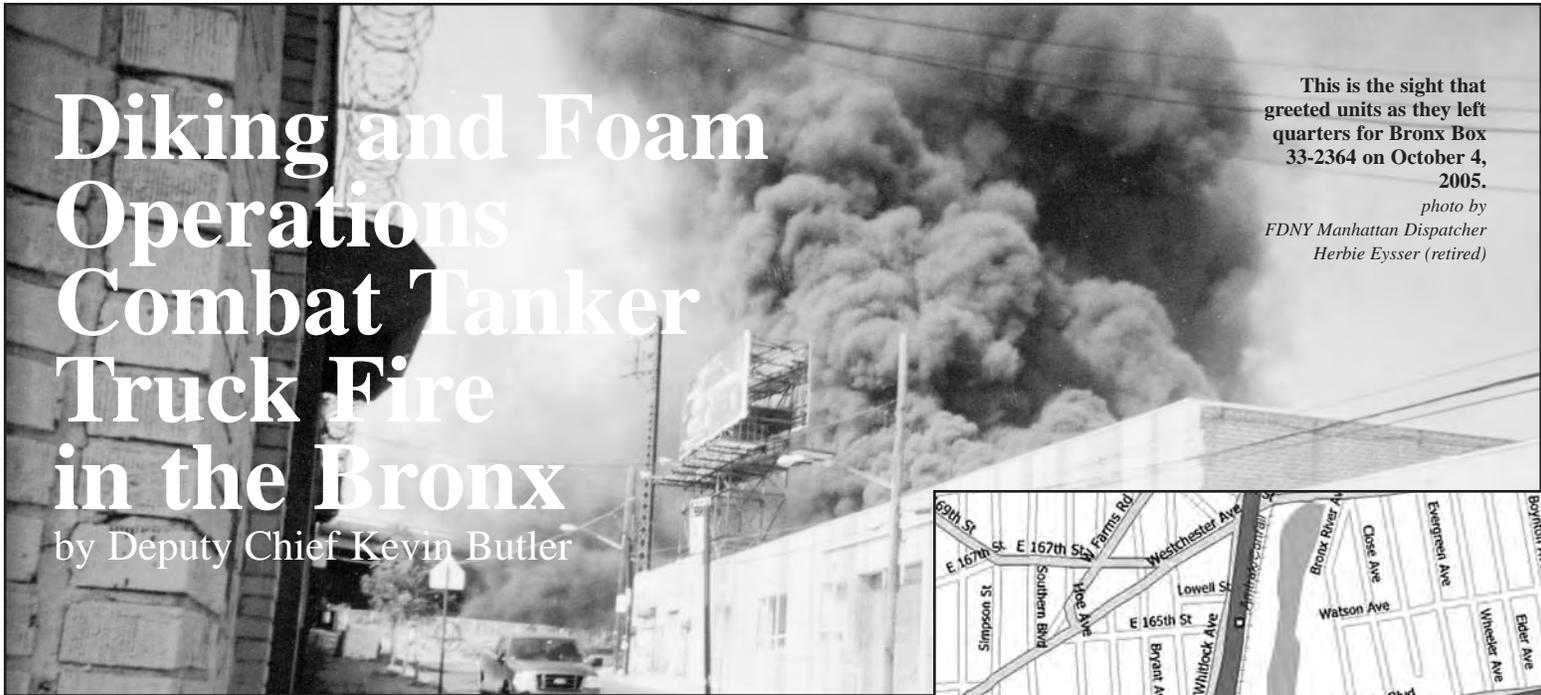


# Diking and Foam Operations Combat Tanker Truck Fire in the Bronx

by Deputy Chief Kevin Butler

This is the sight that greeted units as they left quarters for Bronx Box 33-2364 on October 4, 2005.

photo by  
FDNY Manhattan Dispatcher  
Herbie Eysser (retired)



The Bruckner Expressway is a major north/south highway transverse the Bronx. It begins at the base of the Triborough Bridge--the southernmost tip of the borough--and eventually becomes the New England Thruway as it approaches the Westchester border. As the Expressway travels through the south Bronx, it is an elevated roadway. Beneath this elevated portion is Bruckner Boulevard, a heavily traveled, major local roadway. As they near the Bronx River--the northern border of the Hunts Point section--both roadways turn sharply to the east. The Bruckner Expressway drops to grade level and Bruckner Boulevard runs alongside it as the service road.

Amtrak's Northeast Corridor is the busiest passenger rail line in the nation in terms of ridership and service frequency. As this rail system makes its way north from Manhattan's Penn Station through the Bronx, it runs along the east side of Bruckner Boulevard. The tracks are located in an open cut about 50 feet below grade level. The cut is about 100 feet wide. As both roadways of the Bruckner join and turn easterly, Amtrak continues north. The Bruckner crosses over these tracks.

This point of the roadway has been the scene of many serious accidents and is well known to local units. This is where Bronx units were severely tested on the afternoon of October 4th, 2005.

## Description of the accident

A tanker truck traveling north on Bruckner Boulevard failed to negotiate this dangerous curve, flipping on the driver's side. It came to rest leaning on the Jersey barrier separating the northbound service road, Bruckner Boulevard and the northbound express lanes of the Bruckner Expressway. The tanker's final location was on the overpass directly above the Amtrak lines, where it tore open and burst into flames.

The elevation of the overpass is slightly higher than that of the remaining Bruckner. This grade difference

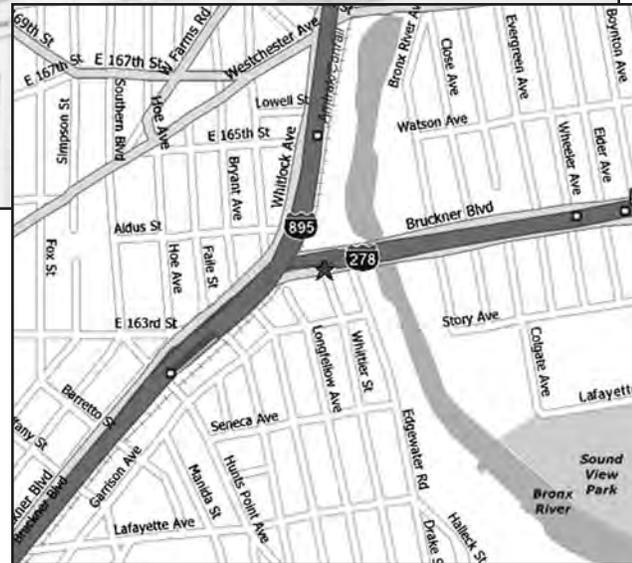
caused the burning product to flow in all directions from the overpass.

The location of the tanker atop the Jersey barrier allowed the burning product to fill both the northbound service road and the express lanes. The high heat caused rapid failure of the expansion joints of the overpass. (See photo below left.) This allowed hundreds of gallons of ignited fuel to pour to the tracks below.

## Conditions on arrival

At 1355 hours, Box 2364 was transmitted for a transportation fire on Bruckner Boulevard, near Hunts Point Avenue. Engines 94, 82 and 73, Ladders 48 and 31 and Battalion 3 were assigned. As units left quarters, a large column of thick, black smoke could be seen in the vicinity of the Bruckner and the Bronx River. (See photo above.)

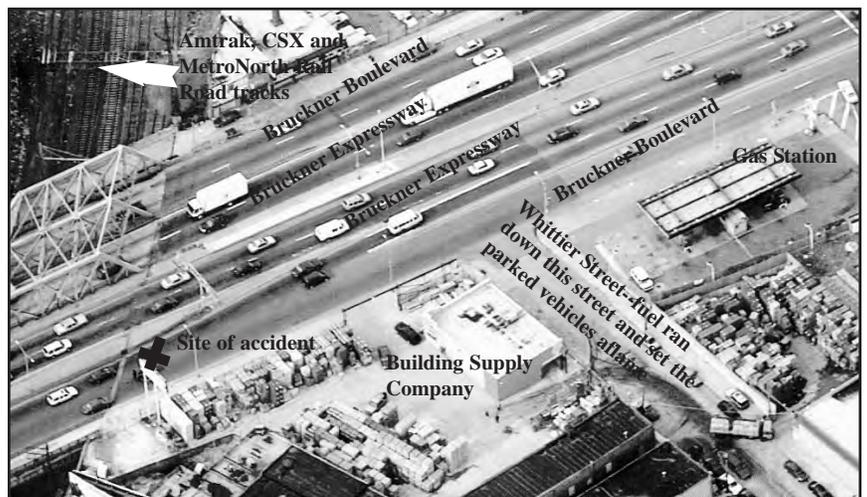
As units entered the intersection of Bryant and Garrison Avenues,



MapQuest



One of the expansion joints that buckled from the heat. Hundreds of gallons of burning fuel fell onto the track area.



courtesy of FDOC

they saw heavy fire in the street two blocks down at Garrison Avenue and Whittier Street. Battalion 3 transmitted a signal 10-75 at 1358 hours and units proceeded to Garrison and Whittier.

Whittier Street from Bruckner Boulevard to Garrison Avenue was fully involved in fire. Fire continued down Garrison to Edgewater Road. A 30-foot-high wall of flames severely exposed buildings on Whittier. A dozen vehicles were burning. Flames were impinging on power lines, causing them to arc and fall to the street. Fire issued heavily from manholes and sewers. Battalion 3 transmitted a second alarm at 1358 hours (45 seconds after the signal 10-75), along with signals 10-86 (Foam Operation) and 10-80 (Haz-Mat incident). Engine 94 prepared for extinguishment efforts on Garrison Avenue and Ladder 48 members made their way to Bruckner Boulevard to report on conditions.

#### Reported conditions

In addition to an obviously severe situation met on arrival, the first units on the scene received the following reports from a variety of sources:

- People were trapped in the commercial occupancies along Whittier Street.
- An occupied van was beneath the tanker truck.
- There was a train on fire in the rail cut below.
- There were children trapped in a school on Longfellow Avenue and Bruckner Boulevard.
- Product was entering the nearby New York City subway system.
- There was a major gas line rupture and fire in a manhole in the vicinity of the tanker.
- Fire was severely exposing the large gas station on the corner of Bruckner Boulevard and Whittier Street.

Fortunately, most of these reports proved to be inaccurate, but all had to be investigated quickly.

#### Considerations

First-alarm units were faced with a severe situation on arrival; conditions continued to deteriorate. Members' immediate goal was to rapidly conduct search and rescue operations for the many reported life hazards. Simultaneously, members attempted to stabilize the incident to keep it from expanding. A key to that stabilization was containing the flowing liquid. Diking efforts were critical.

Another serious consideration was the possibility of a BLEVE (boiling liquid expanding vapor explosion). Usually, a BLEVE is associated with flammable gases stored as liquids--such as LPG--but containers of flammable and combustible liquids also can BLEVE. For this reason, it was imperative to get a cooling water application to the upper area of the tanker as soon as possible. Units also were told not to operate from the ends of the tanker and to apply hose-streams from a distance and only from behind the protection of a substantial object, such as a Jersey barrier.

Though the information about the tanker and its product were unknown until well after the fire was under control, the vehicle involved was a 1990 Mack tractor, with a 1972 Billings trailer. The trailer was of steel tank construction with a capacity of 7400 gallons. It was fully loaded with refined low sulphur #2 diesel fuel, also known as fuel oil. The flash point of this combustible liquid (the lowest temperature at which a liquid can form an ignitable mixture in air near the surface of the liquid) is 125 degrees Fahrenheit, has a specific gravity of 0.87 and an auto-ignition temperature of 495 degrees Fahrenheit. Although first-arriving units were met with a fireball and a wall of flame, an unusual hazard of combustible or flammable flowing oil is that it can be ignited by self-generated static electricity.

#### Operations

This operation was broken down into three sectors: The Bruckner Sector included the Bruckner from the tanker to Whittier Street, which was supervised by Battalion Chief Thomas



Diking operations in the Bruckner Sector, which stemmed the product flow, were crucial to the successful conclusion of this incident.

McKiernan, Battalion 3. The Whittier Sector included Garrison Avenue from Whittier to Edgewater Road and Whittier from the Bruckner Expressway to Garrison, which was supervised by Battalion Chief George Gabriel, Battalion 26. The Longfellow Sector was the portion of the Bruckner Expressway from the rear of the tanker to Bryant Avenue--including the railroad cut below--which was supervised by Battalion Chief Robert Lombardo, Battalion 17.

Deputy Chief and 6th Division Commander Kevin Butler arrived at 1405 hours. A third alarm was transmitted and additional foam resources requested by Chief Butler. Then-Deputy Assistant Chief James Esposito, Bronx Borough Commander, arrived at approximately 1430 hours and assumed overall command. Operations were carried out concurrently in the three sectors, as follows:

**Bruckner Sector:** The three main priorities of this sector were to establish containment dikes to stop the flow of product down Whittier; apply water to the vapor space of the tanker to prevent a BLEVE; and set up a large-caliber foam stream.

Perhaps the one fortunate aspect in the location of the incident was that a building supply company was situated on the corner of Bruckner Boulevard and Whittier Street, opposite the gas station. The ample supply of sand at this location was one of the largest contributing factors to the successful conclusion of the operations. At one point, a member of Ladder 42 with experience in operating heavy equipment used a backhoe to deliver large quantities of sand from the yard to different locations on the Bruckner. Establishing substantial dikes quickly stemmed the flow of burning product down Whittier Street, allowing hand-lines to successfully conclude extinguishment in that sector.

**Whittier Sector:** Immediately on arrival, Engine 94 took a hydrant and stretched two 1<sup>3</sup>/<sub>4</sub>-inch hand-lines. One line was supplied with foam and the other with water for use in exposures or, if necessary, to protect members operating the foam line. Members began the task of extinguishing fire on Garrison Avenue, then up Whittier Street to the Bruckner Expressway.

Ladder 48 members made their way to the Bruckner Expressway and reported conditions to the 3rd Battalion. They attempted to approach the tanker for possible rescue of any person trapped in the vicinity. The tremendous heat emanating from the tanker, as well as the large area of burning product surrounding it, prevented them from getting near the tanker. Using sand, they then began diking efforts.

Engine 82 arrived at Garrison and Whittier and split the company. The Officer and two Firefighters began searching the exposed building where people reportedly were trapped inside. The rest of the company assisted Engine 94 in extinguishment efforts. Ladder 42 was ordered to assist Engine 82 in VES of the extremely exposed occupancies. Squad 41 and Rescue 3 also were assigned to search efforts. Seven trapped occupants were removed. When Ladder 19 arrived, it was designated as the FAST unit.

Engine companies arriving on additional alarms stretched



Members of Engine 73 operate a foam hand-line behind a Jersey barrier on the southbound service road.

foam lines and assisted with extinguishing operations on Whittier Street. These efforts were enhanced and facilitated by diking operations in the Bruckner Sector. The successful diking operations stemmed the flow of product, which greatly contributed to the quick and efficient extinguishment of all fire on Whittier Street. As units completed search assignments on Whittier, they were assigned to diking efforts on the Bruckner. (See photo on page 3.)

**Longfellow Sector:** Due to the tremendous volume of fire, all lanes of the Bruckner Expressway were impassable. With this in mind, the Longfellow Sector was established to supervise operations being conducted to the rear (exposure #3 side) of the incident.

Based on the information obtained from Ladder 48, Battalion 3 ordered the third-due engine--Engine 73--and Tower Ladder 31 to set up for foam operations on the Bruckner, near Longfellow Avenue. While the Tower Ladder was setting up and awaiting the arrival of a foam carrier, Engine 73 was ordered to operate a 2<sup>1</sup>/<sub>2</sub>-inch hand-line from behind the Jersey barrier of the southbound service road onto the tanker. (See photo above.)

To prevent a BLEVE, it is imperative to keep the vapor (air) space of the tanker cool. The liquid product remaining in the tank acts as a heat sink, drawing the heat from the fire into the liquid and away from the container. This is not so in the vapor space and it is in this area where the tank weakens and failure occurs, initiating a BLEVE.

Engines 83 and 92 arrived and stretched a foam hand-line. They extinguished fire flowing along the Bruckner, back toward Longfellow. They then were able to position themselves behind the wall of the overpass and apply a foam stream directly to the tanker from its flanks, assisting in both extinguishment and cooling the tanker.

Battalion 17 reported heavy fire issuing from the Amtrak cut. Power removal was requested, as well as cessation of all train traffic. Both of these requests are somewhat more difficult with these lines than with the New York City subway system. Amtrak uses catenary power lines, rather than a third-rail system. When power is removed, these lines remain energized. An employee of the railroad--known as the "A" Man--accomplishes complete removal. He is trained to work with high voltage and physically must respond to the scene to ground these overhead catenary wires.

Amtrak shares these tracks with CSX Transportation. CSX operates a freight line using diesel locomotors, which are not affected by power shutdown. Power removal is ordered and confirmation received through the FDNY dispatcher. At this operation, a CSX representative was requested and arrived at the Incident Command Post.

These factors made operations in the track area extremely dangerous. Energized power lines had burned and dropped to the track bed, possibly energizing the tracks. The heavy fire beneath

the concrete overpass caused heavy spalling and large chunks of cement fell to the track bed below. Ladder 58 set up safety teams to warn of train traffic, while Engine 46 stretched and operated a foam line a safe distance from the tracks. Foam Carrier 260 members operated a foam line from street level onto the tracks. Fire in the track area soon was brought under control.

As conditions stabilized on Whittier Street, exposure #2, and Longfellow Sector, exposure #3, hand-lines were brought up to the Bruckner and trained on the tanker. Satellite 2, Tower Ladder 54 and Foam Carrier 96 set up for foam operations on the southbound lanes of the service road at Whittier Street. In short order, an elevated foam stream was applied from Ladder 54's bucket.

With numerous hand-lines and a Tower Ladder now applying foam to the tanker, Chief Esposito declared the fire *Probably Will Hold* at 1502 hours and *Under Control* at 1519 hours. The driver was fatally injured, unable to exit the cab. No other vehicle was involved in this accident and no other serious civilian injuries were reported.

#### Lessons reinforced

- Training is the backbone of this and any other fire department. Each tour, members must expect the unexpected. The fact that units had been training in foam operations was readily apparent. This training was the major factor in efficiently developing the required foam applications to bring this tanker truck fire and flowing fuel fire under quick control. Very few incidents have the potential for escalation as does a fuel oil tanker truck rollover and fire. FDNY units were faced with critical life hazards, severe exposures and a rapidly expanding incident. Every unit that stretched a foam line or developed a large-caliber foam stream did so quickly, efficiently and professionally. Coincidentally, several of the units involved in operating the foam hand-lines and large-caliber streams attended foam training at the Fire Academy with Battalion Chief Steven San Filippo the previous night tour.
- The Incident Command System (ICS) brought command, supervision, safety and organization to a chaotic situation. The large area involved required three distinct sectors under the supervision of a Battalion Chief. Each Chief had to deal with his related fire problem, exposures and life hazards. An Operations Chief (Chief Butler), who reported to an Incident Commander (Chief Esposito), supervised these sectors. Problems were identified and objectives established. **FDNY Haz-Mat Resources, Safety Coordinators, FAST units, Technical Specialists and Foam Coordinators reported to the Incident Command Post unless directed by the IC via the dispatcher to a specific on-scene location.**
- Sector Chiefs, the Safety Chief and Safety Coordinators had their hands full as high-voltage wires fell from overhead wood poles in the Whittier Sector onto Whittier Street and adjacent cars, streets and sidewalks. In the Longfellow Sector, catenary wire supports failed and high-voltage wires fell to the Amtrak and CSX railroad track area. This was due to the flowing fuel fire impinging where Firefighters were working in the railroad cut. Here, too, Safety Coordinators kept a watchful eye on large sections of concrete that spalled and fell from underneath the Bruckner Expressway overpass to the track area below. Long sections of adjacent concrete walls similarly failed and fell to the tracks below. Strategies and tactics to accomplish the objectives were methodically carried out and ultimately led to a safe conclusion.
- Also reporting to the Incident Command Post were the following agencies: conEd, Amtrak and CSX railroads, Metropolitan Transportation Authority, New York State Department of Transportation, Department of Buildings, Department of Environmental Protection, Department of Environmental

(continued on page 6)

# Foam Operations on the Bruckner Expressway

by Battalion Chief Steven San Filippo

Large-scale foam drills are scheduled twice a year in the spring and fall. This training was put to the test on Tuesday, October 4, 2005. After teaching the Battalion Chiefs Command course at the Fire Academy and dismissing the class that day, I received notification of a tanker crash on the Bruckner Expressway in the Bronx. While responding, signal 10-86 was transmitted over the Department radio for a fluoroprotein foam operation, which required the following response:

- Two Foam Carriers and associated Engine Companies
- Two Foam Coordinators (Battalion Chiefs)
- One Satellite unit and associated Engine Company
- One Foam Tender and associated Engine Company
- One Purple K unit and associated Engine Company

**Note:** If alcohol foam is required, this must be specified by the Incident Commander when transmitting the 10-86 signal.

Monitoring the radio while responding, I realized that the Foam Carriers and foam operations, in general, would play a vital part in extinguishing this tanker fire. On arrival, I found first-arriving units--Engines 73, 82 and 83--already operating foam hand-lines and applying fluoropolydol (alcohol) foam from five-gallon cans.

This initial attack afforded FDNY the time to set up a larger-scale foam operation. Engine 72/Satellite 2, responding together and in conjunction with Engine 96/Foam Carrier 96, became the hub of the large-scale foam operations. As the foam hand-lines were applying fluoropolydol to the tanker, Tower Ladder 54 took a position on the opposite side (north side) of the tanker from where the hand-lines were operating and set up their bucket with a 500-gpm foam nozzle. Satellite 2 proceeded to drop 100-foot lengths of five-inch hose from Engine 72 to TL-54.

Simultaneously, Foam Carrier 96--carrying 1000 gallons of fluoroprotein foam--was ordered to supply Engine 72 with foam concentrate at 50 psi higher than Engine 72's intake pressure with water flowing to ensure a proper mixture of concentrate into Engine 72's pumps. Engine 72's ECC adjusted the built-in FIMM (foam injection metering module) to supply foam solution to TL-54 at a three percent solution.

**Note:** All FDNY Satellite units have 2000-gallon pumpers equipped with built-in FIMMs. With this in operation, members had an unlimited supply of foam (1000 gallons) to extinguish this fire. Additionally, all FDNY foam carriers have the capability of being re-supplied on the scene by another foam carrier.

When the hand-lines exhausted all the five-gallon cans of fluoropolydol foam that were on the scene, the Incident Commander decided to employ Engine 152's Foam Carrier to supply the foam hand-lines instead of calling for additional five-gallon containers. This was accomplished by connecting a hand-line to one of the built-in eductors that each Foam Carrier has mounted on the Officer's side of the apparatus. This provided members with 1000 gallons of fluoroprotein foam concentrate, which could be operated with a hand-line and foam nozzle. The advantage to this operation is that--as mentioned earlier--each Foam Carrier can be re-supplied if the situation arises.

Foam operations should not be started unless there is enough foam concentrate on hand to accomplish our goal. At this operation, that was very apparent and one of the main concerns. The success of this operation hinged on the first-due units' initial attack with foam hand-lines and the well-coordinated adjustment by the Foam Carriers and Satellite units to set up large-scale operations. This is a testament to the dedication to training by all the units involved and especially the units that participate in the large-scale foam drills. Well done.



photo by FF Chris Landano

While the dikes were being established, Tower Ladder 54 was positioned on the north side of the tanker and members operated the 500-gpm foam nozzle.

## Ethanol: A New Problem for the FDNY

by Battalion Chief Steven San Filippo

With the recent spike in gasoline prices and the possibility that a gallon of gasoline could cost upward of \$4, the search is on for an alternate fuel to power our automobiles. Ethanol fuel has been around for decades and is not a new idea. The first Model-T Ford was designed to run on ethanol. Ethanol now has reappeared as a possible alternative fuel to replace or augment gasoline. Last year (2005), saw record-high energy prices, along with disruptions from hurricanes and the increased need for the United States to become independent from foreign oil. It is a potential answer to our future energy problems.

### What is ethanol?

Ethanol is a simple alternative fuel that is derived from natural, renewable resources. In the United States, ethanol is a form of alcohol that is produced mainly from corn, but can be made from many other resources. Other countries--such as Brazil, France and Sweden--also produce ethanol and use myriad ingredients, such as cellulose-rich sources, including sugar cane, logging waste and sugar beets.

The process is similar to making alcohol with a still. Corn mash is heated in a still. The starch in the corn is converted to sugar, which is fermented to produce the fuel. The four billion gallons of ethanol used today are almost all used as a gasoline blending agent consisting of 10 percent ethanol and 90 percent gasoline (E-10). Currently, E-10 is used in all types of vehicles at regular fueling stations.

### What is E-85?

Ethanol 85 (E-85) is the combination of ethanol fuel that is blended with 15 percent gasoline and 85 percent ethanol. With the anticipated increase of E-85 vehicles (those that run on 85 percent ethanol blends), all the major auto manufacturers are increasing their production of ethanol vehicles. Most of the ethanol fuel produced and used in this country is in the midwest states. If oil continues to be problematic (supply, distribution, cost), E-85 could become popular and spread to the east and west coasts.

The fueling process for E-85 is identical to gasoline-powered automobiles. The benefits of this compared to gasoline are lower emissions of greenhouse gases, higher octane and less expense, plus it is made from a renewable source. Due to the limited ethanol infrastructure, 25 percent less energy per gallon and incompatibility with older cars, the E-85 supply is limited at this time.

### Ethanol production

In the United States, there are two basic processing methods: wet- and dry-corn milling. These two processes produce 3.9 billion gallons of ethanol annually in the United States. It is predicted that by the year 2025, 40 billion gallons will replace one-third of the unleaded gasoline used each year. But, for now, access to ethanol is limited to 600 pumps that sell to the public. None of those is in the northeast and only four are located in California.

### FDNY Foam Resources

#### Fluoroprotein Concentrate--1000 gallons each

- Engine 5--(Foam Carrier 5)--Manhattan
- Engine 96--(Foam Carrier 96)--Bronx
- Engine 152--(Foam Carrier 152)--Staten Island
- Engine 154--(Foam Carrier 154)--Staten Island
- Engine 167--(Foam Carrier 167)--Staten Island
- Engine 260--(Foam Carrier 260)--Queens
- Engine 294--(Foam Carrier 294)--Queens
- Engine 321--(Foam Carrier 321)--Brooklyn

#### Fluoroprotein Concentrate--3000 gallons

- Engine 238--(Foam Tender 1)--Brooklyn

#### Fluoropolydol (alcohol) Concentrate--1000 gallons each

- Engine 95--(Foam Carrier 95)--Manhattan
- Engine 206--(Foam Carrier 206)--Brooklyn

#### Hi-Expansion Foam

- Engine 262--(Foam Carrier 262)--Queens

### Ethanol and the FDNY

Since the production and consumption of ethanol is mostly concentrated in the midwest states, one would feel that FDNY would have limited contact with E-85. This is not true. Every day, thousands of gallons of gasoline with 10 per-

cent ethanol travel through the City's streets. As the future supply of E-85 continues to increase, it will play a larger part in our everyday lives.

For example, Governor Pataki has plans to turn an old brewery in upstate New York into an ethanol production plant, capable of producing ethanol in large quantities. As production increases, more and more ethanol will be available for consumer use.

Another problem of which Firefighters must be aware is the ease with which ethanol can be produced at home by anyone. The internet provides the means to purchase equipment to convert the existing automobile to use E-85 and the equipment to make E-85. Not too far in the future, units may respond to private house fires that have ethanol distilling equipment on the premises.

#### Extinguishing E-85 fires

Extinguishing ethanol fires--whether large or small--can be accomplished by using fluoropolydol foam (alcohol), which every company should have. Recently, each FDNY apparatus has switched over to alcohol foam in five-gallon containers (engines carry three and ladders carry two), which provides members with dual capabilities. It enables members

*(Diking and Foam Operations Combat Tanker Truck Fire in the Bronx, continued from page 4)*

Conservation, NYPD and the Office of Emergency Management. Regular inter-agency briefings were conducted at the ICP until FDNY operations were concluded on October 5, 2005, at 0322 hours.

- Ample diking material is essential for successful containment of the product. The more product involved, the more diking material needed. Due to the amount of fuel oil involved, the size of the affected area, the amount of foam applied and water streams necessary for cooling the tanker, large amounts of diking material were needed. Even though a large supply was on hand at this incident, dikes had to be monitored and reinforced continually. The liquid level exceeded six inches, not including the foam blanket. Call for required resources early. Consider special-calling a Sanitation Supervisor and sand trucks, in case no other diking material is available.
- Early product identification often is critical to successful operations. This was not possible at this incident. Information about the product, the carrier and the driver were unavailable until several hours after the fire was brought under control. Had this fire involved a polar solvent fuel, the fluoroprotein foam carried by most FDNY foam carriers and the foam tender would have been ineffective. Try to know what you are dealing with as early in the operation as possible.
- The larger the amount of product and spill, the more foam that will be necessary. Anticipate how much foam will be needed and be proactive in special-calling and staging the required resources. It was apparent early on that many five-gallon cans of foam would be used for hand-line operations in all sectors. The logistics of re-supplying these sectors with five-gallon foam concentrate had to

Members are urged to read the following WNYF articles:

- "Death Stalks the BQE--Flipped-Over Gasoline Tanker/Truck Requires Foam Operation," by Deputy Chief Daniel Butler, in the 4th/2000 issue.
- "Pyrocool," by Lieutenant Ed Connelly, in the 4th/2000 issue.
- "Not Just a Bulk Delivery System--Functions of the New Foam Carriers," by Deputy Chief Richard Burban and then-Battalion Chief Joseph C. Saccette, in the 3rd/2003 issue.
- "Special Apparatus--FDNY's New Foam Carriers," by Battalion Chief John A. Calderone in the 3rd/2003 issue.
- "FDNY's Basic Foam Evolution," by Deputy Chief Richard Burban, in the 1st/2004 issue.
- "Diking and Foam Operations Combat Tanker Truck Fire in the Bronx," by Deputy Chief Kevin Butler, on page 2 of this issue.
- "Tanker Truck Accident and Fire on the BQE Create Multiple Challenges for FDNY," by Deputy Assistant Chief Ronald R. Spadafora, Deputy Chief Steven Kubler and Battalion Chief Robert J. Strong, on page 7 of this issue.

to extinguish regular hydrocarbon fires at three percent and alcohol-based fires (ethanol) at six percent.

Currently, FDNY has 11 Foam Carriers strategically placed around the City. They carry a total of 13,000 gallons of concentrate. Only two of the Foam Carriers (Engines 206 and 95) carry alcohol foam (1000 gallons each), capable of extinguishing an ethanol fire. With the future of ethanol much brighter, the Department also is moving toward the future by replacing any remaining fluoroprotein Foam Carriers with fluoropolydol concentrate to provide members with another weapon in FDNY's fire-fighting arsenal.



#### About the Author...

*Battalion Chief Steven San Filippo is a 27-year veteran of the FDNY. Currently, he is assigned to Operations as the Foam Manager. He recently participated in the West Point Counter-Terrorism leadership program. He is also a member of the Department's Incident Management Team that responded to New Orleans for Hurricane Katrina. These are his first articles for WNYF.*



be addressed. Garrison and Seneca Avenues form a large, empty block with plenty of room. Chief Butler instructed arriving units (engine companies carry three five-gallon cans of foam concentrate, while ladder companies carry two cans) to drop off their available foam concentrate at the staging area, where the Battalion 26 vehicle was used to deliver it to different sectors. Units went through these cans rapidly. This plan of supply and distribution was used until the fires in the Whittier and Longfellow Sectors subsided and the Incident Command Post was moved to Bruckner Boulevard at Whittier Street. This flexibility and improvisation assisted in efficient extinguishment operations.

#### Final thoughts

In my career, I have never been more impressed with a fire operation than I was at this event. Units arrived at a serious incident that was rapidly expanding and seriously deteriorating. Due solely to their capabilities, commitment and courage, this potential disaster was declared *Probably Will Hold* in one hour and four minutes after FDNY's arrival. Battalion Chiefs in charge of the sectors were nothing short of outstanding and units operating under their command were phenomenal. Thank you for a job well-done.

#### About the Author...

*Deputy Chief Kevin Butler is a 27-year veteran of the FDNY. He is the Division 6 Commander. Prior assignments include Engines 44 and 227 and Ladder 132 as a Firefighter; Engine 53 as a Lieutenant; Captain of Engine 53; and Battalion 26 as a Battalion Chief. He holds a BA degree from SUNY, Cortland, and a Masters degree from John Jay. This is his first article for WNYF.*

