**TECHNICAL DECONTAMINATION TASK FORCES**

1. **INTRODUCTION**

1.1 The grouping of several companies into a task force enables an Incident Commander to quickly deploy several units to address a specific task. This will allow for a more efficient use of Department resources.

1.2 The establishment of a Technical Decontamination (Decon) Task Force provides the IC with the necessary resources to effectively address most responder, victim and equipment decontamination needs. The intent is to assign these units from an intact Battalion consisting of a SOC Support Ladder, its associated Decon Engine and the Administrative Battalion Chief.

*Note:* Task Forces assembled for Special Events can consist of units from different Task Forces.

1.3 These units are intended to perform Technical Decontamination, which is more thorough than the mass gross decontamination that may be performed by units utilizing the Aquamaster or Turbomaster fog nozzles on master streams or handlines. Technical Decontamination will involve flushing contaminants with small quantities of water, perhaps with a decon solution or soap added. This may be performed in special decon tents, which are carried on the support vehicle of the SOC Support Ladder (SSL). The SOC SL is equipped with a variety of meters to check whether decon was effective after a victim has showered. This process is known as Decon Frisking.

The units of the Task Force act as a complete team to solve several aspects of an issue.

1.4 The task force concept simplifies communications between the Incident Commander and several units assigned to a task or geographic location.

2. **DESIGNATED TECHNICAL DECON TASK FORCES**

2.1 Each Technical Decon Task Force will be identified by the Battalion from which it was called. Thus, Battalion 26 assigned to respond as part of a Technical Decon Task Force, along with Decon Engine 73, and SOC Support Ladder 42 with their support vehicle, will be designated as Technical Decon Task Force 26.
2.2 The 25 Technical Decon Task Forces are as follows:

<table>
<thead>
<tr>
<th>DIV</th>
<th>BATT</th>
<th>D-E</th>
<th>SSL</th>
<th>DIV</th>
<th>BATT</th>
<th>D-E</th>
<th>SSL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>E-7</td>
<td>TL-1</td>
<td>11</td>
<td>32</td>
<td>E-279</td>
<td>TL-131</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>E-16</td>
<td>TL-7</td>
<td>11</td>
<td>35</td>
<td>E-229</td>
<td>TL-146</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>E-74</td>
<td>L-25</td>
<td>13</td>
<td>47</td>
<td>E-265</td>
<td>TL-121</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>E-35</td>
<td>TL-14</td>
<td>13</td>
<td>50</td>
<td>E-303</td>
<td>L-126</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>E-64</td>
<td>L-47</td>
<td>13</td>
<td>54</td>
<td>E-301</td>
<td>L-150</td>
</tr>
<tr>
<td>6</td>
<td>17</td>
<td>E-46</td>
<td>L-27</td>
<td>14</td>
<td>46</td>
<td>E-287</td>
<td>L-136</td>
</tr>
<tr>
<td>6</td>
<td>26</td>
<td>E-73</td>
<td>L-42</td>
<td>14</td>
<td>49</td>
<td>E-263</td>
<td>TL-117</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>E-93</td>
<td>TL-45</td>
<td>14</td>
<td>52*</td>
<td>E-295</td>
<td>TL-144,</td>
</tr>
<tr>
<td>7</td>
<td>19</td>
<td>E-81</td>
<td>TL-46</td>
<td></td>
<td></td>
<td>E-299</td>
<td>TL-152</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>E-89</td>
<td>TL-50</td>
<td>15</td>
<td>38</td>
<td>E-280</td>
<td>L-132</td>
</tr>
<tr>
<td>8</td>
<td>21</td>
<td>E-153</td>
<td>TL-77</td>
<td>15</td>
<td>44</td>
<td>E-332</td>
<td>L-175</td>
</tr>
<tr>
<td>8</td>
<td>22</td>
<td>E-156</td>
<td>TL-79</td>
<td>15</td>
<td>58</td>
<td>E-257</td>
<td>TL-170</td>
</tr>
<tr>
<td>8</td>
<td>43</td>
<td>E-246</td>
<td>L-169</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Battalion 52 has two separate Task Forces available. Only one can be activated at a time.

**Note:** Engine Companies E-4 (Backup E-205), E-37 (Backup E-73), E-283 (Backup E-225), E-251 (Backup E-297) E-160 (Backup E-156) are all trained as Decontamination Engine Companies. Their primary responsibility is the transportation and operation of a Decontamination Shower Apparatus (DSA). They may be selected as part of a Technical Decon Task Force if no other trained engines are available.

3. TECHNICAL DECON TASK FORCE LEADER

3.1 The Battalion Chief will be designated as the Technical Decon Task Force Leader.

3.2 All communications between the Task Force and the Incident Commander will be accomplished through the Task Force Leader.

3.3 The Task Force Leader should request specific response instructions while en route to the incident. Dependent on conditions at the scene (work zones, water supply, wind conditions, etc.) the Incident Commander may direct that the Task Force respond to a specific location that is distant from operations in order to allow the Task Force to establish a Decon Corridor to which people can be directed.

3.4 Assigning an intact Battalion of units to form a Technical Decon Task Force will most likely occur after the initial units arrive on the scene and identify the need for additional resources. If any immediate actions are required such as immediate rescue or the use of emergency decontamination procedures, they most likely will be performed by the initial units prior to the arrival of the Task Force. An exception to this scenario will be when the Task Force is pre-staged at/for a special event.

3.5 Upon arrival, the Task Force Leader shall report to the FDNY Incident Commander or Operations Chief, then obtain a briefing from the Hazardous Materials Director/Group Supervisor. This briefing shall include:

- The contaminant(s) involved and hazards, if known.
- The type of decontamination procedures to employ.
- The type of CPC and Respiratory protection required in the Decon Corridor.
- The approximate number of patients, and their signs and symptoms.
The location of EMS (ALS, BLS or Haz-Tac) resources, triage & treatment sectors, and safe refuge areas (SRA).
- The over packing & disposition of waste water and disposable waste.
- Weather information and anticipated changes (temperature, rain, wind direction, etc.).
- Work zone boundaries including entry and egress points.
- A dedicated water source.

3.6 The Task Force Commander shall supervise the following actions taken by units under his/her command:
- Ensure Units are wearing the proper level of protection for the appropriate type of hazard.
- Manage control zones and access points ensuring that they are well defined.
- Ensure appropriate actions are taken to prevent the spread of contaminants.
- Maintain communications with the Haz-Mat Branch Director/Group Supervisor.
- Maintain communication with the units under their command.
- Evaluate the need for additional units for augmentation or relief of personnel.

3.7 Throughout the operation the Task Force Leader should assess the need for additional Task Forces to provide assistance or relief. The use of Operations Level Trained Units for assistance with water supply and site set-up may be required.

3.8 Large Haz-Mat incidents will require the response of several Technical Decon Task Forces, especially if numerous viable non-ambulatory patients will need to be addressed.

3.9 Use of SCBA for respiratory protection will require frequent relief of decon personnel. If the IC deems it safe to use PAPRs or APRs, longer “on air” times can be achieved. However, this increases each members work time and will require frequent assessment of personnel for signs of fatigue and signs of exposure.

3.10 Assessing the decontamination staffing needs at a Hazardous Materials incident is dependent on many factors. Technical Decon Task Force Leaders shall become familiar with Section 6 of this document, which will provide assistance with assessing decontamination staffing needs. They should also be familiar with the duties and capabilities of Decon Engine Companies and SOC Support Ladder Companies.

4. DECON ENGINE COMPANIES

4.1 PURPOSE:

4.1.1 The purpose of a Technical Decon Engine Company is:
- To augment and support the Hazardous Materials group in donning, doffing and performing technical CPC decontamination.
- To perform technical decontamination for ambulatory responders or civilians using a Decontamination Shower Apparatus.
- To perform technical decontamination for ambulatory responders or civilians using privacy shower tents.
- To perform non-ambulatory technical decontamination for incapacitated responders or civilians.
4.1.2 The training of specific engine companies to perform the above tasks will allow an Incident Commander to manage a Hazardous Material Incident more efficiently. Other Haz-Mat resources at the incident can be assigned the remaining tasks according to their training.

4.2 STAFFING OF DECON ENGINE COMPANIES:

4.2.1 To operate as a Decon Engine, the company shall be staffed with a minimum of one trained officer or trained acting officer, and at least three trained firefighters.

4.3 TRAINING:

4.3.1 All FDNY firefighters and officers have received 24 hours of Operations level Hazardous Materials training. Decon Engine members have received 24 hours of additional training specific to their intended decontamination tasks. This training includes:

- Donning, doffing and decontamination of all levels of CPC.
- Use and limitations of different levels of respiratory protection, including SCBAS, APRS and PAPRS.
- Processing ambulatory patients through a Decon Shower Apparatus.
- Processing ambulatory patients through a Privacy Shower Tent.
- Decontamination of non-ambulatory patients using a roller system.

4.3.2 Decon Engine Personnel are not Haz-Mat Technicians and will not perform mitigation.

4.3.3 Decon Engine Personnel are not intended to be used for rescue purposes.

4.4 RESPONSE AND OPERATIONS:

4.4.1 Technical Decon Task Forces shall only respond to special calls. Incident Commanders shall assess the potential need for Technical Decon Task Forces and notify the dispatcher to special call the number of Task Forces required, guided by provisions in Section 6. Dispatchers shall assign the nearest available Task Forces to provide the requested number of Task Forces. These shall be assigned as intact Task Forces rather than individual units. (Note: Except Special Events)

4.4.2 All FDNY Engine Companies have the ability to provide Emergency Gross Decon procedures for responders and civilians. A Decon Engine company assigned on the initial alarm will function as a normal Engine Company, as per Fire Tactics and Procedures, ERP, Hazardous Materials.

4.4.3 If the Incident Commander finds it feasible, a Decon Engine Company assigned on the initial alarm, can be relieved by a special called Engine company in order to allow the Decon Engine Company to perform technical decontamination tasks. This would require that the necessary resources and equipment are at the scene, specifically a SOC Support Ladder with its support vehicle. This scenario would be feasible if the incident did not require emergency decontamination procedures upon arrival and/or extensive scene control procedures. An example of the above scenario would be of an industrial Haz-Mat incident with no reported victims.
4.4.4 A Decon Engine Company assigned to an alarm as part of a Technical Decon Task Force will respond with its associated SOC Support Ladder Company (with support vehicle) and its associated Battalion.

4.4.5 All Technical Decontamination procedures will be performed in a well-defined Decontamination Corridor inside the Warm Zone. Initially this corridor will be free of contaminants. Decon Engine Personnel can establish this zone and set-up the necessary equipment wearing their work duty uniform or bunker gear. Once responders or patients present at the edge of the decon corridor, the personnel staffing the decon must be in appropriate CPC for the incident encountered.

4.4.6 Decon Engine personnel are trained to perform several different technical decontamination procedures. Depending on the type of incident, several of these procedures may be required at a single incident. Since decontamination operations are both labor and time intensive, one Decon Engine Company can only perform one type of procedure at an incident. Additional resources will have to be special called to augment the Decon Engine Company when an incident requires several different technical decontamination procedures.

4.4.7 All Fire Department personnel that have been trained to wear CPC are taught to perform a technical CPC Decon. Technical CPC decon is a procedure utilized to reduce the amount of contaminants on each responders CPC to levels low enough to allow them to remove their CPC, thereby limiting cross contamination. A Decon Engine Company can be used to set-up and staff a Technical CPC Decon; they can be augmented by CPC trained personnel at the incident if required. Any non-trained members working at an incident can be used to establish a water supply and assist in the site set-up.

4.4.8 Decon Engine personnel are trained to perform ambulatory decon of patients using a Privacy Shower Tent. They are trained to set-up the tent and process the patients. The tent is ideal for a small number of patients requiring decon prior to being transported by EMS to a hospital. The Privacy Shower Tent is carried on the SOC Support Ladder’s support vehicle.

4.4.9 Decon Engine personnel are trained to perform ambulatory decon of patients using a Decon Shower Apparatus. All site set-up can be established in work duty uniforms before patients proceed to decontamination. Once patients proceed to the Decon Shower Apparatus, it must be staffed by Decon Engine personnel wearing the proper level of protection (usually Level B or Level C).
4.4.10 Decon Engine personnel are trained to perform non-ambulatory decon for patients who are incapacitated and must be decontaminated prior to transport by EMS. If time allows, the Privacy Shower Tent shall be used for privacy and wastewater containment.

4.4.11 The Decon Engine Company Officer must receive the following information from the Technical Decon Task Force Leader in order to properly supervise his/her personnel in the decon corridor:

- The level of CPC and respiratory requirements for his personnel.
- The type of decontamination procedure to employ.
- What unit is establishing the water source. This may be a different engine company on the scene.
- The approximate number of responders or patients requiring decontamination, and their signs and symptoms.
- The contaminant(s) involved, if known.
- The location of EMS and whether a Haz Tac Ambulance is on-scene.
- The location of entry and egress points, and if work zone boundaries have been defined.
- Weather information.
- The over packing & disposition of wastewater and disposable waste.

4.4.12 The Decon Engine Company Officer will use the above information to assist in determining the Decon Corridor staffing requirements. The Decon Engine Company Officer should consult with the Tech Decon Task Force Leader when additional decon engine personnel are required for initial operations or relief. The Task Force Leader will then request augmentation via the chain of command.
4.5 EQUIPMENT

4.5.1 All of the equipment that is necessary to establish and perform the above decontamination procedures is assigned to SOC Support Ladder Companies and carried on its support vehicle. The list of all equipment carried on the support vehicle is found in Fire Tactics and Procedures, Haz-Mat 10, Addendum 1.

4.5.2 The Decon Engine Company Officer shall be responsible for ensuring that the members of their unit are trained in the location, operation and maintenance of all equipment used for decontamination purposes on the support vehicle. The Decon Engine shall be responsible for inspecting and reporting the serviceability of the following equipment to the SOC Support Ladder Company Officer:

- Level B hooded CPC (12)
- Disposable Tyvek Coveralls
- Chemical Resistant Boots (12)
- Butyl Gloves (12)
- PAPRS and accessories (12)
- Chem Tape
- Nitrile (CFRD) Gloves
- Decon Supplies
- Plastic Buckets
- Brushes
- Decon Solutions (5 Gallons of Soap/Case of Bleach)
- Garden Hose
- Spray Nozzles with wand heads
- Spray Wands with wand heads
- 2½” Hydrant Adapters
- Recovery Drums
- Sponges
- Plastic Bags
- Doff’it Kits
- Medical Shears
- Seatbelt Cutters
- Privacy Shower Tent and Accessories

5. SOC SUPPORT LADDER COMPANIES

5.1 Additional information on SOC Support Ladder Companies can be found in Fire Tactics and Procedures, Haz-Mat 10 and Addendum 1.
6. **ASSESSING AN INCIDENT’S DECONTAMINATION STAFFING NEEDS**

6.1 Assessing the decontamination staffing needs at a Hazardous Materials incident is dependent on the following factors:

- If emergency decontamination procedures need to be employed.
- The number of ambulatory and non-ambulatory patients that require decontamination.
- The number of entry personnel that require decontamination.
- The intervals at which the entry teams make entry into the hot zone.
- The contaminant involved and the extent to which the entry team will be contaminated. For example, an entry team over packing an intact 55-gallon drum may only require a boot and glove wash. Compare that to an entry that requires the controlling of a leak under pressure that grossly contaminates a members CPC.
- The type of respiratory equipment worn by the decon personnel. Members wearing SCBA have shorter work times as compared to members wearing PAPRs or APRs.

6.2 At many Haz-Mat incidents, emergency decontamination of responders and/or patients will not be required. When there are no reported patients or missing persons, a no-rush approach should be taken. A no-rush approach allows for a proper size up, establishment of proper work zones, and the designation of entry teams, back-up teams, and other units for various support functions dictated by the event. A water supply and fog line must be established for emergency decontamination procedures, should the need arise. If entry into a contaminated area is to be made in CPC, a formal CPC decon must also be established prior to the first entry team entering the Hot Zone. Under these circumstances, one Decon Engine should be able to staff the decon corridor and provide CPC decon without complications.

6.3 At a Haz-Mat incident that involves patients requiring decontamination, the staffing of the decontamination corridor may have to be increased. If emergency gross decontamination of patients is required, (typically for patients needing immediate medical care) initial units should perform it upon arrival. Patients requiring additional technical decontamination can be processed through a Privacy Shower Tent or a Decon Shower Apparatus. Depending on the nature of the contaminant and the number of patients, one Decon Engine called as a resource within a Technical Decon Task Force should be able to decon the ambulatory patients. However, if a Technical Decon is also required for responders wearing CPC, an additional unit will be needed to perform this task. Both the ambulatory patient decon and the CPC decon can exist in close proximity, but must be well defined as to separate the two types of decon procedures from each other.

Patients must not be processed through a CPC decon and responders wearing CPC should not be processed through an ambulatory patient decon. In the scenario presented above, the SOC Support Ladder called as a resource within a Technical Decon Task Force, can be designated to staff the Technical CPC Decon. The Battalion Chief that responded as the Tech Decon Task Force leader will supervise both technical decontamination stations.
6.4 The scenario presented in 6.3 can be followed for non-ambulatory patients encountered at a Haz-Mat incident. Emergency gross decontamination procedures are not always required for non-ambulatory patients. For example, an asbestos abatement worker who is grossly contaminated with product that falls and suffers a broken leg does not require an immediate wash down and clothing removal. Privacy and proper decontamination can be established and performed in a controlled manner. The abatement company may have a decon facility on site for their workers but it may not be able to handle a non-ambulatory patient. In this circumstance, a privacy shower tent can be erected and staffed by a Decon Engine Company. This scenario should not overwhelm the Decon Engine’s staffing.

A Technical CPC Decon should also be established for responders wearing CPC, and another unit will be needed to establish and perform this task. The SOC Support Ladder can be designated to staff the Technical CPC Decon.

6.5 The asbestos scenario described above can be further complicated by having unwary and inappropriately protected responders entering the site of the asbestos abatement. The nature of the product does not require extreme actions to be taken. In this scenario, technical decon will be required for the following: the non-ambulatory patient, the inappropriately protected responders and the responders wearing appropriate CPC. A separate decon corridor should be established for each type of decon required (CPC, ambulatory, non-ambulatory). This would require an additional Decon Engine to process the inappropriately protected ambulatory responders through a second Privacy Shower Tent. All of these decon procedures can take place in close proximity, but must have well-defined boundaries and properly protected decon personnel directing those that are contaminated to the proper decon station.

Another solution might be to isolate the contaminated responders and have them stand by in a safe refuge area. They would later be processed through the Privacy Shower Tent after it was used for the non-ambulatory patient. This is feasible because the nature of the contaminant is not an immediate threat to the life and health of the contaminated responders and the respiratory protection required in the decon corridor can be Level C (APR or PAPR) allowing for a longer work time. This scenario would require one Decon Engine to staff and process both the ambulatory contaminated responders and the non-ambulatory patient. A separate unit (SOC Support Ladder) would be required to staff the Technical CPC Decon Corridor due to the different equipment and procedures required.

6.6 The following is an example of a serious scenario given to assist Incident Commanders, Decon Engine Company Officers and Technical Decon Task Force Leaders in assessing decontamination staffing needs:

A chemical attack in a subway that produces numerous ambulatory and non-ambulatory patients. This will be overwhelming to responders, but operational difficulties can be minimized with proper planning and prior training. The initial units on the scene would be required to employ emergency decon on patients with severe or life threatening exposures to increase their chances of survival. Other obvious scene control tasks should be implemented as per the Fire Tactics and Procedures, ERP, Hazardous Materials. The forming of Safe Refuge Areas and Casualty Collection Points will provide isolation of contaminated patients until technical decontamination corridors are established.

9
Ambulatory decon procedures using a Privacy Shower Tent can be established by one Technical Decon Task Force; relief may be required depending on the number of patients. Several of these corridors may be required depending on the geography of the incident (the location of subway exits and/or separate subway stations). As resources become available, non-ambulatory decon stations can be staffed. The optimal staffing of a non-ambulatory decon station for numerous patients requires two Technical Decon Task Forces. Responder decon can be initially satisfied with an emergency fog line; however, a Technical CPC Decon must be established as soon as resources become available to properly limit cross contamination of our responders. This scenario is extreme. Decontamination is both labor and time intensive, but in this scenario, decontamination will be life saving.

7. CONCLUSION

7.1 Routine Haz-Mat responses with or without patients can be handled with one Technical Decon Task Force. In certain circumstances, a second Task Force may be required for augmentation or relief. The final scenario presented is unprecedented and will test the best-equipped and trained department, requiring an unusual commitment of resources. At least four Decon Task Forces should be called immediately for such a situation, one to perform ambulatory patient decon, one to perform responder decon, and two to perform non-ambulatory patient decon. Additional CPC units or SOC Support Ladders will be required to perform patient care including antidote administration, and patient removal to decon areas. Still more companies will be required to assist EMS with treatment and transportation of patients after they have undergone decontamination. These units do not have to use CPC, since the patients have been decontaminated.