ALLEGANY COUNTY MARYLAND	**Allegany County Emergency Services Board Policies and Standards**
Subject: Exposure Policy	**Approved: December 9, 2025**
Approved: W. Shannon Adams,	**Emergency Services Board Chair Shannon Adams**

I. Introduction

The purpose of this Exposure Control Plan (ECP) is to prevent or minimize occupational exposure to infectious diseases and carcinogenic hazards among all Allegany County Department of Emergency Services (ACDES) personnel and Fire-Rescue members. This plan also ensures compliance with OSHA 29 CFR 1910.1030 – Bloodborne Pathogens, OSHA 29 CFR 1910.134 – Respiratory Protection, CDC recommendations, and other applicable federal, state, and local regulations.

Infection Control Officer (ICO) — Oversees implementation, compliance, surveillance, and annual review of the ECP. Susan Clark- Cecil (301)-876-3856
On-Duty Supervisors (Duty Lieutenants) — Serve as the first point of contact for reporting exposures. Duty Phone (240)-727-4022

II. Scope

This plan applies to:
- All career and volunteer members providing patient care or potentially exposed to infectious agents.
- All ACDES facilities, vehicles, and work environments.

Annual Review: The ECP shall be updated annually or as needed to reflect regulatory changes, emerging diseases, or operational updates.

Agency Partnerships: ACDES maintains collaborative relationships with:
- Allegany County Health Department
- Local hospital Infection Prevention teams
- Maryland Department of Health
- EMS and Fire-Rescue partner agencies

III. Recordkeeping

- Exposure Incident Records: Maintained for 30 years from date of separation, per OSHA.
- Medical Records: Stored by the Allegany County Risk Manager when treatment follows an exposure.
- Training Records: Bloodborne Pathogen training documentation retained for at least 3 years.

IV. Training

All members shall receive:
- Initial orientation training on bloodborne and airborne pathogens.
- Annual refresher training (OSHA 1910.1030 compliant).
- Just-in-time training when new infectious threats emerge (e.g., COVID-19, Ebola, novel influenza).

Training must include:
- PPE selection, use, and disposal
- Hand hygiene techniques
- Sharps safety
- Biohazard waste handling
- Post-exposure protocols

V. Personal Protective Equipment (PPE)

PPE is mandatory for all patient care interactions due to unknown patient medical history.

Minimum PPE for patient care:
- NFPA 1999-certified exam gloves
- ANSI Z87.1-2015 approved protective eyewear

Additional PPE when indicated:
- NIOSH-approved N95 or P100 respirator (fit-tested annually)
- Fluid-impermeable gowns or disposable protective sleeves
- Face shields
- Double gloving for gross contamination

N95 Respirator Use:
- Required for suspected airborne diseases (TB, meningitis, measles, pertussis, COVID-19, etc.)

- Discard after use with confirmed or suspected airborne pathogens
- Reusable up to 5 patients unless visibly soiled or compromised

VI. Regulations and Compliance

A. Hand Hygiene
- Wash with soap and warm water for at least 20 seconds
- Use alcohol-based sanitizer (≥60% alcohol) when handwashing is not immediately available

B. Sharps Safety
- No recapping needles
- Immediate disposal into approved sharps container
- Maintain eye contact when passing sharps

C. Biohazard Waste Disposal
- All contaminated materials in red biohazard bags (double bag if necessary)
- Sharps containers sealed before hospital transfer

D. Equipment and Vehicle Decontamination
- Daily cleaning of stations and apparatus
- Disinfect equipment after each patient contact using approved hospital-grade disinfectant or 1:10 bleach solution (contact time: 10 min)

VII. Immunizations and Screening

Members are strongly encouraged to remain current with:
- Hepatitis A & B
- Seasonal Influenza
- Tdap (Tetanus, Diphtheria, Pertussis)
- COVID-19 vaccines as recommended by CDC

Baseline TB screening upon hire and periodic re-testing per MDH guidelines.

VIII. Post-Exposure Management

Definition of 'Risk' Exposure:
- Contact of eyes, mouth, mucous membranes, non-intact skin, or percutaneous injury with potentially infectious materials
- Prolonged (>30 minutes) blood or body fluid contact with intact skin
- Unprotected exposure to suspected airborne disease

Immediate Actions for Exposed Personnel:

1. Wash affected area with soap and water (or flush eyes with sterile saline for ≥15 seconds)
2. Remove contaminated clothing/PPE
3. Notify Duty Lieutenant and ICO immediately
4. Complete Exposure Report before end of shift
5. Seek medical evaluation at designated facility

ICO/Duty Lieutenant Responsibilities:
- Initiate case history and documentation
- Coordinate source patient testing when applicable
- Ensure exposed member receives prompt evaluation and prophylaxis when indicated
- Maintain confidentiality

IX. Special Considerations

- Emerging Infectious Diseases: For novel pathogens, follow the most current CDC/MDH directives immediately, even if they exceed this plan's provisions.
- Cancer Prevention: Follow NFPA 1581 guidance for contamination control, including on-scene gross decon for turnout gear.

X. Emerging Disease Response Annex

This annex ensures rapid adaptation of infection control measures to newly identified pathogens.

Upon CDC or Maryland Department of Health notification of an emerging disease threat:
- Update PPE requirements immediately
- Disseminate new screening protocols to all personnel
- Revise decontamination and patient handling procedures as needed
- Provide immediate training and situational updates
- Implement enhanced exposure tracking and reporting

XI. Enforcement

Non-compliance with this ECP may result in corrective action up to and including suspension or termination, per ACDES policy.

XII. Firefighting Carcinogen

Fire fighters are occupationally exposed to combustion products of modern residential, commercial, vehicle, wildland and other fires that contain many hazardous substances. These include carcinogens (i.e., cancer-causing chemicals) present during fire responses and at the fire station. Years of research have clearly documented fire fighters' exposure to carcinogens in all

phases of fire response, including overhaul. Recent studies have also addressed combustion of all the new synthetic products present in homes, cars and factories. A carcinogen exposure to products of combustion does not require visible smoke. Chronic exposure to heat, smoke and toxicants puts fire fighters at higher risk for developing cancer when compared to non-fire fighters. Inhalation, ingestion and absorption of toxic substances causes cell damage that may lead to cancer.

EXPOSURES ON THE FIRE GROUND

When responding to a fire, there are many opportunities for exposure to carcinogens. A wide range of chemicals have been detected in smoke and soot during fire suppression and overhaul. These contaminants cover personal protective equipment (PPE) and the equipment used for fire activities and they remain there until washed off. These lingering contaminants can lead to additional exposures if fire fighters remove their self-containing breathing apparatus (SCBA) at any time while on the fire ground and – if they do not perform preliminary exposure reduction (on-scene and post fire gross decontamination) – these contaminants can spread to the apparatus' cab and/or back to the fire station.

EXPOSURES IN FIRE STATIONS

Many of the contaminants that fire fighters encounter during fire responses can be tracked back to the fire stations where they live throughout their shifts when not responding to a call. In a study of dust samples in 26 fire stations in five states, Shen and colleagues1 documented phosphorous-containing and polybrominated diphenyl ether flame retardant levels that were higher than those previously reported in homes and other occupational settings around the world. The study was replicated in Canada where it demonstrated the same findings. Daily exposure to diesel exhaust in the firehouse can also contribute to the development of cancer. Analysis of the kitchen and bunkroom walls and furniture in firehouses reveals a tremendous amount of diesel exhaust particles. These dangerous particles are inhaled and absorbed every shift and cause significant harm to fire fighters. Diesel exhaust was classified as a group 1 carcinogen by the World Health Organization (WHO) and the International Agency for Research on Cancer (IARC).

ROUTES OF EXPOSURE

1. Inhalation Exposures - The most common route of exposure to carcinogens for fire fighters is through inhalation. When responding to a call, the chemicals released in the smoke and soot do not disappear when the fire is extinguished. These chemicals remain airborne through all phases of fire activities. Research has confirmed carcinogen exposures during the overhaul phase, a period when fire fighters have traditionally not worn SCBA. Inhalation can also occur from various sources including off-gassing from contaminated equipment and PPE and diesel

exhaust commonly at the station. It is important to wear your SCBA through all fire suppression activities and perform on-scene gross decontamination to minimize the risk of inhaling carcinogens.

2. Dermal Exposures - Exposure can also occur through dermal absorption when contaminated particulates are absorbed through the skin. Commonly, dermal absorption to carcinogens found in soot can occur even while wearing turnout gear when soot is transferred to the fire fighter's skin either during firefighting activities or while removing contaminated PPE. Elevated temperatures, as routinely experienced by fire fighters, have been associated with increased dermal absorption. Steps can be taken to reduce dermal exposure and include on-scene gross decontamination, wiping of skin, and showering and laundering station work uniform upon arrival back at the station.

3. Ingestion Exposures - For fire fighters, ingestion is a less common route of exposure, but it does occur. Soot is the typical exposure source as it transfers to fire fighters' hands and if not washed can then be ingested through eating, drinking and putting hands in your mouth. In a 2020 research study that evaluated chemicals in the air and on fire fighter ensembles, researchers identified that gloves are some of the most contaminated. Some gloves had high contaminant levels and were generally more contaminated than turnout coats. The study identified that routine gross decontamination appeared to reduce many of the contaminants. This highlights the importance of on-scene gross decontamination of PPE and equipment, hand washing and showering within the hour of returning to the station. To protect yourself from exposures, the following actions are recommended:

- Use SCBA from initial attack through overhaul. (Not wearing SCBA in both active and postfire environments is the most dangerous voluntary activity in the fire service today).
- Perform on-scene gross decontamination on PPE to remove as much soot and particulates as possible. Wet decon is the most effective.
- Use wet wipes to remove as much soot as possible from head, neck, jaw, throat, underarms, hands and all exposed areas of skin immediately and while on the scene.
- Bag contaminated gear on scene and store them in an outside compartment. Never in the cab.
- Change your clothes and wash them immediately after a fire. If possible, have a change of clothing in a personal bag.
- Shower thoroughly after a fire.
- Clean PPE, gloves, hood and helmet (including helmet liner) immediately after a fire. Follow NFPA 1851 recommendations.

- Decontaminate the interior of apparatus after fires regularly.
- Keep bunker gear out of living and sleeping quarters.
- Use a diesel exhaust capture system.
- The importance of annual medical examinations cannot be overstated – early detection and early treatment are essential to increasing survival and improving outcomes.
- Track your exposures using the NFORS Exposure Tracker app to log exposure and incident details in a private, encrypted and secure online environment.

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Exposure Report Form

Incident Information

Incident #: _____ Exposure Date: _____

Incident Location: _____

Incident Type: _____

Member Information

Name: _____ ID Number: _____

Station: _____ Age: _____ Sex: M / F

Cell Phone: _____ Home Phone: _____

Source Patient Information

Name: _____ Age: _____ DOB: _____

Sex: M / F

Transporting Unit: _____ Receiving Hospital: _____

Exposure Details

Date of Exposure: _____ Incident Number: _____

Hospital Nurse/Doctor Notified: Yes / No Department Officer Notified: Yes / No

PPE Worn (Check all that apply):
[ ] Gloves [ ] N95 [ ] Eye Protection [ ] Gown [ ] Face Shield [ ] Other: _____

Type of Exposure (Check all that apply):
[ ] Needle Stick [ ] Airborne [ ] Blood/Fluid Splash to Eyes [ ] Mouth [ ] Skin Contact
[ ] Broken Skin [ ] Intact Skin [ ] Other: _____

Area of Body Exposed

[ ] Face/Neck [ ] Hands/Arms/Fingers [ ] Chest/Back [ ] Legs/Feet [ ] Respiratory Tract [ ] Other: _____

Symptoms Experienced

[ ] None [ ] Eyes Irritated/Red [ ] Dizziness/Headache [ ] Cuts/Abrasions [ ] Nose/Throat Irritation
[ ] Skin Rash/Itching [ ] Cough [ ] Nausea [ ] Other: _____

Narrative (Describe What Happened)

_____
_____
_____
_____
_____

Notification and Follow-Up

Notified Department Representative: _____ Date/Time: _____

Member Signature: _____ Date: _____

Officer Signature: _____ Date: _____

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Infectious Disease Reference Table

This reference table provides quick guidance for common infectious diseases that ACDES personnel may encounter. It includes the mode of transmission, PPE requirements, post-exposure actions, and prophylaxis guidance.

Disease	Transmission	PPE Required	Post-Exposure Actions	Prophylaxis
Hepatitis B (HBV)	Bloodborne	Gloves, Eye Protection if splash risk	Wash area, report to ICO, source testing, baseline labs	HBV vaccination or HBIG if indicated
Hepatitis C (HCV)	Bloodborne	Gloves, Eye Protection if splash risk	Wash area, report to ICO, source testing, baseline labs	No vaccine; monitor labs
HIV/AIDS	Bloodborne	Gloves, Eye Protection if splash risk	Wash area, report to ICO, source testing, baseline labs	PEP within 72 hrs if indicated
Tuberculosis (TB)	Airborne	N95 or P100 respirator	Mask patient, wear respirator, report to ICO	Consider prophylaxis per medical evaluation
Influenza	Droplet	Surgical mask, Gloves	Report to ICO, monitor for symptoms	Annual influenza vaccine
Measles	Airborne/Droplet	N95 respirator, Gloves	Report to ICO, monitor for symptoms	MMR vaccine if non-immune
COVID-19	Airborne/Droplet/ Contact	N95 respirator, Eye Protection, Gown, Gloves	Report to ICO, follow CDC quarantine/isolation guidelines	Vaccination per CDC guidance
Pertussis (Whooping Cough)	Droplet	Surgical mask, Gloves	Report to ICO, monitor for symptoms	Antibiotics if indicated, Tdap vaccine
Varicella (Chickenpox /Shingles)	Airborne/Contact	N95 respirator, Gloves	Report to ICO, avoid contact with high-risk patients	Varicella vaccine if non-immune

Rabies	Bite/Saliva into wound	Gloves	Wash thoroughly, report to ICO, immediate medical evaluation	Rabies post-exposure prophylaxis

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Cleaning & Disinfection Standard Operating Procedures (SOPs)

These SOPs outline the cleaning and disinfection requirements for ACDES stations, apparatus, and equipment to minimize the risk of infectious disease transmission. All personnel are responsible for adhering to these procedures during and after every shift, and immediately following potential contamination incidents.

1. Daily Station Cleaning

- Sweep and mop floors using approved disinfectant.
- Wipe down high-touch surfaces (door handles, light switches, tables, keyboards, phones) with EPA-approved disinfectant wipes.
- Empty trash and biohazard receptacles; replace liners.
- Clean bathrooms and kitchens with hospital-grade disinfectant.
- Launder any station uniforms contaminated with body fluids per OSHA 29 CFR 1910.1030.

2. Apparatus Cleaning

- Perform a wipe-down of all cab and patient compartment surfaces at the start and end of each shift.
- After patient transport, disinfect stretcher, rails, handles, and equipment mounts.
- Mop floors of patient compartments with approved disinfectant.
- Dispose of waste per biohazard disposal guidelines.

3. Equipment Cleaning

- After each patient use, clean and disinfect non-disposable equipment (BP cuffs, stethoscopes, pulse oximeters).
- Use 1:10 bleach solution or EPA-registered disinfectant for at least 10 minutes contact time.
- Rinse with clean water and dry with disposable towels.
- For electronic devices, use manufacturer-approved disinfectant wipes; avoid saturation.

4. PPE Decontamination & Disposal

- Single-use PPE must be discarded immediately after patient care.
- Reusable PPE (e.g., goggles, face shields) must be cleaned with hospital-grade disinfectant after each use.

- Contaminated uniforms must be laundered at the station or placed in red biohazard bags for off-site cleaning.

5. Post-Exposure Cleaning (Gross Contamination)

- Don full PPE including gloves, gown, eye protection, and N95 respirator.
- Remove gross debris prior to disinfection.
- Use 1:10 bleach solution or approved hospital disinfectant for all contaminated areas.
- Ensure adequate ventilation when using disinfectants.
- Dispose of cleaning materials as biohazard waste.

6. Special Situations

- For suspected airborne infectious disease transports, ventilate patient compartment for at least 30 minutes after use.
- For C. diff contamination, use EPA-approved sporicidal disinfectants.
- For mold or hazardous material contamination, follow HazMat protocols.