DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N309625260

FACILITY: General Chemical Corp.		**SRN / ID:** N3096
LOCATION: 12336 EMERSON DR, BRIGHTON		**DISTRICT:** Lansing
CITY: BRIGHTON		**COUNTY:** LIVINGSTON
CONTACT: Mehul Shah , CEO		**ACTIVITY DATE:** 05/21/2014
STAFF: Daniel McGeen	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Unannounced, scheduled inspection of facility last inspected by the Air Quality Division (AQD) on 5/1/2007.		
RESOLVED COMPLAINTS:		

On 5/21/2014, the Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted an unannounced, scheduled inspection of General Chemical Corp.'s Brighton plant. This facility was last inspected by AQD on 5/1/2007.

Environmental Contact:

Mehul Shah, CEO; 248-587-5600; mehul@generalchem.com

Facility description:

This facility stores, blends, and packages specialty chemicals. Their products include, but are not limited to, soldering fluxes, lubricants, cleaners, paint strippers, and water-based and solvent-based peelable/strippable coatings.

Regulatory overview:

The facility is classified as a minor source of criteria air pollutants. It has one existing air use permit, for a hydrochloric acid (HCl) tank, which a prior owner used, but the tank has long since been removed. They have a number of storage and mixing tanks onsite. In the previous AQD inspection report, Rule 290 was identified as being the relevant exemption for these tanks. However, Rule 284 appears to be a better match, and does not require monthly calculation of emissions.

Emission units:

Points 1-4, below, were identified in the previous AQD inspection report, dated 5/1/2007. The most appropriate exemption rule is identified for each point.

Point number (from prior AQD activity report of 5/1/2007)	Emission unit	Permit to Install, or relevant exemption	Operating status
1	Peelable coating mix tank	Rule 284(i)	Compliance
2	Hydrobromic acid tank, 5,000 gal, replacing old flux tank, 2,800 gal	Rule 284(i)	Compliance
3	Benzyl alcohol tank, 4,500 gal	Rule 284(i)	Compliance
4	Vanishing oil tank	Rule 284(c)	Compliance
NA	Benzyl alcohol mix tank, 4,500 gal	Rule 284(i)	Not operating, at time
NA	2 (two) 5,000 gal polytanks for mixing hydrobromic acid	Rule 284(i)	Not operating, at time
NA	Hydrochloric acid tank, 5,000 gal	779-91	Removed from plant years ago

Fee status:

This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is

not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The company is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is located in an industrial park. It is surrounded by industries on all sides. The nearest residences are roughly 2,000 feet to the south.

Recent history:

The previous company, Chem Bright, which owned this facility, closed some years ago. Chem Bright was in the business of packaging chemicals for swimming pools. General Chemical Corp. purchased this facility after it had been vacant for some time, and relocated their Detroit operation here. Because this is a very large industrial building, they have leased out some of their space to tenants, who use it for storage, but not for manufacturing.

Arrival:

I arrived at 1:04 PM. There were no visible emissions or odors detectable from the facility. Weather conditions were sunny, humid, and approximately 78 degrees F, with a breeze of about 5 miles per hour, out of the south southwest. I went to the lobby, and met with Mr. Mehul Shah, CEO of General Chemical. I explained that one of AQD's goals for inspections this fiscal year is to inspect facilities which AQD has not been to, in recent years. I provided him with a copy of the DEQ's "Environmental Inspections: Rights and Responsibilities" brochure, per AQD procedures.

Inspection:

A printout from the company's website, of their numerous product types, is attached to this report, for reference.

Point 1: Peelable coating mix tank; Rule 284(i)

A batch of a water-based peelable coating was about to be made in the peelable coatings tank, at the time of the inspection. The tank had just been cleaned, and a lid was lowered into place, to prevent any spillage. There were no visible emissions from this process. I was informed that no volatile materials are used in this coating, which emits no volatile organic compounds (VOCs). This can be considered exempt under the Rule 284(i) exemption for storage or transfer operations of noncarcinogenic liquids in a vessel that has a capacity of not more than 40,000 gallons where the contents have a true vapor pressure of not more than 1.5 psia at the actual storage conditions.

Their peelable coatings can be used to protect the walls of industrial spray paint booths from droplets of paint. They also have other uses, in automotive and aerospace industries.

A nearby mix tank, numbered 015, with a Cowles mixer, is inactive.

Point 2: Hydrobromic acid tank, 5,000 gal, replacing flux tank, 2,800 gal; Rule 284(i):

The current 5,000 gallon hydrobromic acid tank was fairly recently installed. It replaced an outdated 2,800 gallon flux tank, which had been identified as Point 2 in the 5/1/2007 inspection report.

We observed this new tank, which has secondary containment capable of holding up to 6,600 gallons of liquid, Mr. Shah explained. They plan to never put more than 3,200 gallons of liquid in the tank. The concrete of the containment system will soon be acid-proofed with a special coating, he added. There were no visible emissions or odors from the tank.

Mr. Shah advised I could do an Internet search on hydrobromic acid <48% to obtain a Material Safety Data Sheet (MSDS) for this material, and a printed copy is attached to this report for reference.

Point 3: Benzyl alcohol tank, 4,500 gal; Rule 284(i):

I was informed that benzyl alcohol is non-hazardous, and non-volatile. A pipe transports the contents of this tank to a mixing room within the plant, and prevents any spillage from handling. There were no visible emissions or odors from the tank.

Point 4: Vanishing oil tank; Rule 284(c):

Rule 284(c) exempts storage and transfer of lubricating, hydraulic, and thermal oils, as well as indirect heat transfer fluids.

Benzyl alcohol mix tank; Rule 284(i):

This green steel tank is about 4,500 gallons in capacity, and is used for mixing benzyl alcohol solutions. It was not in use, at the time of the inspection.

2 (two) 5,000 gal polytanks for mixing hydrobromic acid; Rule 284(i):

Two manila colored polygal tanks of 5,000 gallons capacity each are located in a mixing room, next to the benzyl achohol mix tank, above. They are used for mixing hydrobromic acid <48%, but were not running, at the time of the inspection.

Mr. Shah explained that the plant is built with secondary containment in mind, in the event of any spillage or leakage of chemicals. An employee, Dan, pointed out that the equipment and every room in the plant are diked. He also pointed out how the hydrobromic acid they use is far less corrosive than the HCl the previous owner of the site used.

HCl tank, and associated transfer, bottling, and exhaust equipment; Permit to Install No. 779-91:

When Chem Bright was the owner and operator of this plant, there had been a HCl tank, but Mr. Shah indicated that this tank was removed, years ago. They do not work with HCl, as they prefer to use ecologically friendlier chemicals. The air permit for the tank can now be voided.

Large XP (explosion proof) room:

This is one of two explosion proof rooms, in the facility. In this one, there are mixers of a 300 or a 400 gallon batch size for flammable materials. They package the products into 55 gallon drums, or 5 gallon plastic pails.

Small XP/silicone mix room:

This is a smaller explosion proof room that was used by Chem Bright. General Chemical built their larger XP room, discussed above, but they use this room for silicone mixing, as the room is free of dust. It is used rarely, maybe once every 3 months. They use water-based silicone materials here, rather than solvent-based.

Miscellaneous:

They have a "hot box" for heating materials. It is electrically heated, and is therefore exempt from needing an air use permit. They also have a Research and Development lab. Rule 283 exempts laboratory equipment.

Inside the plant, there are two large, square metal tanks, which were once used by Chem Bright. General Chemical Corp. has not found a use for these, as of yet.

A while back, they purchased some used industrial equipment, and are storing it inside the building. This includes a few small tanks, a powder blender with its own air filtration system, and a "mud blender." There are no plans to install or use this equipment, in the foreseeable future.

Conclusion:

Mr. Shah was very knowledgeable and helpful. I did not find any instances of non-compliance, or any areas of concern. On 5/28/2014, I e-mailed Ms. Sue Thelen of AQD's Permit Section, to request that PTI No. 779-91 be voided, and that a copy of the permit void letter be sent to Mr. Shah.

NAME [signature] DATE 6/3/2014 SUPERVISOR M. McC