ETHANOL PLANT TRAINING PLAN (EPTP)

State Fire Marshal Training Division

Even though ethanol plants in Nebraska have been around since 1985, most training and response considerations were localized and were a cooperative effort between plant personnel and the fire departments. In the past few years, more emphasis has been placed on emergency response to these plants and the type of emergencies that may surface because of onsite hazardous materials.

Most information available about ethanol plants is favorable and promising – promoting the development of the plants and the creation of new jobs, providing valuable new industry for the communities and the State, and creating a new market for the corn producers. Because of regulations and constant observations during construction and operation, the view of these plants is positive.

Regardless, incidents can and do happen. Past incidents described as "A sudden whistling sound and heavy black smoke from the auger area and the silo walk-in door" or "the top of the silo began to crease inward at the silo cap", and yet another incident had firefighters spending 16 hours battling a fire that spread to a system of pipes, blowers, and heating elements.

That's why safety is paramount, and it is evident this must and will start at the plants. Nevertheless, the local emergency responders need to understand construction operations, plant functions, and transportation avenues; where onsite equipment is positioned to control problems and what employees are directed to do during an incident; and what the worst-case scenario may present for unforeseen tactical considerations. The onsite hazardous materials must be identified, including the storage locations and quantities. And should something unthinkable occur, emergency responders must understand what effects may occur from a combination of products that may manifest themselves into an incident of mass proportions.

Just recently, the Nebraska Ethanol Board signed a safety agreement with OSHA, and as the publicly released statement reported:

The Nebraska Ethanol Board has partnered with the U.S Department of Labor's Occupational Safety and Health Administration (OSHA) and Nebraska Workforce Development's OSHA Consultation Program to promote practices that help ensure the health and safety of employees in the ethanol industry. The Nebraska Ethanol Partnership will create a set of protocols for ethanol workers to follow in the event of catastrophic incident during the production, storage or transportation of ethanol.

The agreement also aims to reduce the rate of incidents by 10 percent within two years. Voluntary participants in the program will also work with OSHA and the Nebraska Ethanol Board in promoting workplace safety training and education. Several training seminars are scheduled for September.

"Ethanol is the fastest growing industry in our state and within months Nebraska will have the capacity to produce one billion gallons of ethanol annually," said Nebraska Ethanol Board administrator Todd Sneller. "Because this is such an important part of Nebraska's economy, it's extremely important that industry work hand-in-hand with government to ensure the health and safety of ethanol workers and all Nebraskans," Sneller said. The agreement was signed Monday, June 18th at 11 am at the Nebraska Department of Labor Building in Lincoln. End of statement.

This influx of plant development combined with the need for planning and preparedness has precipitated requests to the State Fire Marshal Training Division for the training that specifically would be needed, should the local fire department have to respond to assist or mitigate a plant emergency. After review of some of the numerous plants in Nebraska, visits with plant personnel, and discussions with fire department personnel; it became apparent no one plan would specifically address all plants. However, the Training Division staff decided a Training Plan addressing generic concerns would provide most fire departments with a benchmark for response – a platform to start concentrating their training efforts on the potential that does indeed exist at all plants.

The State Fire Marshal Training Division can assist the local fire department with training courses in order to better prepare department members to handle emergencies at their local ethanol plants. The following information will provide you with a training plan addressing a variety of courses that will complement your response capabilities to an ethanol incident. This is a plan of the training that would assist the organizations; it is not a training package requiring an organization to take all these courses. They may have most of this training from previous courses that we have presented, however, if the last training date has been three or more years, it is best to refresh those topics with another course.

TRAINING PLAN COMPONENTS:

- BASIC FIREFIGHTING SKILLS – FIRE FIGHTER I
- SELF-CONTAINED BREATHING APPARATUS
- HAZARDOUS MATERIALS: OPERATIONAL LEVEL
- BASIC ROPE RESCUE
- FOAM OPERATIONS
- CONFINED SPACE RESCUE
- BASIC PUMP OPERATIONS/WATER SUPPLY
- INCIDENT COMMAND SYSTEM

The Training Division also suggests the local emergency response organizations make arrangements to do **Pre-Incident Surveys** with the plant's Safety Personnel. Because each plant will be designed and operated a little differently from the other plants in the State, its best if the local fire department and mutual aid departments cooperatively tour the plant and establish a plan based on their observations.

Additional Training Information:

From the Renewable Fuels Association and promoted by the Nebraska Ethanol Board – a new video titled "Responding to Ethanol Incidents". Go to the EthanolRFA.org website at http://www.ethanolrfa.org/industry/resources/safety/ for information on viewing/purchasing the video.

Disclaimer: The State Fire Marshal Training Division is not indicating these course topics as being the only important information/training required for response to an emergency at an ethanol plant. Each plant, including the site plan, employees, managers, and operational processes will dictate the specific needs of the plant. These topics will provide a good foundation for a favorable outcome on your next response.