International Ultraviolet Association
6935 Wisconsin Avenue, Suite 207, Chevy Chase, MD 20815

April 11, 2025

Mr. Michael Morris
Planning and Rules Manager
South Coast Air Quality Management District
mmorris@aqmd.gov

Re: Proposed Amended Rule 1171 (Solvent Cleaning Operations)

Dear Mr. Morris:

The International Ultraviolet Association (IUVA) is pleased to provide comments on the South Coast Air Quality Management District's Proposed Amended Rule (PAR) 1171—Solvent Cleaning Operations. IUVA is a nonprofit dedicated to the advancement of ultraviolet technology for public health and the environment, with over 500 members worldwide. Ultraviolet disinfection is a key technology in water treatment and is currently used by public agencies in Southern California because it is a chemical-free alternative that offers advantages such as the ability to inactivate difficult to eliminate pathogens. Our specific comments on the staff proposal follow:

Definitions (c)42

The current definition for Ozone Generators in PAR 1171 states that Ozone is produced by applying an electric potential to oxygen but makes no mention of Ultraviolet Ozone Generators. Ozone can also be generated by using UV light to convert oxygen molecules into ozone. We urge the district to include Ultraviolet Ozone Generators in the definition section (c )(42) of the rule.

Alternative Limits for Electricity and Water Equipment (e ) (2)

Our comments in Section (e)(2) are specific to Ultraviolet Light Treatment Systems and Ozone generation via exposure to UV light, in water treatment/distribution equipment [Table 2-- B(ii) Ozone Generators and B(iii) Ultraviolet Light Treatment Systems]. The preliminary staff report recognizes the challenges faced by water distribution and water treatment facilities in meeting the requirements of PAR 1171. The staff report mentions that various public agencies currently use denatured alcohols & Isopropyl alcohol to clean specific equipment such as ozone generators, UV sterilization systems and electrical components associated with the UV equipment. While we appreciate the consideration for an allowance of 16 gallons per day per facility for Ultraviolet Light Treatment Systems and 30 gallons per year per facility for Ozone generators, we would urge the district to provide a total exemption for UV equipment.

According to the Los Angeles Department of Water and Power (LADWP), "UV technology is ideal for treating chlorine-resistant micro-organisms like Cryptosporidium and Giardia. UV treatment will provide essential disinfection while minimizing disinfection by-products, reducing the need for the required

chlorine doses." LADWP is currently completing the construction of a new Ultraviolet (UV) Disinfection Facility at the Los Angeles Reservoir. This UV plant will treat water leaving the reservoir and entering LA's water distribution system. The new state-of-the-art LA Reservoir UV Disinfection Plant is an important investment in the reliability and safety of LA's drinking water infrastructure, greatly enhancing LADWP's mission to deliver pure, clean refreshing tap water in an efficient and publicly responsible manner.

UV water disinfection units inactivate target pathogens to produce safe water. UV is used as one of the vital safety barriers in water disinfection processes. When UV is absorbed by the DNA in microorganisms; it is damaged so that the microorganism cannot reproduce. Cells that cannot reproduce cannot cause disease.

Keeping UV lamps and sleeves clean is essential for optimal proper performance. Dust, dirt, and residue can accumulate on the lamp and sleeve surface, reducing its efficiency, and potentially leading to device overheating or other cleanness-related issues. Non-alcohol based cleaners may leave residues behind. While some industry sectors may be able to deal with the risk of UV equipment not operating at peak performance and cleanliness issues associated with lower VOC solvents--Water treatment agencies simply cannot take the risk to public health lightly. Requiring water agencies like LADWP to switch from conventional alcohol-based solvents to new solvents that have not been fully validated and approved may result in damage to UV disinfection performance, leading to regulatory compliance and public health issues. We respectfully request that water treatment agencies using UV for water disinfection operations be allowed to use denatured alcohol and/or Isopropyl alcohol to ensure proper operation of their systems.

We appreciate your consideration of the concerns we have raised and look forward to a collaborative rulemaking effort.

Regards,

Ted Mao
President IUVA