Chapter 19. Commodity Flow Study

Commodity flow studies are conducted to provide detailed information about the type, quantity, volume, and spatial distribution of hazardous materials traveling through your counties via highways and rail. (Note: Consideration of transportation routes of extremely hazardous substances is a required element of the local emergency response plan.) As discussed earlier in this document, there are other chemicals in commerce that also pose hazards to the community; therefore, LEPCs and TEPCs should also consider transportation routes of these chemicals in the emergency response plan. This information is necessary for detailed emergency planning activities by your county's emergency response agencies.

The first step is determining the routes to be studied. This can be a major highway through the county or city, or a heavily traveled road through high-population areas. Railroad studies are also useful, since they often run through heavily populated areas and city centers. The second step is developing a survey schedule that covers different days of the week, different times of day, and a long enough period of time to ensure peak and off-peak traffic are surveyed. The third step is to determine what methods you will use to collect the information. You can have teams stationed in safe locations along the routes using binoculars for placard surveys. You can also use vehicle and train manifest surveys. The fourth step is conducting the survey and compiling the information showing types of materials and the quantities, frequencies and locations of where they are transported. A vulnerability study could also be done along your routes to determine populations at risk.

You may request that facilities in your community, trade associations or university students assist you in conducting a commodity flow study.


Sample commodity flow studies from various states and cities are posted on EPA’s website. See “Resource” section of this document.