TITLE III PLAN GUIDANCE

USE THE BASIC FORMAT FOR A TAB Q-7 OR USE A COMMISSION APPROVED EQUIVALENT FOR THE PLAN.

This guidance supersedes all previous instructions for development of Title III plans. It provides instructions for completion of each section of the plan. It clarifies, but does not change, the previously issued Upgrade Criteria. All NEW or REVISED tabs/plans must meet these improved criteria. **Modifications** have been made to the **SPECIAL FACILITIES** section beginning in the last paragraph on page 4 and continuing through the first paragraph on page 5. The remainder of the guidance is unchanged.

The KyERC, at the December 5, 1996 meeting, clarified criteria for identifying the vulnerable zone for a fixed chemical facility. **All vulnerable zones will be determined by using guidance from Technical Guidance for Hazards Analysis (Green Book), CAMEO, or other appropriate modeling systems. The U. S. Department of Transportation Emergency Response Guidebook will not be used to determine the radius of the vulnerable zone.**

NOTE: If other sections of the EOP are referenced, ensure the sections are adequate and current.

To ensure uniformity of the Tabs and that they conform to the remainder of the EOP, the format for the Tabs should be as follows. Use the Arial Regular 12 point font. Margins should be 1 inch top margin, 1 inch left margin, 1 inch right margin, and .5 inch (one-half inch) bottom margin. The page number should be centered at the bottom of the page .5 inch (one-half inch) from the bottom of the page and .5 inch (one-half inch) below the last line of the text.. The county number, change number, and year ("reference numbers") should be on the same line as the page number and should end at the right margin.

FACILITY NAME AND CONTACTS

FACILITY NAME

List the complete Facility name, street address (List the physical address- not the mailing address, if it is different), and city.

FACILITY EMERGENCY RESPONSE COORDINATOR

List the name and title of the primary Facility Emergency Response Coordinator (FERC) and at least one alternate FERC.

COMMUNICATIONS

List all appropriate communication numbers in the communications section. Additional communications resources such as Fax numbers and cellular phone numbers may be included.

HAZARDOUS CHEMICALS

NAME

List the **chemical** name. Listing the trade or common name of the chemical is optional. Many farm stores may wish to list the common names for the chemicals in addition to their chemical names.

UN ID# and CAS#

UN ID #

The United Nations Identification Number (UN ID #) is used for identification of chemicals during transportation. Most emergency response personnel are familiar with the system. Therefore, the UN ID #s are recommended for inclusion in the plans. A familiar reference book for the UN ID #s is the current edition of the Emergency Response Guidebook.

CAS #

The Chemical Abstract Service (CAS) assigns numbers which are more definitive than the UN ID #s to chemicals. The CAS # MUST be included in the plan. These numbers are listed in Material Safety Data Sheets (MSDS), various publications (such as the List of Lists) which list hazardous chemicals, and in databases such as Computer Assisted Management of Emergency Operations (CAMEO).

FORM

List the physical form in which the chemical(s) is/are normally used or stored (e.g., solid, liquid or gas).

PACKAGED CONTAINER

List size and type of container (e.g., 1# plastic can, 50# paper bag, 100# steel cylinder, 2.5 gal plastic jug, 80,000 gal bulk tank, etc.). This description will assist responders with identification of hazardous chemicals in the event they are called to the scene.

MAXIMUM QUANTITY

List the maximum quantity for each chemical at the facility at any one time. Maximum quantity must be expressed in pounds in order to facilitate response efforts on-scene. Charts which responders use on-scene are expressed in pounds. To avoid converting from gallons or other units during hectic response operations, all units must be converted to pounds during the planning process.

HEALTH RISK

A variety of responses are acceptable if they accurately convey the health hazard or risk. The NFPA 704 Marking System for health hazard where 0 indicates a minimum hazard and 4 indicates a maximum hazard may be used. Terms such as asphyxiant, oxidizer, poisonous, infectious, corrosive, etc. may be used. Acute or chronic WILL NOT be acceptable unless they are used in conjunction with other descriptive terms. A summary of the health hazard from the Material Safety Data Sheet (MSDS), current edition of the Emergency Response Guidebook, CAMEO, or other authorative sources must be included in addition to any of the previously listed systems for indicating the health risk/hazard. In order to conserve space, an asterisk (*) may be inserted in the health risk column and at the left margin on the next line. This asterisk is followed by a summary of the health risk/hazard written across the entire page. Chemicals with the same health risk may be grouped together with the appropriate health risk summary written below them. Successive groups of chemicals may follow.

SKETCH OF FACILITY AND STORAGE AREAS

The purpose of this section is to help responders who are unfamiliar with the facility locate the hazardous chemicals. A legible drawing of the facility and the entrance road must be provided. An engineering drawing may be used if it clearly depicts the required information. However, engineering drawings usually do not provide the required clarity. A simple hand-drawn sketch is usually best. The sketch does not have to be drawn to scale. The sketch MUST meet four criteria: (1) It must be legible. (2) It must contain a **north** directional arrow. (3) It must show the location of each EHS (If the facility desires to keep the location of the chemical secret for security reasons, this information may be deleted from the sketch if an explanation is provided). (4) It must show the access road (provide the name of the road).

FACILITY RESPONSE POINT (RP)

The Facility Response Point is the place where the FERC will meet off-site response personnel. The RP may be at a designated point at the facility or at another location if the situation makes the first choice impractical. **Note:** Include the following statement in this section. "The facility representative who meets

off-site response personnel at the RP should have a copy of the facility Title III plan, the facility Contingency Plan (if required), appropriate MSDSs, and should be prepared to brief the responders on the current situation."

For more information, see Appendix Q-7, III, third paragraph.

STAGING AREA

The staging area is the location where support vehicles, equipment, and personnel will report and await assignment by local organizations. Staging areas should generally be located beyond the potential vulnerable zone or provisions should be made for selecting an alternate site. In some instances, they may be co-located with a Special Facility if suitable alternate locations are designated to be used if the wind is moving toward the primary site. Do not select the facility parking lot as the staging area because it will generally be too close to the point of release. The staging area should be within a three to five minute drive of the facility. This will permit motor vehicles to be staged at a safe distance from the facility.

TRANSPORTATION ROUTES

The primary transportation routes and modes of transportation must be described. List each primary route the chemicals will travel from the time they enter the county until they reach the facility. If chemicals are manufactured by the facility and shipped to other locations, list each primary route and mode of transportation. List the primary supplier and telephone number for the chemicals. List hazardous points along the routes (See Appendix Q-7, IV, J). Facilities which receive numerous chemicals from many sources may include a statement that the inclusion of each chemical is impractical and that a list of suppliers is maintained and may be inspected at the facility. The frequency of shipments is an optional item.

SPECIAL FACILITIES

Affected Special Facilities shall be notified and assistance provided because of their proximity to the incident or the effects the incident will have on them. No hard-and-fast rule for selection of Special Facilities can be given. However, Appendix Q-7, IV, K provides general guidance for designating Special Facilities.

The first step is to determine the area which may be affected by the release. The plan must state the radius of the vulnerable zone and how the radius was selected. For example, **The 2.9 miles radius of the vulnerable zone for a 150# cylinder of chlorine was selected from Technical Guidance for Hazards Analysis (Green Book)** . If the quantity of spilled chemical is known, the RADIUS of the affected area may be determined by using CAMEO, other

appropriate U. S. Environmental Protection Agency approved modeling systems, Technical Guidance For Hazards Analysis , or other technical publications.

If CAMEO is used to calculate the radius of the maximum vulnerable zone for screening purposes, use F atmospheric stability, a wind speed of 3.4 miles per hour, and the appropriate rural or urban topography (See Technical Guidance for Hazards Analysis, Page 3-9, Step 3).

If Technical Guidance for Hazards Analysis is used to calculate the radius of the maximum vulnerable zone for screening purposes, use F atmospheric stability, a wind speed of 3.4 miles per hour, and the appropriate rural or urban topography (See Technical Guidance for Hazards Analysis, Page 3-9, Step 3).

If the LOC is halfway between the values given in Exhibit 3-1 or Exhibit 3-2, use the smaller value which is to the left of the specified LOC. If the LOC is below the midpoint, use the smaller LOC which is to the left of the specified LOC. If the LOC is greater than the midpoint, use the LOC which is to the right of the specified LOC.

A common sense approach must be taken when estimating the quantity of chemical which may be released. The release will not be based on the absolute worst case, but on the worst credible release. For example, if a facility has several tanks filled with a chemical, but the tanks are not interconnected, the worst credible release should be based on the largest single tank. However, if two or more of the tanks are interconnected in such a fashion that a rupture in any of the tanks would result in the release of the chemical from all interconnected tanks, the worst credible release should be based on the release of all the chemicals in the interconnected tanks.

If chemicals are stored on pallets in a farm store, a common sense approach must be used to determine the worst credible release. If a fork lift or truck, or something else, could cause an accident in which all or part of the chemicals could be spilled, the worst credible release must be used. It is not logical to assume only one container in a large palletized section would be spilled.

Note: Distances are based upon the airborne release of gasses or vaporized liquids or solids from the worst credible accident. In the event of fire, all chemicals in a facility could be released, resulting in hazards downwind at greater distances than for accidents involving only airborne releases. The materials involved in an accident may, by themselves, be non-hazardous. However, a combination of several materials or the involvement of a single material in a fire, may produce serious health, fire or explosion hazards. In the event of fire, keep unprotected people out of the projected plume.

When the radius of the vulnerable zone has been determined, select a city or county map with a suitable scale and locate the facility on the map. Using the

radius of the vulnerable zone which is measured on the map scale, draw a circle depicting the vulnerable zone. Divide the circle which is centered upon the facility into four quadrants by drawing lines on the north-south and the east-west axes. Beginning at the north axis and moving in a clockwise direction, designate the quadrants A through D.

The next step is to estimate the population of each quadrant and to make a list of each Special Facility in each quadrant. **Note:** The TOTAL population for each quadrant is composed of the resident population PLUS the population of the special facilities within the quadrant PLUS business and transient populations (e.g., stores, offices, small factories, airports, recreational areas, major transportation routes, etc.). The population for each special facility may be listed, but a listing of the population for each special facility is not required. If the population increases significantly because of ball games, concerts, or special events, this should be noted and the normal population listed in addition to the peak population. Include the population of the fixed facility in the total population of each quadrant because facility personnel must be evacuated or sheltered in place each time protective action is required.

The Special Facilities are located on the maps, if feasible, by indicating the location of each Special Facility by designating them with consecutive numbers for each quadrant, (e.g. Quadrant A--1, 2, 3; Quadrant B--1, 2; Quadrant C--1, 2; Quadrant D--1, 2, 3...). Special Facilities are usually more easily located on a city map than on a county map. However, the entire vulnerable zone usually can not be shown on the city map. For these reasons, both city and county maps are usually used. If a Special Facility is shown on one map, it does not have to shown on the other map.

SAMPLE: The section may begin in this fashion.

The 2.9 mile radius of the vulnerable zone for chlorine was selected from the Technical Guidance for Hazards Analysis. Only one 150 lb. cylinder is used at any one time. Therefore, a release rate of 15 pounds per minute (#/min) was used to calculate the vulnerable zone.

Quadrant A: The total population of quadrant A is 7500.

1. Mildred Smith Middle School	606-276-1234
2. City Hospital	606-276-3761
3. Morningside Nursing Home (175)	606-276-9805

Quadrant B: The total population of quadrant B is 895

1. Coca Cola Bottling Plant (210)	606-276-9955

2. Green Truck Plant 606-276-5555

Quadrant C: The total population of quadrant C is 780

No Special Facilities

Quadrant D: The total population of quadrant D is 350

No Special Facilities

PROTECTIVE ACTIONS

Public Protective Actions should consider both **In-Place Sheltering** and **Evacuation**. If both options are not to be considered, explain why only one will be chosen. If in-place sheltering will be considered as an option for protecting the public, statements similar to the following should be included in this section of the plan**:** "The average rate for air change per hour (acph) in "average" American homes and office-type buildings under average conditions is 0.8 to 1.0 acph with doors and windows closed and ventilation systems closed down. "Leaky" buildings or average buildings exposed to severe weather conditions, with air change rates of 1.5 to 2.5 acph, may experience 45 to 65 percent of outdoor concentrations in 30 minutes. If a structure is exposed to a hazardous concentration for an extended period of time, the chemical concentration inside the structure may approach the outside concentration. Therefore, in-place sheltering is generally applicable for releases of short duration (30 min or less) and may have limited application for releases over a period of time in excess of one hour."

If evacuation is an option, briefly describe the situation or conditions which would prompt officials to order an evacuation. Give general procedures and routes which may be used for evacuations. If only one road is available for evacuation, this should be noted. If several evacuation routes are available, provide general instructions on how the routes will be selected at the time of the incident. Planners may reference Annex EE, Evacuation, for additional details on how evacuations will be carried out. If evacuation procedures are complex and generally different than the procedures in Annex EE, an appendix may be added to Annex EE. **Note:** If other sections of the EOP are referenced, ensure the sections are adequate and current.

Describe all systems or procedures which will be used to warn the public and identify the agencies which will perform these tasks.

If shelters can be identified, list them. If shelters must be selected at the time of the incident, Annex F may be referenced.

Note: If other sections of the plan are referenced, ensure the sections are adequate and current.

Entry into evacuated areas will be restricted until officials determine it is permissible for authorized personnel to enter. Identify officials who will authorize reentry of an evacuated area, provide general criteria for determining when reentry can begin, and provide general procedures for reentry.

Local medical personnel should be aware of the chemicals used in the community. Provide a statement of the capability of local or area medical facilities to decontaminate and care for patients exposed to chemicals. If local facilities are unable to care for patients, discuss provisions for providing medical care to injured persons and list medical facilities to which patients will be taken. If medical facilities or other special facilities are forced to evacuate, discuss provisions for relocating medical personnel and patients.

RESPONSE LEVELS

Designation of Response Levels is optional for each community. Response Levels may be used to indicate the complexity of the incident, the number of responding organizations, the size of the affected area, and the severity of the hazard. Response Levels are classified as Level I, Level II, or Level III.

Level I-Emergency Condition Description

An incident or threat of a release which can be controlled by the first response agencies and does not require evacuation of other than the involved structure or the immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property. Contact Local response units: Fire Dept, Emergency Medical Services, Police Dept, Partial EOC Staff, Public Information Officer, and CHEMTREC and the National Response Center, if appropriate.

Level II-Limited Emergency Condition Description

An incident involving a greater hazard or larger area which poses a potential threat to life or property and which may require a limited evacuation of the surrounding area. Contact All agencies in Level I plus: HAZMAT Teams, EOC Staff, Public Works Dept, Health Dept, Red Cross, County DES/EMA, State Police, and Public Utilities.

Level III-Full Emergency Condition Description

An incident involving a severe hazard or a large area which poses an extreme threat to life and property and will probably require a large scale evacuation; or

an incident requiring the expertise or resources of county, state, federal, or private agencies/organizations. Contact All Level I and Level II agencies plus the following, as needed: Mutual Aid, Fire, Police, Emergency Medical Agencies, state DES, NREPC, HSC, FCC, USEPA, USCG, ATSDR, FEMA, and OSC/RRT.

EMERGENCY EQUIPMENT ON HAND/TRAINING/EXERCISING

These three items must be discussed from the perspective of the facility and the community. Each of the three above items may be discussed from the perspective of the facility and the community in the same paragraph or they may be separated into different paragraphs. Many planners prefer to discuss all three items from the facility's perspective and then repeat the discussions from the community's standpoint.

EMERGENCY EQUIPMENT ON HAND

FACILITY EQUIPMENT

Each facility should have some equipment which could be used in the event of a release. Equipment may range from detection devices (monitors) and simple items such as brooms, shovels and trash cans to sophisticated protective clothing and equipment. Any type of alarm which may signal a release should be listed. If the location, such as the chlorine feed room, where the chemical is stored or used can be closed off to retard the escape of the chemical in the event of a release, provide a description of the area and steps to be taken to retard the escape of the chemical. List any respirators or SCBAs on-site or available to on-site personnel. If the facility has EMS units or a fire department, they should be listed.

COMMUNITY EQUIPMENT

Equipment available to any of the community emergency response personnel may be listed or the Emergency Resource Inventory List (ERIL) may be referenced. **Note:** If other sections of the plan are referenced, ensure they are adequate and current.

TRAINING

TRAINING OF FACILITY PERSONNEL

Describe training programs in which facility personnel participate. Describe the training employees receive when they are initially assigned to a position. Give frequency and a brief description of refresher training programs. Discuss methods and agencies used to provide the basic training and refresher courses which keep employee certifications in effect. Local training programs should include response procedures for releases from facilities in the community.

TRAINING OF COMMUNITY RESPONSE PERSONNEL

Response agencies are subject to Kentucky Department of Labor Cabinet training requirements. Each state/local governmental agency or private response agency is responsible for assuring emergency response personnel receive adequate/appropriate hazardous materials training. Appropriate organizations or governments should maintain records of personnel completing training courses and refresher courses. List the level of training for response personnel (e.g., firefighters are trained through Kentucky Community and Technical College System courses to First Responder Operational level). Indicate any specialized or advanced training personnel have received and the source of the training.

EXERCISES

FACILITY EXERCISE PROGRAM

Large manufacturing facilities frequently establish extensive drill/exercise programs. However, medium to small facilities usually do not have a drill or exercise program. If the facility has an exercise program, from monthly or quarterly safety meetings to less frequent exercises, list the frequency, type of activity, participants, and other information which helps to explain the exercise program. If they do not have an exercise program, include a statement that the facility will participate in hazardous materials exercises when requested by local officials. Of course, the statement must be endorsed by the facility.

COMMUNITY EXERCISE PROGRAM

The community is encouraged to conduct hazardous materials exercises on a regular basis. However, the community must conduct exercises in compliance with State guidance if the community receives state or federal financial assistance. If the community does not have a different schedule in effect, it must at least meet the following schedule: Exercises must be conducted on a four-year cycle. Functional exercises may be conducted during three of the four years, but a full-scale exercise must be conducted during one year of the cycle. The community may choose the type of exercise and the exercise scenario. Local officials are encouraged to include hazardous materials problems in the exercises.

SPILL CONTAINMENT/CLEAN-UP/DISPOSAL

SPILL CONTAINMENT

Spill containment is critical and is usually within the control of the facility, unless a release occurs during transportation. Describe any procedures/systems in place to minimize the loss of chemicals during an unplanned release (e.g., dikes which will contain all of the chemical likely to be released have been erected around the storage tanks, or drainage ditches will divert the chemicals to a storage lagoon until they can be recovered, or the chemical feed room can be closed off to retard the escape of the chemical, or absorbents are available for application to liquid spills to prevent the chemical from getting into sewer systems). If the chemicals vaporize immediately when released and containment is not possible, please note. External response organizations and clean-up contractors have limited capabilities to contain chemicals because the chemicals will generally have spread or vaporized before off-site agencies or contractors can arrive on site.

CLEAN-UP

Provide general procedures for clean-up of released chemicals in order for response personnel (facility or external) to have ready guidance for coping with the release and to give plan evaluators an indication that personnel understand proper procedures for clean-up. Since rapid clean-up is not as critical as containment, external agencies may be sought for advice/guidance, or a contractor may be employed to clean-up the chemicals. Simple clean-up procedures such as scooping the spilled granulated or solid material into a plastic bag which is contained inside a steel recovery drum and held for proper recycling or disposal may be sufficient.

DISPOSAL

Explain how recovered materials will be disposed of by response personnel or by a clean-up contractor. Do not state they will be disposed of in accordance with NREPC or USEPA regulations unless details of the regulations are provided. If the facility has procedures in place for disposal, describe them. If procedures for disposal are not developed, the facility and local emergency response personnel are required to develop procedures which must be approved by Natural Resources and Environmental Protection Cabinet personnel prior to implementation of the plan. The NREPC regulates permitted facilities which may accept hazardous materials.

Note: Facilities are encouraged to list clean-up contractors who may be employed to assist with containment (if applicable), clean-up, and disposal operations in the event of a release at their facility.

EMERGENCY NOTIFICATION

The Tab Q-7 format contains a section which lists many emergency response agencies. This is provided as a guide and lists the minimum number of agencies which are usually involved in a hazardous materials release. **Note:** The Haz-mat Coord. listed in the Emergency Notification section of the Tab is the COMMUNITY Hazardous Materials Coordinator. Add any appropriate telephone numbers for your jurisdiction. If the vulnerable zone extends into an adjacent county or state, notification numbers for those jurisdictions must be included.