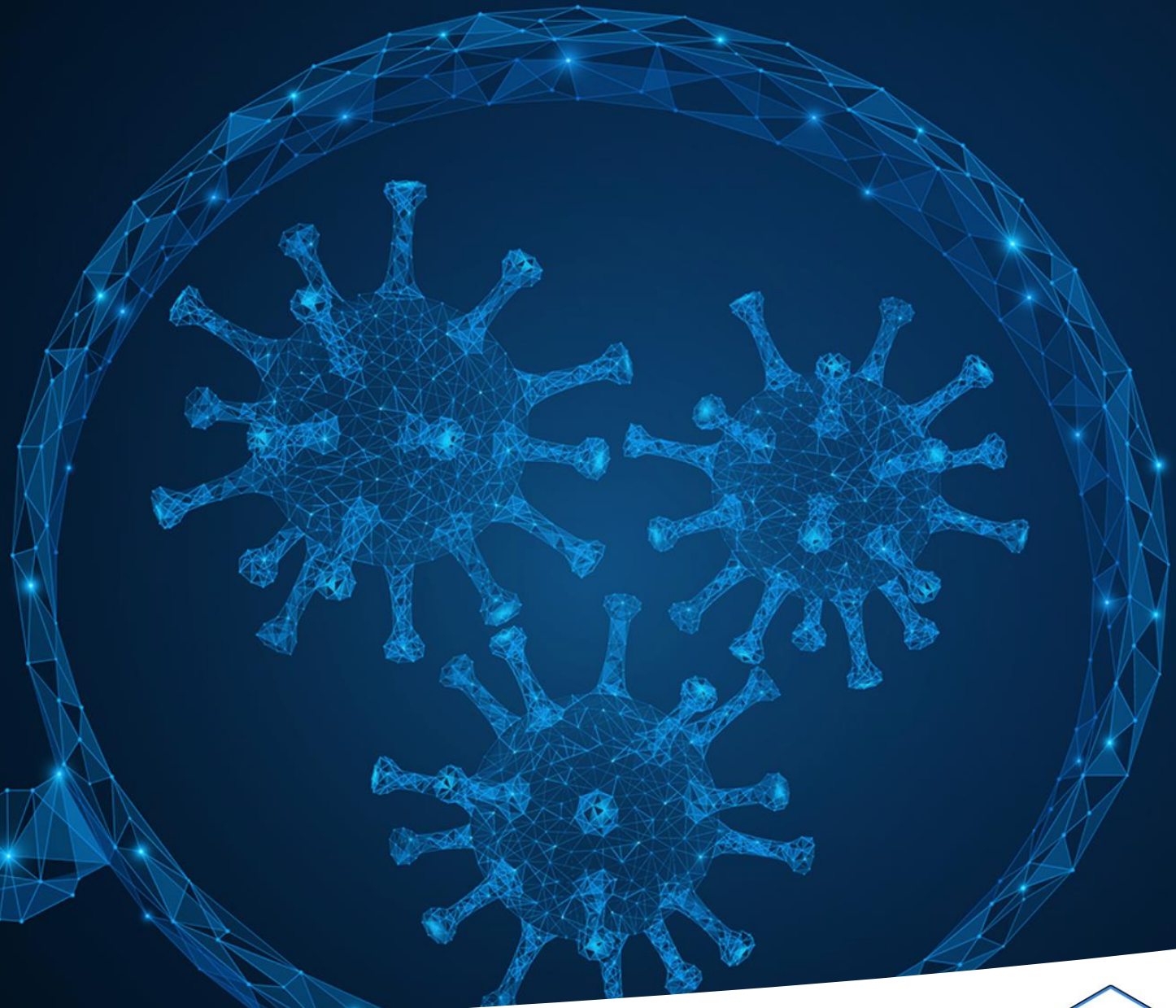


# NoroClean Environmental Surveillance Rapid On-site Testing

- Surface Virus Presence Test
- Disinfection Efficiency
- Monitoring

*Discovery of the SARS-Cov-2 virus in an environment not only means that the risk of transmission is present but also that it was likely brought into that location by a person.*

*With physical symptoms not always present in people with COVID-19, environmental monitoring can be used to understand the risk in your production and whether to take crucial actions including, increased disinfection, human testing, and prompt contact tracing to reduce risk.*



**Reduce transmission  
Restore confidence  
Keep your production running**



# Environmental Surveillance Surface Testing

How do you know if your surfaces are safe?

**NoroClean knows that disinfection accountability is key for maximum COVID-19 exposure mitigation.**

That is why we use environmental surface testing for disinfection validation to ensure all areas and equipment are properly disinfected.

Utilizing surface validation increase the effectiveness of cleaning and disinfection policies and procedures.

We deploy two different types of on-site rapid surface testing **ATP & qPCR.**

## What is ATP Testing?

- The ATP system can evaluate the effectiveness of disinfectants and measure the performance of disinfection staff and ensure compliance with cleaning protocols. ATP system verifies that the optimal levels of cleanliness are met to keep crew safe and uphold the highest standards of hygiene. Studies by the CDC have recommended ATP testing as way to verify cleaning.
- ATP test swabs are field usable units that test for the presence of adenosine triphosphate. Adenosine Triphosphate is the primary energy molecule that is present in all living organisms. This test method has a long track record of use in medical industries where sterile or near-sterile conditions are required.
- This type of testing is effective for testing surfaces for COVID-19 pathogens, the client can be assured that all biological materials have been fully removed.



## What is qPCR Testing?

- The qPCR test method utilizes a lab analysis called polymerase-chain-reaction. This analysis can detect even very small amounts of the RNA (genetic material) that is very specific to a virus or other organism.
- qPCR is the gold standard measurement technique for COVID-19. This technique is used in various industries and settings for the identification and quantification of organisms including Legionella, E. coli and other organisms of concern. The technique works by amplifying and detecting fragments of nucleic acids (i.e. DNA or RNA). As qPCR does not rely on culturing it can be done rapidly, in hours rather than days.





# UV-C Tracking Kill Rate and Target Disinfection

How do you know if UV-C is treating an area?

NoroClean's knows that visibility for accurate and targeted disinfection is pivotal for maximum COVID-19 exposure mitigation.

That is why we use UVC Dosimeters to ensure all areas and equipment are properly disinfected.

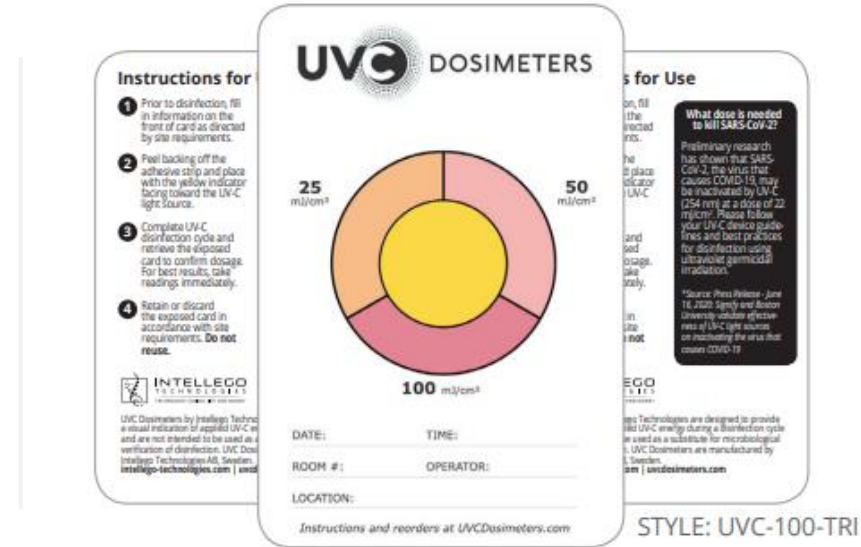
Research has shown that UVC dose of 5mJ/cm<sup>2</sup> results in a reduction of the SARS-CoV-2 virus of 99% in 6 seconds.

It was also determined that a dose of 22mJ/cm<sup>2</sup> will result in a reduction of 99.9999% in 25 seconds.



## How do UVC Dosimeters work?

- Yellow indicator changes color with exposure to UV-C irradiation.
- Dosage levels are calibrated at 25, 50, and 100 mJ/cm<sup>2</sup>.
- Provides visible evidence that surfaces have received desired amount of UVC for desired kill rate.
- Helps with auditing, record keeping, and training.



Visibility, Transparency, and Accountability are key for Maximum Infection Prevention.

