HVAC/R • PROCESS COOLING • BUILDING AUTOMATION

TECHTALK

QUARTERLY NEWSLETTER
DECEMBER 2022 • VOL 15 • ISSUE 4

New NJDEP Refrigerant Reporting Rule Takes Effect

The new Refrigerant Reporting Rule issued by the NJDEP is officially underway as of October 1, 2022. The Nov. 1, 2022 registration deadline has passed, so those who haven't registered should do so as soon as possible to avoid penalties.

Does this rule pertain to my facility?

Your facility is subject to the new reporting regulations if you have one or more refrigeration systems (including A/C and chillers) with a full charge greater than or equal to 50 pounds of high-GWP refrigerant. Applicable rules can be viewed at N.J.A.C. 7:27E.

What is high-GWP refrigerant?

NJDEP considers any compound or blend of compounds with a 100-year global warming potential value equal to or greater than 150 to be a high-GWP refrigerant. It is important to note that this applies to most existing refrigerants and it is likely that your facility utilizes one or more of them. The full NJDEP list can be viewed here: High GWP Refrigerants and their 100 GWP Value

How do I determine full charge?

Full charge refers to the amount of refrigerant required in the circuit for normal operating conditions and is typically specified by the manufacturer on the equipment label. MSC can perform an equipment assessment at your facility to determine refrigerant type and full charge if you require assistance.

Where do I register and is there a fee?

Register your facility at NJDEPonline.com. There is a fee of $400 for a 5-year registration. Step-by-step registration instructions can be viewed here.

What information must be reported?

You are required to report high-GWP refrigerant usage for individual equipment or components during each reporting period, as well as any high-GWP refrigerants that were purchased, charged, recovered, shipped, or stored at/for the facility.

What is the reporting period?

The 2022 period runs from 10/1/22 to 12/31/22, and subsequent reporting periods will occur on a calendar year basis. The deadline for reporting refrigerant usage during the 2022 period is April 1, 2023.

For more information or to schedule an on-site refrigerant assessment of your facility's equipment, please contact MSC at (973) 884-5000.

41 South Jefferson Road
Whippany, New Jersey 07981

msc mechanicalservicecorporation

www.mscnj.com
973•884•5000

Cannabis Odor Mitigation: Some NJ Operators are Learning the Hard Way in Fast-Emerging Industry

As a populous state that's long been at the forefront of industry and agriculture and where air pollution and odor emissions are heavily regulated, New Jersey manufacturers, refineries, and other industries have a wealth of experience when it comes to controlling odors via various technologies and practices, and these odors generally occur in mostly-industrial areas. But now, with large indoor cannabis grow operations taking over repurposed buildings adjacent to residential neighborhoods, some communities are having to contend with offensive odors emanating from facilities that weren't properly equipped to handle them. By necessity, local governing authorities are adopting increasingly-stringent ordinances for cultivation facilities, and most municipalities require cultivators to submit and execute odor mitigation plans for approval to operate.

Cannabis odors, often described as pungent or "skunky", are largely attributed to a class of volatile organic compounds (VOCs) called terpenes. There are a number of odor mitigation technologies that have proven quite effective where indoor cannabis cultivation has been legally permitted for some time, and efficacy can often be improved when systems are used in tandem. The first line of defense in controlling odor emissions – no matter the industry – is having a sealed building with a well-designed HVAC system that can maintain negative pressure in designated spaces to force air through carbon filters before it can exit the building. Carbon filtration is the cannabis industry standard and is widely believed to be the best option for mitigating odors. At discharge, high-plume exhaust systems can be used to send the carbon-filtered air through high-velocity nozzles, propelling remaining odors high into the atmosphere where they are dispersed on wind currents. Another effective solution is bipolar ionization, which, in addition to neutralizing cannabis odors, can also help reduce mold growth and bacteria. Other emerging technologies currently being tested in the industry include mineral filters, biofilters, and carbon scrubbing.

For more information on these and other odor mitigation strategies, please contact MSC at (973) 884-5000.

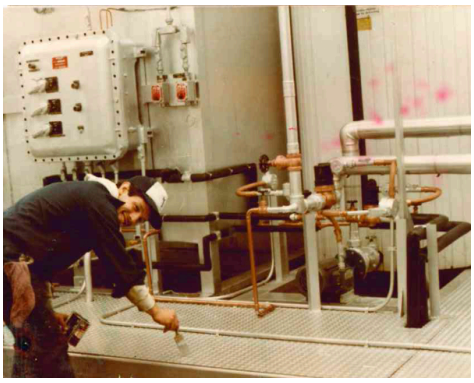
MSC HAS A NEW WEBSITE!

Visit us at www.mscnj.com for a detailed overview of our services, advanced capabilities, and expert team, as well as in-depth case studies, technical blogs, career opportunities, and more.

MSC Throwback: Vapor Recovery Unit Renovation Project

By **Pete McGrath**

The year was 1981, and MSC had been contracted to gut and refurbish several Edwards Engineering explosion-proof gasoline vapor recovery units. We were a fledgling company back then, founded just five years earlier by our present-day president Harry Hartigan, who can be seen in the top and bottom photos on the left. I'm the curly-haired young fellow in the center photo working on a new enclosure, and in the bottom photo, I'm on the right helping Harry guide a new control panel into place.



In the photo on the right, one of our technicians is painting the back deck of one of the vapor recovery units. The enclosure above him is awaiting installation of new explosion-proof bolts. The unit was a cascade refrigeration system utilizing R-502 refrigerant in the high stage and R-503 was used in the low stage to cool methylene chloride down to -100°F in order to condense the gasoline vapors. Both of these refrigerants were banned in 1995.

Working on vapor recovery units sometimes required open-flame brazing or welding while surrounded by tanks filled with millions of gallons of gasoline. The local fire department and the Coast Guard would be notified prior to any hot work, and a terminal manager equipped with an explosimeter would come out to the site to test the area for combustible gases before torches could be lit.

A number of the service techs from this era stayed with MSC for decades. Harry and I are both still here, and Mike Roberto retired just last year. Glenn Daniel, the son of longtime employee Kevin Daniel, followed in his father's career path and recently helped build a custom, tight-tolerance make-up air unit in our shop for one of MSC's largest clients.