Subject: Foam Operations	Personnel: ALL	Number: 3.9
Effective Date: 2-January-1999	Updated: 23-June-2009	

3.9.1. Purpose

The following procedures outline Aqueous Film Forming Foam (AFFF) operations.

3.9.2. Foam shall also be marked with the purchase month and year. Foam expires five years from its purchase date. Any expired foam may only be used for training purposes.

3.9.3. Foam will be used at the Incident Commander's discretion.

3.9.4. Foam operations shall be conducted as follows:

3.9.4.1. **Start Upwind** and insure that foam can be applied. (Foam is ineffective in high wind or rain.)

3.9.4.2. **Identify the hazard** (by the placard and D.O.T. Book and whether the hazard is a hydrocarbon or a polar solvent.)

3.9.4.3. Determine the **area** of the spill or fire in square feet.

A.) Circle = $\pi r2 = 3.14$ **x** (half the diameter **x** half the diameter)

B.) Square or rectangle = length **x** width

3.9.4.4. Determine **gallons per minute (GPM)**

A.) Hydrocarbon = area **x** .1

B.) Polar Solvent = area **x** .2

3.9.4.5. Determine **Foam** (Finished Product [**Water/Concentrate Mix]) Requirement**

GPM **x** 15 (15 minute initial application)

3.9.4.6. Determine amount (gallons) of **foam concentrate** needed

Foam Requirement (Water/Concentrate Mix) needed **x**

A.) .03 for hydrocarbons

B.) .06 for polar solvents

3.9.4.7. Foam concentrate needed ÷ 5 = **Number of 5 gallon buckets of foam needed.**

3.9.4.8. **Bring all equipment/foam to the scene** before beginning operation

3.9.4.9. **Apply foam:**

Flow foam on hydrocarbons at 3%, flow foam on polar solvents at 6%

There must be a visible blanket over the entire spill surface to insure vapor suppression.

3.9.4.10. **Protect the foam blanket.**

Insure that blanket is not walked through, driven through or otherwise broken.

Insure that your hose lines are not part of the spill.

Protect the foam blanket at all costs.

3.9.5. Before foam is applied, all of the equipment shall be brought to the scene. For example, if you have 65 gallons of foam and you need 100 gallons, foam will not be applied until the additional foam is on scene.

3.9.6. While applying foam, the entire surface area of the spill or fire will be covered or extinguished. Hose lines will be placed at points where they do not obstruct the foam blankets. Foam will not be applied in high wind or rain.