



Fire Department COVID Response Mobile Decontamination Module (CRM) Guide

To assist in this year's fire season response to the COVID Pandemic local government fire departments can assist in the containment of the virus by building a mobile decontamination unit or COVID Response Module (CRM). These units will be used to decontaminate fire vehicles and equipment on wildland fire incidents.

Many local volunteer, county and municipal fire departments already have the equipment necessary to "build" a mobile CRM.

Following is information that will assist you and your department in building a Mobile CRM.

Please contact your local New Mexico State Forestry District Office with further questions and assistance.

- **CRM Decon Units will be required to wear PPE and change out regularly (the sending agency will provide adequate supplies with the resource)**
- **All COVID -19 Precautions including Social Distancing is a requirement while decontaminating equipment and vehicles and while assigned to the incident.**



The goal is to deliver a CDC Approved COVID-19 disinfectant, with a FINE MIST at a sustainable 35 PSI for a complete vehicle (inside/outside), equipment, on “high touch” surfaces and other sites as needed.

Equipment Needed for Compressed Air System to generate a sustainable 35 psi:

System 1

Generator/Compressor System

Portable generator

20 - gallon air compressor with in-line filters

Air nose with quick connectors

Paint “can” type sprayer, regulator built in preferable.

35 psi must be sustained to produce a fine mist of disinfectant.

System 2

Self Contained Breathing Apparatus (SCBA) System

SCBA Bottles (Spray time will vary with tank capacity)

SCBA Harness or back- back

“Buddy Breathing quick connect” on the LOW pressure side

“Quick connect” connectors for air hose

Paint spray can (with built in regulator is preferred)

Access to a mobile SCBA refill system or compressor

(Approximately 1.5 bottles may be required to DECON 1 vehicle)

Hand – pump or garden type sprayer’s can be used for portability in some situations.

This is not recommended for primary use.



Photo illustrating SCBA Compressed Air System in use. Remember that all operators are required to wear ALL PPE during decontamination process: head wear, eye protection, face masks, gloves, disposable gown or body coverings.



APPROVED DISINFECTANTS & USE
NEW MEXICO STATE FORESTRY- DISINFECTANT DECONTAMINATION AND
SPRAYER APPLICATION INSTRUCTIONS

The disinfectant sprayer can be used anytime that a Command Vehicle, Engine or Crew Carrier needs to be cleaned, not just after a suspected COVID-19 contamination. Whether you are using the prepared solution created by Kosher salt, commercially available disinfectant tablets or a bleach (sodium hypochlorite) product, the spray application is similar. The average shelf life once prepared is approximately three (3) days so date tagging the solution container is critical. Any solution after three days should be disposed of.



Solution Preparations:

Ecolox Tech's Electrolyzed Water System

Generates hypochlorous acid (HOCl) with an ORP between +800 and +1000 (setting 3). "Setting 3 is the preferred cycle for disinfectant purposes."

Instructions for Generate Hypochlorous Acid (HOCl) Cleaner & Disinfectant

1. Add tap water (or purified water) up to the 1 Liter mark
2. Using 1 gram measuring spoon, add 1 gram Kosher salt per 1/2 Liter of water *
3. Add 1 tsp. of distilled white vinegar** (5%) (Optional but recommended to optimize pH)
4. Place lid and plug-in the power supply ***
5. Press to Power On
 - Press once for Setting 1



- Setting 1 – System runs for 3 minutes Filled to 1 Liter mark – generates 40 ppm * Use only food grade salt (NaCl). It is recommended to use Kosher salt only since it contains no iodine.
- Press twice for Setting 2
- Setting 2 – System runs for 5 minutes Filled to 1 Liter mark – generates 60 ppm (for sanitizing fruits and vegetables)
- **Press three times for Setting 3**
- **Setting 3 – System runs for 8 minutes Filled to 1 Liter mark – generates 100 ppm Filled to 0.5 Liter mark – generates 200 ppm**

** Adding vinegar will lower pH therefore allowing hypochlorous acid (HOCl) to be the dominant free chlorine molecule. *** Power supply must be dry.

The CDC recognizes electrolyzed water, also called "superoxidized water", and the microbiocidal activity of hypochlorous acid (HOCl) in its guidelines for disinfection and sterilization in healthcare facilities.

FDA cleared per Food Contract Notification #1811 and USDA Organic.

Defense Soap Defense Disinfectant Tablets

Defense Soap's disinfectant tablets are a safe, EPA-registered bleach alternative in effervescent tablet form. Using the power of hypochlorous acid, our disinfectant is effective against a broad range of microorganisms which includes C. difficile spores, Hepatitis B, and Norovirus.

- The single dose tablet delivers accurate strength solution every time, eliminating the need to measure and pour guesswork.
- Simply drop 1-2 large tablets into a sprayer for every gallon of water used or 1-2 small tablets into a sprayer for every quart.
- One gallon covers about 6,000 square feet (about four wrestling mats). If not using an electrostatic sprayer, dispense disinfectant with a pump sprayer and spread evenly with a microfiber mop. The disinfectant must remain on the mats 4-10 minutes (depending on strength of solution) to achieve the maximum kill of microorganisms.

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*Defense Soap's Disinfectant Tablets recently made the EPA's list of approved antimicrobial products for use against Novel Coronavirus SARS-CoV-2, the Cause of COVID-19**





Sodium Hypochlorite (Bleach)

Over the Counter Bleach, Full Strength and Non-diluted

- Recommend use of [EPA-registered household disinfectant external icon](#). Follow the instructions on the label to ensure safe and effective use of the product.
- Many products recommend:
 - Keeping surface wet for a period of time (see product label)
 - Precautions such as wearing gloves and making sure you have good ventilation during use of the product.
- **Diluted household bleach solutions may also be used** if appropriate for the surface.

Check the label to see if your bleach is intended for disinfection, and ensure the product is not past its expiration date. Some bleaches, such as those designed for safe use on colored clothing or for whitening may not be suitable for disinfection.

Unexpired household bleach will be effective against coronaviruses when properly diluted.

Follow manufacturer's instructions for application and proper ventilation. Never mix household bleach with ammonia or any other cleanser.

Leave solution on the surface for at least 1 minute.

APPLICATION PROCEDURES:

- **Pour pre-mixed disinfectant from storage bottle (check date to ensure that the created date is no greater than 3 days old) into the reservoir on the sprayer. One full reservoir is enough solution to spray a vehicle inside and out with a fine mist.**
- **Assure that an in-line filter is attached before the hose connection to prevent any contamination of the hose line and sprayer. Routine cleaning of the filter is highly recommended.**

- Adjust the sprayer's in-line regulator to approximately 35 psi. This psi has been determined to distribute the appropriate amount and pattern desired for this product. Be aware that it is difficult to get this number exact, so get as close as you can.
- Don mask, eye protection and gloves. While the disinfectant is non-toxic and safe for skin contact, we will be wearing PPE while aerosolizing to protect from any airway or eye irritation.
- Begin spraying the interior of the cab area first. While spraying, keep in mind that our goal is to have a contact time of 4-10 minutes. That means we want the disinfectant to stay in contact with the surface for as close to 4-10 minutes before drying. Therefore, we don't want to spray too little and have it dry too quickly, or spray too heavily and pool unnecessarily. Once spraying is complete, the doors can remain open for faster drying.
- Spraying can now commence on spraying any compartments and then closing those doors. Now finish spraying the external areas of the vehicle that have received potential contact.
- After 4-10 minutes has passed, open the doors. Wipe any excess disinfectant that has still not dried. There will also be a slight film on any glass that was sprayed, so please wipe down with glass cleaner.
- Hand clean any area that you might think need some extra attention, such as door handles, radio microphone and steering wheel.
- After all spraying is complete, run clean water through the sprayer to flush paint pot and nozzle.

Please use common sense when working the sprayer around electronics. Excess liquid of any kind can easily damage them, so keep the mist light or clean by hand.

The above excerpt is directly from the CDC's link:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html>

Links to assist:

<https://www.ecoloxtech.com/eoone/>

[Rio Rancho FD Decon Video](#)

