OUT WITH THE OLD
IN WITH THE NEW

Replacing a tired UV4000 System
With a NEW  Trojan UVSigna
At the San Diego South Bay WWTP
The Old: Trojan UV4000

Medium Pressure UV Disinfection
Cutting Edge Technology – 1997
Installed in 1998

Pretty Cool Then
But So Were These!

There have been vast improvements in electronics in the last 20 Years
The NEW: Trojan UVSigna

• 1000 Watt Monochromatic Lamps
• Lamps 3X More ENERGY EFFICIENT
• More Efficient Ballasts
• Chemical + Mechanical Wipers
• All Electrical Connections Above water
4.3 Spectrum

The output spectrum of Trojan's MP lamp was measured in Trojan's far field irradiance lab. Lamps from both suppliers and all lengths were measured. It was found that all of Trojan's MP lamps, UV4000, SWIFT12, SWIFT24 and SWIFT30 have the same spectrum.

Figure 4.3.1: MP lamp spectrum.
NEW: Light Concentrated @ 254 nm
Optimal Germicidal Wavelength

3.2 Spectrum
Amalgam lamps are monochromatic, with output primarily at 254nm. The output spectrum of the amalgam lamp was measured in Trojan's far field irradiance lab.
Proposals Evaluated by Lee and Ro, Inc.
Title 22 Unrestricted re-use Criteria

SCOPE OF SUPPLY FOR SAN DIEGO SBWRP WASTEWATER TREATMENT PLANT
ULTRAVIOLET DISINFECTION EQUIPMENT – TROJANUVSigua™

Prepared for: LEE & RO, Inc.

Submitted by: Trojan Technologies

Trojan Quote: 211662

Design Criteria:
- Current Peak Design Flow: 15 MGD
- UV Transmission: 62 % minimum
- Total Suspended Solids: 5 mg/l (30 Day Average, grab sample)
- Minimum Dose: 100 mJ/cm² MS2 Red (NWRI 2012)
- Discharge Limit: 2.2 Total Coliform, 7 Day Median
Lamp Access Above the Water
Banks Can Be Individually Extracted
Trojan UVSigma
Easy to Retrofit into Existing Channels
Typical Retrofit Installation
Trojan UVSigna Is Being Installed During Low Demand Period for Recycled Water
System Start-Up  May 2020