

E-Plan Best Practices

We began a new feature in the November, 2006 [E-Plan Newsletter](#) that we call “E-Plan Best Practices”. This feature includes the good experiences from First Responders all over the U.S. in using E-Plan for emergency planning and response, pre-planning and training.

If you have an “E-Plan Best Practice” that you would like to share with others, please send us your “E-Plan Best Practice” to UT Dallas’s CyberSecurity and Emergency Preparedness Institute.

By e-mail: eplan@utdallas.edu

By phone: 972-883-2870

By fax: 972-883-4441

By mail: The University of Texas at Dallas
Attn: E-Plan WT-11
800 W. Campbell Road
Richardson, TX 75080



The Use of E-Plan Use for Fire Inspections

Fire Department fire inspectors and fire marshals are downloading and printing a specific facility's Tier II report and/or Risk Management Plan (RMP) from E-Plan web site at <https://erplan.net/> prior to visiting the facility for an on-site inspection.

With the Tier II or RMP report in hand, the Fire Inspector can check the facility and query facility management about the type, quantities and locations of hazardous materials.

Any changes in the kind of hazardous materials, storage locations and quantities become readily apparent to the Inspector. He/she can note any changes and ask the facility to update their Tier II report or RMP Plan.

This helps the Inspector in recommending improvements that the facility should make to hazardous materials storage and/or use and significantly speeds up the inspection process.



The Use of E-Plan for Pre-Planning

A number of Fire Departments and Local Emergency Planning Committees (LEPC's) are using E-Plan for their Emergency Pre-planning. We all have a pretty good idea of where the "Hot Spots" are in our own county, such as chemical plants, refineries, rubber or plastics processing facilities, etc. But, have we ever thought a frozen food plant or a poultry processing plant as a "Hot Spot"? How about a water treatment plant or electronic chip making plant? Many of these types of facilities have huge quantities of ammonia or chlorine or hydrofluoric acid on site.

By using the "Chemical Search" function of E-Plan, the Fire Department or LEPC can quickly search out where large quantities of Hazardous Materials, (such as Chlorine, Bromine, Methyl Bromide, Ammonia, Arsine, Hydrofluoric Acid, Sulfuric Acid, solvents, Phosgene, Phosphine, etc.) are stored.

With the aid of the "Enhanced Google Map" function, the planner can see where these Hazardous materials are stored in relation to particularly sensitive facilities, such as schools and hospitals.

This is a great help in pre-planning emergency response, including the need to utilize and teach "Shelter In Place" or to plan notification and evacuation scenarios.



E-Plan' Tier II Report Filing

COMPANIES – Use *E-Plan's Online Tier II Reporting System* if you want to save time and money and trouble filing Tier II reports and make sure they get to your local First Responders.

FIRST RESPONDERS – Do you want to always have up-to-date Tier II Reports for your facilities? Encourage your facilities to use *E-Plan's Online Tier II Reporting System*. This is a good reason for you or your Fire Inspector to visit your local facilities, tell them about *E-Plan's Online Tier II Reporting System*, and look over your pre-plans.

E-Plan is offering managers with responsibility for filing Tier II Reports for a plant or facility an online system that simplifies the process for creating the Tier II submission files. Since the system is online, *there is no software to download or install*. The submitter goes to the secure web site on E-Plan, enters their company Tier II data in a secure location that is ID and password protected. After the company enters their data into the E-Plan system, it can then create a set of Tier II zip files that can be written to CDs or printed in hard copy and filed with the appropriate state and local agencies.

You can get started by going to the E-Plan web site at <https://erplan.net>. Click on the "*E-Plan Online Filing (Tier2)*" link on the left sidebar.

The screenshot shows a web browser window displaying the E-Plan Online Facility Information Filing System. The page has a header with the E-Plan logo, UTD logo, and a welcome message. The main content area contains a login form with the following elements:

- Access ID:
- Password:
- Sign In button
- Register Now button (for new users)

At the bottom of the page, there are links for Contact Us, FAQ, and a dropdown menu for Select a Tour.



The Use of E-Plan for Training

E-Plan has a number of built-in training features that you can use. You can access these E-Plan training features as follows:

1. Training to use E-Plan –

Go to the E-Plan home page at <https://erplan.net> and click on the “Training and Registration” button on the left side bar. You then have the choice to sharpen your skills in using E-Plan by clicking on the following link:

If you wish to take Training on how to use E-Plan system, Click here.

By clicking on this link, you can take the built-in training to sharpen your skills in using E-Plan on your computer at your own pace.

2. Practice on pre-written accident scenarios –

Go to the E-Plan home page at <https://erplan.net> and click on the “Training and Registration” button on the left side bar. You can then sharpen your dispatch and emergency planning skills by working through the two “Accident Scenarios” built in to E-Plan. Choose one or both scenarios listed below and compare your skills with the computer!

To obtain training on how to deal with an accident scenario, Accident on Railroad Grade Crossing, Click here.

To obtain training on how to deal with an accident scenario, Accident in a Rubber Molding Plant, Click here

3. Develop your own accident scenarios –

Go to the E-Plan home page at <https://erplan.net> and log on to E-Plan. Then select a company or facility in your area and create your own “Emergency Incident” with one or more Hazardous Chemicals and work through the incident with the input of other Hazmat Specialists in your station.

4. Sharpen your knowledge on specific chemicals –

Go to the E-Plan home page at <https://erplan.net> and go to the “Chemical Search” button on the left side bar. You now have access to 24,000 unique chemicals in the E-Plan database. You can now check on such chemicals Ammonia, Propane, Chlorine, Caustic Soda, Sulfuric Acid, Hydrochloric Acid, Bromine, Siloxane, etc. by name or UN Number. You can study each chemical and become more familiar with its properties, personal protection equipment required (from the “Profile” information), how to attack a spill or leak, etc.

Using E-Plan for Planning and Response

*By Trent Walker, Greensboro Police Department, Special Operations Division,
Chief Warren Ritter, Greensboro Fire Department, and
Marilyn Braun, Greensboro Emergency Management Department*

Greensboro, NC has taken an integrated approach to using E-Plan for planning and response in a variety of ways. Trent Walker, Police Department (PD), Chief Warren Ritter, Fire Department (FD) and Marilyn Braun, Emergency Management Department (EMD) work closely together to use E-Plan as an all-hazards resource and response tool.

Here is how they use E-Plan:

“The Greensboro PD and the Greensboro FD have introduced E-Plan as a planning and response resource for the Greensboro Police’s Hazardous Devices Team and Greensboro Fire’s Hazardous Materials Team. Prior to having access to E-Plan, we could not find an efficient means of accessing the data from SARA Title 3 on the scene of emergency operations. We had little relational data on facilities with high risk chemicals. E-Plan certainly has changed all that. The growing industry data profiles are now relating to a number of resource data bases for our use.

Tier Two Submittal/Risk Information: Greensboro EMD operates as a planning, response and recovery resource to Police and Fire Command. The office is currently assisting industries to submit their SARA 312 data. The fields will be expanded this coming year to include any electronically submitted Contingency Plans (RCRA, SPCC, SARA, etc.). Information will also be extended to relate to the SARA 313 Toxic Release Inventory indicators.

Ecoflo, a local large hazardous waste facility recently volunteered to initiate the electronic contingency plan submission by converting their document from paper. Once the program is in place, a Business Mentoring Group (Univar, Konica, Vertellus, Lorillard and Clarice Garrett, LEPC Chair) will advise on program development and training.

A draft industry risk questionnaire has been developed which requests information covering SARA 303. We are exploring ways to bring the data electronically into the E-Plan. The LEPC has been so impressed with the program, that they have invited E-Plan to be a part of their yearly (Statewide) Environmental Health and Safety Conference.

Weapons of Mass Destruction Response: E-Plan provides for a readily available reference resource that the Hazardous Devices Team and Hazardous Materials Team can use when dealing with possible CBRNE devices.

Hazardous Materials Events: The team (and other Incident Command personnel) can quickly access vital intelligence such as WMD agent information, maps of chemical facilities, and MSDS sheets when working in unison with the Greensboro Fire Department’s Hazardous Materials Team. We are now able to ascertain facilities with Extremely Hazardous Substances at a glance.

Evacuation: E-Plan has become an important resource when pre-planning for and responding to chemical releases requiring or potentially requiring either In-Place shelter or movement of people.

Pre-plan: The Greensboro Fire Department has recently started a program to have a comprehensive pre-plan on 112 R facilities within the City limits of Greensboro. Approximately 95% of the initial information needed was obtained from E-Plan. Once the pre-plans are completed, Command Staff of the Greensboro Fire Department and Greensboro Police Department will be briefed on the hazards, evacuations and critical operational procedures required to handle incidents at these facilities.

We are looking forward to multi-agency training when E-Plan schedules more advanced training. We anticipate the program developing in North Carolina. This will greatly assist us with any Statewide Mutual Aid.

In short, by supporting the pre-planning, response and recovery in the way it does, E-Plan is not only Emergency Planning, but Excellent Planning.

It is helping us provide the highest level of program excellence for the safety of our community and its emergency responders.”

Using the E-Plan “Map” and “Chemical Search” Features to Pre-plan Evacuation Routes or “Shelter in Place” for Schools and Hospitals

Pre-planning can save valuable time during an emergency!

By Nick Macchiarolo, retired chemical industry manager and former Union County, Arkansas LEPC Chair

One of the most serious scenarios facing First Responders during a Hazmat Emergency is the possibility of hazardous vapors or fumes reaching sensitive targets, such as hospitals or schools. E-Plan provides a Facility Chemical Search capability to selected users who have responsibility for pre-planning response in case of emergency. If your account includes the permission to use the Facility Chemical search function, you can combine it with “Enhanced Google Maps” to examine scenarios to see if your Hazmat Facilities can impact schools or hospitals during an emergency.

Here is how to do it:

1. Make a list of chemicals that you know can be released into the air and form potentially hazardous clouds, such as ammonia, chlorine, fuming sulfuric acid, hydrofluoric acid, methyl bromide, phosgene, etc.
2. Go to the “Chemical Search” feature of E-Plan and search for facilities that have one of these chemicals, such as ammonia. Chemical Search will give you a list of all facilities that have this chemical, such as ammonia.
3. Click on the name of the first facility on the list.
4. Click on “Advanced Google Map” for that facility and you will get a map showing all schools and hospitals within five miles of the facility.
5. Evaluate the location of the school and/or hospital and decide if a release is possible and what you would do - evacuation or shelter-in-place.
6. Make a note of your decision in your pre-plan.
7. Go to the next facility and repeat steps 4, 5 and 6.
8. After you have gone down the whole list of facilities, start over with your next hazardous chemical, such as chlorine.

Just as a side note, be sure to make a list of schools and hospitals that you want to be able to “Shelter-in-Place” and make sure they know how. A good way to do this is to contact your Superintendent of Schools (schools all have emergency procedure manuals, nowadays) to make sure “Shelter-In-Place” is in their Emergency Procedure Manual. Do the same for your area hospitals.

Your LEPC can be a valuable aid in this effort. LEPC members can go with your Fire Inspector to each school to evaluate their “Shelter-in Place” capability by selecting a “safe room” and making sure the school has plastic sheeting, duct tape and appropriate signs for sheltering in place.



The Use of E-Plan Mapping

As Fire Departments find more ways to use GIS, firefighters are better informed than ever to make effective decisions.

It is always important for firefighters to have a good sense of the lay of the land. E-Plan helps them do that in at least two ways:

During a response:

By using the “Google Map” feature of E-Plan with its satellite photos of the area in question, firefighters can plan their attack on a fire or hazmat emergency, taking into account street access, possible run-off problems to nearby streams, creeks, lakes or ponds, and possible evacuation scenarios. The photos will show residential or housing areas and shopping centers. The Hybrid Map shows locations of schools and hospitals.

The firefighter can simultaneously click on the “Weather” button for a facility to get the National Weather Service actual local weather and forecasts to determine temperature, humidity and wind direction without the need of a self-contained weather station.

With all this information at hand, the firefighter can make better, effective decisions to protect themselves, the people involved in an incident, the surrounding community and the property involved.

For pre-planning:

Fire Inspectors and Fire Marshals can utilize the very same tools listed above (Google Map, Google satellite photos, hybrid maps and NWS data) to develop firefighting and evacuation/shelter-in-place scenarios for the Hazmat Facilities in their jurisdiction. Having all this information makes pre-planning faster and more reliable.

E-Plan Use for New Madrid Earthquake – Spills of National Significance Drill on June 19 – 21, 2007

By Jim Staves, EPA Region 6

During June 19th through the 21st, dozens of Federal and State agencies joined together to participate in a massive exercise designed to increase the preparedness of the entire national response organization, from the field level to agency heads in Washington, D.C. The Exercise was one in a series of “Spill of National Significance” (SONS) exercises that have been conducted since 1997. A SONS event, is described in the National Contingency Plan (40 CFR part 300) as “a spill that, due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge”. The 2007 exercise was based on a catastrophic earthquake scenario involving the New Madrid fault line.

Not as well known as its western cousin, the San Andreas fault, the New Madrid Seismic zone lies within the central Mississippi Valley, extending from northeast Arkansas, through southeast Missouri, western Tennessee, western Kentucky to southern Illinois. Historically, this area has been the site of some of the largest earthquakes in North America. Between 1811 and 1812, 4 catastrophic earthquakes, with magnitude estimates greater than 7.0, occurred during a 3-month period. Some of these quakes were so severe that they caused the Mississippi River to flow backwards for three days and rang church bells in Boston!

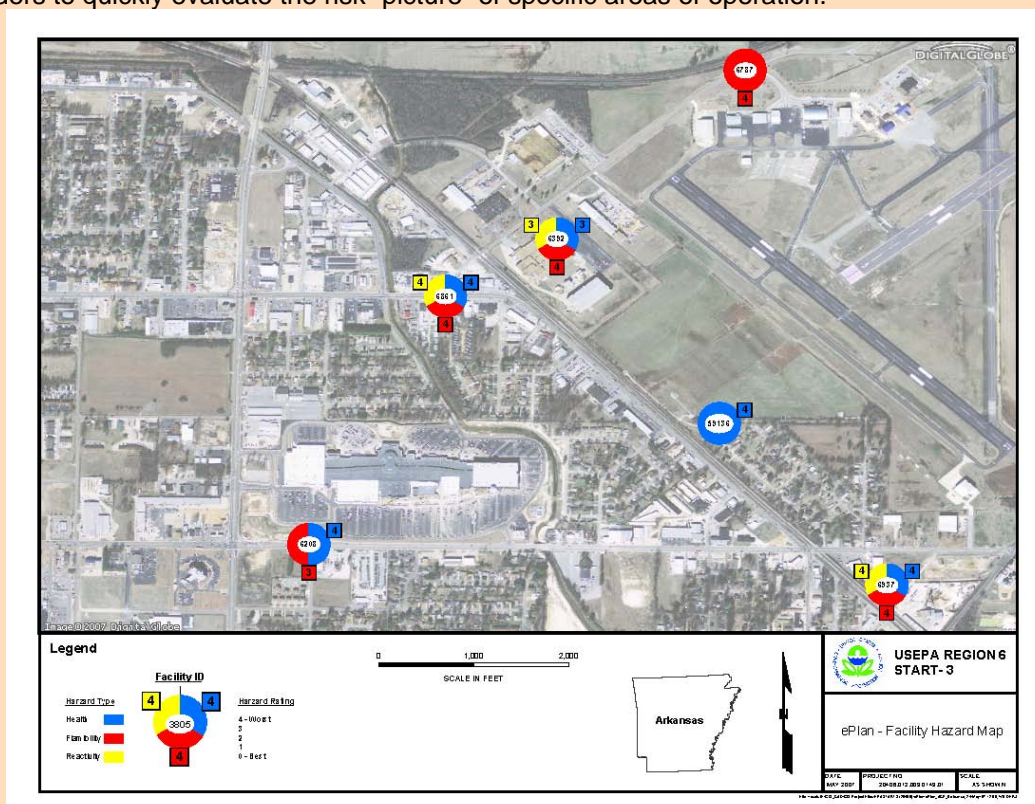


While initial response efforts to such an event would necessarily focus on evacuation, provision of emergency medical care, and the provision of food, water, and shelter, there are also thousands of chemical facilities in the impact area that could pose immediate threats to the public and responders.

The EPA is tasked with responding to those threats under Emergency Support Function #10 of the National Response Plan. Because of the extremely large numbers of chemical facilities potentially affected, and the expansive geographic area involved, EPA, and others involved in hazmat response actions would need a way to not only access information about chemical hazards associated with a particular facility, but also to search and prioritize potential threats over large areas. In EPA Region 6, **E-Plan** was used to support those tasks.

Exercise Planners used E-Plan to assist in developing hazmat release scenarios that would test responders at the field, incident command post, and emergency operations center levels. Over 50 release scenarios were developed that would require response actions. Field responders used E-Plan to access information about the facilities they were responding to, so they could develop safety plans and assess the relative health risks. Planning Section staff in the ICP and EOC used the powerful facility / chemical search features to prioritize facilities for rapid needs assessments.

In addition to using E-Plan on-line, data was downloaded from E-Plan, and used in the Regional GIS center to produce facility "relative risk" maps, that used unique, quantitative risk icons to allow responders to quickly evaluate the risk "picture" of specific areas of operation.



In these maps, each facility was represented by an icon using familiar NFPA colors and numerical rankings. These symbols differ from NFPA diamond diagrams, however, in that the actual numerical scores represent a cumulative product of the NFPA scores for each chemical, multiplied by the chemical's quantity, for all chemicals at a facility. Thus, a facility icon with a yellow 4 represents a greater overall reactivity risk than one with a yellow 3, 2, or 1, and the same would follow for flammability and health risk. The satellite imagery used for the map background illustrates proximity to population centers. Use of these maps, in conjunction with incoming information on planned evacuation routes, temporary shelter areas, and forward command post locations allowed planning, and operations staff to quickly evaluate which facilities required the most immediate attention in order to support the overall operational objectives.

While this type of data management activity is probably beyond the capability, or needs of a typical fire department, it was viewed as being very useful for characterizing hazmat threats over broad geographic areas, which may be affected by many classes of natural disasters. EPA Region 6 will continue to explore new applications of data from E-Plan as part of its ongoing Area Contingency Planning programs.