# Chemical Release Investigation Kit & Template (CRIKT)
## For Local Health Departments

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>TRADE NAME(S)</th>
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<tbody>
<tr>
<td>Fluorine</td>
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### PREPARING FOR THE INVESTIGATION

#### Know the Agent
- Fluorine is a naturally-occurring, pale yellow-green gas with a sharp odor.
  - Read about fluorine in the Fluorine Fact Sheet.
- Contact:
  - Public Health Preparedness & Response Branch (PHP&R): 888.820.0520.
- Print and review form:
  - Chemically Exposed Persons Line Listing.

### CONDUCTING THE INVESTIGATION

#### Evaluate Release/Exposure
- Define scale/scope of exposure (work with N.C. Emergency Management, HazMat, an Environmental Health Specialist at the local or state level, N.C. Department of Environment and Natural Resources [DENR], and U.S. Environmental Protection Agency [EPA] if applicable).

#### Identify Route of Human Chemical Exposure
- Identify route of exposure:
  - Inhalation
  - Dermal (skin) & eye contact
- Interview responders and/or exposed individuals to obtain additional information.
about the fluorine exposure within 24-hours.

| Describe Exposed Population | • Determine the following:  
| |   o Geographic area affected.  
| |   o Population affected (general population, employees and residents).  
| |   o Route of exposure (in vicinity, inhalation or direct contact).  
| |   o Define cases within the exposed population.  
| |   o Contact OEEB (919.707.5900) to assist in developing a risk assessment to be shared with officials.  
| |   o Once completed, provide OEEB with the Chemically Exposed Persons Line Listing.  

| Implement Control Measures to Prevent Additional Exposures | • The environmental health specialist should consult with OEEB to discuss next steps to ensure no additional individuals are exposed.  
| | • Decide on measures to protect citizens and the surrounding communities.  
| | • Inform residents/businesses of the fluorine exposure through local emergency notification system, local TV and radio.  
| | Important points to include:  
| |   o Location of release/exposure  
| |   o Geographic area affected  
| |   o Shelter-in-place instructions  
| |   o Where to evacuate if needed  
| |   o Where to find shelter  
| |   o Where to seek medical care  
| | • For more information, please listen to your local radio station or watch your local news channel.  
| | • Work with your local incident management team and local health director to determine steps to be taken to re-enter residences/businesses.  
| |   o The local incident management team will determine when
residences/businesses are acceptable for re-entry and alert the local health director, who will then participate in the final decision.

- Your local health director will then communicate with the on-scene coordinator.
- The on-scene coordinator will then communicate to the community when they are permitted to return home or to their place of employment.

**INVESTIGATION RESULTS**

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<tr>
<th>Case Finding</th>
<th>Routine Precautions</th>
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| - During the course of the investigation, interview other exposed individuals for symptoms related to the fluorine exposure.  
  - Work with your local medical facilities, local incident management team and/or the first responders to compile the exposed people’s information.  
  - Contact local hospitals to determine total number injured, hospitalized, ED visits, and deceased.  
  - Contact N.C. DETECT, North Carolina’s state syndromic surveillance system for additional information: 919.843.2361.  
  - Advise symptomatic individuals, especially children, to see their healthcare provider immediately for evaluation. |
| - Communicate the following control measures with residents/business owners in the immediate area.  
  - Ventilate the area of the leak.  
  - Restrict access to the immediate area around the leak unless wearing protective equipment.  
  - Flush any dermal or eye exposures with large quantities of water.  
  - Stop the flow of gas if possible or wait for experts to arrive. |
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<tr>
<th>SPECIAL CONSIDERATIONS</th>
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<tr>
<td>Risk Communication</td>
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<tr>
<td>• N.C. DHHS Communications Office 919. 855.4840 is available to assist local health departments with media requests as needed.</td>
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<thead>
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<th>ADDITIONAL INFORMATION</th>
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<td>Glossary of Terms</td>
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<tr>
<td><strong>DENR</strong>: Department of Environment and Natural Resources</td>
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<td><strong>ED</strong>: Emergency Department</td>
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<tr>
<td><strong>EHS</strong>: Environmental Health Specialist</td>
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<tr>
<td><strong>EPA</strong>: Environmental Protection Agency</td>
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<tr>
<td><strong>OEEB</strong>: Occupational and Environmental Epidemiology Branch</td>
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<tr>
<td><strong>PHP&amp;R</strong>: Public Health Preparedness &amp; Response</td>
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