Adams and Jefferson County Hazardous Response Authority
FIELD OPERATING GUIDELINES

CHEMICAL ID
F.O.G. #: 1400 **CATEGORY: Chemical ID**
DATE: February 9, 2023 **PAGES:** 2

I. Purpose:

A. To define guidelines for chemical identification.

II. Guideline:

A. Chemical Identification: Being able to accurately identify the type of hazardous material present and the primary hazard they involve, AJCHRA members must be able to evaluate the containers, shapes, sizes, labeling, identification placards, shipping papers, locations and other visual indicators to determine the chemical(s) involved in the incident.

1. In order to aid in the identification of the chemical hazard(s) a minimum of THREE resources MUST be used before considering any Offensive actions.

    a) Examples of these resources are, but not limited to: CAMEO computer program, DOT Guide, CHRIS Manuals, Chemical SDS, Manufacturer Information, CHEMTREC, or other acceptable sources.
        1) Many computer-based programs have already incorporated three or more data bases into the program. This must be confirmed by the users.

    b) Radioactive material and unknown chemicals must be identified cautiously. Monitoring equipment can help identify the hazard class and, in some cases, even the specific chemical or threat.

2. The following types of detection and monitoring equipment are available on the response units of the AJCHRA:

    a) Radioactivity detection and monitoring equipment
    b) Combustible gas detectors
    c) Wireless network gas monitoring
    d) Photo Ionization Detection (PID)
    e) Multi Gas Detection
    f) Raman near infrared spectroscopy
    g) Fournier Transform Infrared spectroscopy (FTIR)
    h) Sonic Acoustic Wave (SAW)
    i) Ion Mobility Spectrophotometer (IMS)
    j) Refrigerant gas detection
    k) Radio Isotope Identification
    l) pH and other test papers

m) Spill-Fyter® test strips
n) Liquid chemistry Chemical Classification Kit
o) Colorimetric Tube detection equipment
p) High-Pressure Mass Spectrometry (HPMS)
    1) Trace-level detection and analysis of illegal drugs, explosives, chemical warfare agents, their precursor materials and hazardous chemicals.

3. SITE MONITORING: Site monitoring shall be conducted on all hazardous materials incident scenes utilizing the proper type of monitoring equipment.

    a) Monitoring is conducted in the establishment of the incident perimeter zones.

        1) When monitoring is not available documented resources such as the Emergency Response Guidebook or facility preplans shall be used to determine acceptable zones.

    b) When possible, monitoring shall be conducted in EACH of the zones to ensure that exposure limits are permissible. A systematic method should be used to develop benchmark readings to evaluate changes from specific locations at different times. Monitoring results should be documented using a consistent process. Many times, using position on the clockface will help identify points where readings are taken.

    c) When responders exit the decontamination area, monitoring of the decontamination materials should be conducted. PPE worn by responders into the hot zone or used in the decontamination corridor, should be tested for off-gassing in addition to chemical swipe tests on the PPE worn by those hazardous materials team members.

III. References:

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