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Subject: UltraViolet Class A Disinfection Systems

We wanted to alert you to a potential problem with future certifications of ANSI/NSF Standard 55 Class A UV disinfection systems. The UV Disinfection Guidance manual due out with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) lists the UV dose required for a 4.0 log virus kill as being 186 mJ/cm². This dose is increased to 259 mJ/cm² to account for experimental and other deficiencies for low pressure and low pressure/high output lamps. For medium pressure lamps the dose is increased to 300 mJ/cm² for 4.0 logs of virus inactivation. These doses may not include a factor for end of lamp life, which would increase the dose requirements by 20 to 50 percent. The minimum dose currently required under ANSI NSF Standard 55 is 40 mJ/cm².

The EPA regulation is expected to be promulgated in the fall of 2005. Indications are that the required UV dose will be adopted as proposed. If this is indeed the outcome of EPA's regulatory process, the California Department of Health Services (DHS) will apply the same standard for Class A residential UV disinfection systems. In other words, a UV system will need to achieve the higher dose required by EPA to be certified. Any UV system currently certified by DHS that does not have test data verifying its ability to deliver the higher UV dose will be decertified.