



## KEY SAFETY INFORMATION FOR COVID-19 AND OTHER BIOHAZARDS

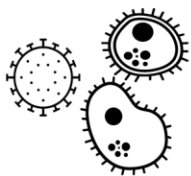
Based on the available data on the COVID-19 virus and knowledge about similar viruses, experts agree that the occupational risk of infection to wastewater workers from the COVID-19 virus is low, and not greater than those from other pathogens typically present in wastewater. The following are key points:

- **The COVID-19 virus is mainly transmitted through respiratory droplets** produced when an infected person coughs, sneezes, or talks, or by direct contact with an infected person, with possible further transmission by contact with contaminated surfaces.
- **Transmission via wastewater aerosols, fecal wastes, wastewater, sludge, or biosolids is unlikely.** Risks of transmission are site- and job-specific: the type and level of hazards vary by task and by the conditions, equipment, and configuration at each utility. Taking precautions that protect workers against typical wastewater pathogens should also adequately protect workers against the COVID-19 virus.
- **Infectious COVID-19 virus has not been detected in wastewater, sludge, and biosolids thus far.** Although the presence of infectious COVID-19 virus in these environments cannot be ruled out, it appears unlikely to be present at concentrations that would cause a measurable health risk.
- **The risk of contracting COVID-19 virus from exposure to wastewater, sludge, and biosolids is considered low,** due to its unlikely presence and the expected dilution and die-off of the virus. The risk from aerosols in wastewater and biosolids systems is similarly low for these reasons.
- **If the COVID-19 virus is found to be present in a wastewater matrix, treatment processes for wastewater and biosolids are expected to significantly remove and/or inactivate this virus.**
- **The COVID-19 virus is not expected to pose any new or increased risks for infection compared to what workers are already exposed to.** Workers in the wastewater environment should protect themselves by consistently and properly applying appropriate safety measures and best practices.
- **Standard personal protective equipment (PPE)** includes waterproof gloves, rubber boots, a uniform or waterproof coveralls, a covering for the mouth and nose (medical grade mask or respirator), and eye protection (e.g., safety glasses, goggles, or a face shield).
- **Face coverings such as shields, masks, and respirators can protect workers from splashes, sprays, and particulate materials and reduce the chances that sick workers will spread their illnesses.**
- **Because the specific biological hazards vary by job activity and wastewater system, it is necessary for facility managers and staff to conduct a Job Safety or Hazard Analysis.** This analysis identifies each task in a job, defines the potential hazards, and outlines critical safety practices.
- **A Job Safety or Hazard Analysis should be used to determine conditions where a respirator (such as an N95 mask) might be appropriate for protection from inhalation of aerosols.**

This information is from WEF's Blue Ribbon Panel on Coronavirus.

For more information visit [www.wef.org/coronavirus](http://www.wef.org/coronavirus)

# How to Stay COVID-19 Free at the WRRF



## SEWAGE IS FILTHY

Good hygiene and PPE protect workers from most infections



## WASH YOUR HANDS WELL

With soap and water for 20 seconds or sanitizer with at least 60% alcohol



## DO NOT TOUCH YOUR FACE

Do not touch eyes, mouth, nose or cuts when handling sewage



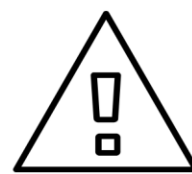
## WEAR PROPER PPE

Make sure you wear waterproof gloves and rubber boots



## CLEAN DIRTY SURFACES

Clean frequently touched surfaces with 70% ethanol or 0.5% chlorine



## HAZARD ASSESSMENTS

Consider biological hazards before performing a task



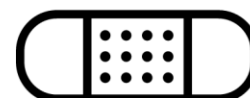
## REMOVE DIRTY CLOTHES

Soiled clothes should be removed before eating or leaving work



## EAT IN CLEAN AREAS

Eat, smoke or chew gum in designated clean areas



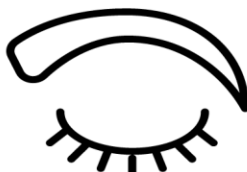
## COVER SORES AND CUTS

Use clean, dry bandages to cover cuts, wounds and sores



## WASH HANDS

After handling sewage, before eating, before and after toilet use



## FLUSH EYES WITH WATER

If sewage splashes in your eyes, flush with clean water



## LAUNDRY WITH CHLORINE

Laundry work clothes at the end of the day with 0.05% chlorine