

Case Study – Foster Food Enterprises – A Tale of Two Food Facilities

Problem

Ed Foster, the founder of Foster Food Enterprises, and his son James are meeting with a food defense consultant. They had done little to this point in time to develop food defense plans for the two food manufacturing plants they own and manage. They are interested in developing and implementing a standardized food defense plan for both facilities with the aim of preventing intentional contamination.

History of Foster Food Enterprises

In 1972, Ed Foster purchased a small ingredient company in south Philadelphia. Ed Foster had studied chemistry before his stint in the Army, and during service in Asia, he was exposed to the use of novel food grade gelling agents. Within a few years after purchase, Ed's company, FFC, began to produce this new gelling agent. Soon after introduction, the demand for these chemicals increased dramatically, primarily by beverage manufacturers who were looking for heat stable gels that would provide a shelf-stable 'cloud'. Then in 1990, Ed Foster decided to expand his company and his company began selling more ingredients to other beverage segments, including natural juice processors. He also developed a new product for confectionary manufacturers that would be used for making jellied candies.

For the fiscal year ending 2010, FFC sold 500,000 gallons of liquid cloud that went into more 10 million gallons of finished product sports drink. In addition, its fruit juice ingredient was sold to 3 different juice processors and its confectionary product was used by most of the major confectionary products that produced jelly bean-type products.

In 1999, Ed's eldest son, James, purchased a food plant with the aim of expanding the family's portfolio. This new facility, located in West Chester, PA, manufactured ready-to-eat soups and marinades. By 2005, the family's new facility, Culinary Express, had established itself as the dominate source of ready-to-eat soups for the foodservice industry in the northeast United States. In fact, Culinary Express sold 3 million serving units of ready-to-eat soup across the northeast.

PLANT 1 – FFC, Philadelphia, PA

FFC Facility

The FFC facility is comprised of a large processing building, one external building for maintenance and another for dry ingredient storage. The external grounds have an excess equipment storage area as well as a pallets storage area, both covered by an open shelter structure.

The FFC facility is located in a low income neighborhood in south Philadelphia. Over the years, the facility had erected many safeguards to prevent against theft, including a 10 foot barbed fence

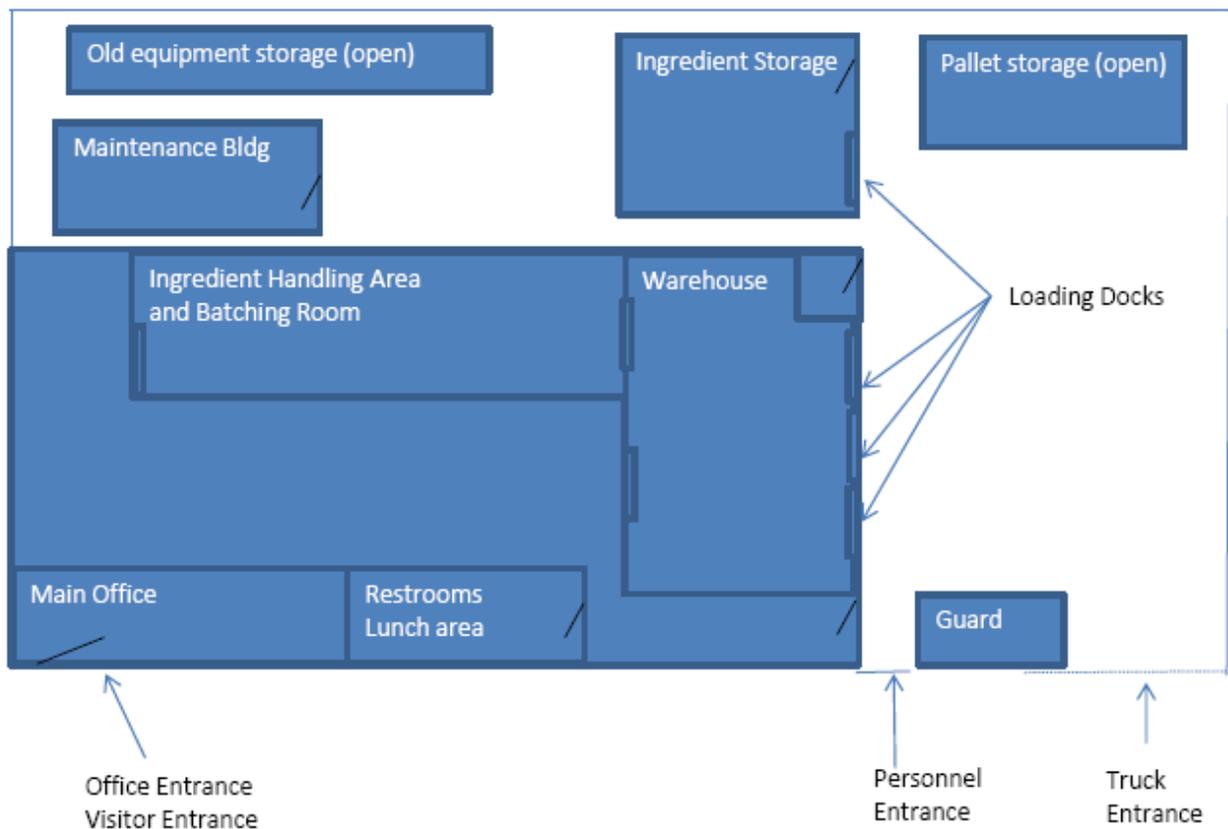
which surrounds the entire grounds. Windows are present in the buildings, but only on the sides that are behind fences, and these windows have thick wire mesh to prevent entry.

Employees park across the street and enter the plant through a guard-controlled access point in the gate. This guard also controls entry of tractor trailers delivering supplies and those used for distribution of finished product.

Once through the gate, employees swipe ID cards to enter the process facility. The maintenance building does not have this swipe requirement, but the dry ingredient storage area does. Cards are issued to employees upon hire, and are collected once they leave company employment.

Trucks entering the property are directed to the loading area. Truck drivers have their own special entrance that opens into a small room where the driver sits until it is time to load or unload. All deliveries and pick-ups are scheduled to prevent a back-up of vehicles in the fenced area.

There is a guard on duty from 7am to 11pm, which covers all active shifts of operation. There is no activity at the facility from 11pm until 7am, and an alarm is turned on in the event of forced entry.



Inside the plant, there are two main processing rooms, an ingredient handling area, and a finished product warehousing room. There is also a small office area in the front part of the processing facility that includes 3 rooms for the financial, operations, and logistics functions. Sales and executive management are located off site. Entrance into the office area from the plant requires a card swipe. In general, the office is considered off-limits for most employees. From the street, people entering the office area come into a small room and must wait there until they are released into the office area.

Cleaning chemicals are stored in the finished product warehouse in a locked cage. Maintenance personnel, quality control personnel, and operational personnel responsible for cleaning have access to this facility.

Plant 2 – Culinary Express, West Chester, PA

Culinary Express Facilities

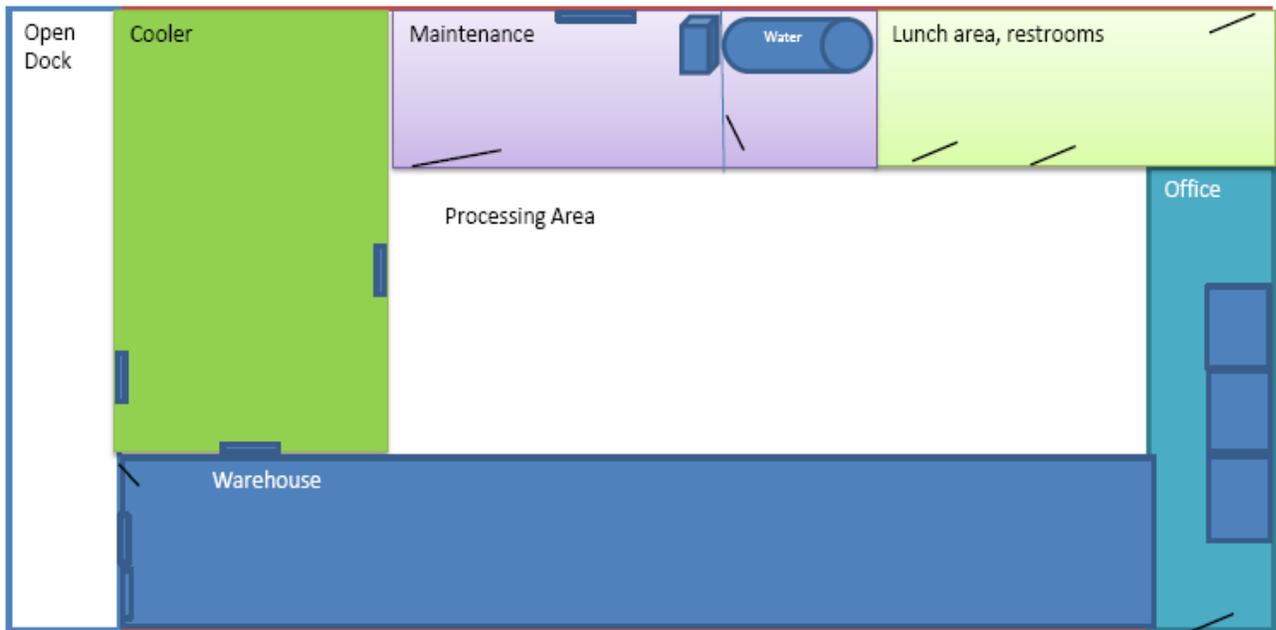
The Culinary Express facility was built in 1984 and is modern in design compared to the FFC facility. It is a single floor facility with no fences or outside storage buildings. There is an office entrance, an employee entrance, and an open, covered loading dock with 3 bay doors and one main door. There are a series of 24 inch-high windows located along the roofline of the 15 foot outside walls. The windows open from the bottom and have screens to prevent insect entry.

Within the facility, there is the front office, a large open production floor, a maintenance room, a warehouse with a large refrigerated cooler for raw and finished product, and a cafeteria with restrooms. Cleaning chemicals are stored in the maintenance room. Employees have access to most areas of the facility with the exception of the front office.

The building is located in a rural area, down a secluded road, two miles off of Route 202, a major highway that connects to Interstate 95. There are a few other facilities located on that road, but each is separated from one other by wooded plots of land. There is a large parking lot in back of the plant where the employees park and a loading area where tractor trailers and smaller refrigerated vehicles can back into the dock. Visitor parking is located in the front of the building along with parking for the front-office staff.

Employees enter the back door of the facility and there is a time card swipe which allows for entry into the facility, but there is no swipe for entry into the building. The office entrance, located in the front of the building, has a desk positioned on the inside of the door where an administrative assistant is often stationed.

The open loading dock is located on the east side of the building. Drivers back their trailers up to the dock and then wait on the covered dock until a warehouse person comes to assist them. Deliveries come at all times, from 4am until 12pm.



Exercise

1. Looking at the design of both facilities, if there was one contamination event, which facility could potentially result in the largest number of cases?
2. List the biggest 3 vulnerabilities you see in each facility design and list why you feel why each poses the biggest risk for that facility.