CASE STUDY

Sentry™ Emergency Gas Scrubber (EGS)

Water Treatment Plant at
New Buffalo, Michigan

PureAiR
A cleanwater1™ Company

THE PROBLEM

In late 2011, The City of New Buffalo, Michigan, completed an expansion and upgrades to their existing 40-year-old Water Treatment Plant. Part of these upgrades included the addition of a third filter building to handle one million gallons per day, and with that, the requirement to add chlorine gas scrubbers to be on standby in the event of an emergency. PureAir's Sentry™ Emergency Gas Scrubber (EGS) and Safetysorb adsorbent media were chosen for the job. A few years later, the municipality found itself in the terrifying situation of a leak, and all were relieved that the Sentry™ EGS was onsite.

THE SOLUTION

The facility selected an EGS-150 emergency gas scrubber for its chlorine mitigation system. The 48-inch fiberglass-reinforced plastic vessel was paired with a two-horsepower blower, providing the airflow capacity required for rapid response. A capacity assessment of the Safetysorb media indicated that 50 ft³ of it would be sufficient to neutralize the maximum potential chlorine release.

This assessment was validated during an actual emergency event. When a leak occurred, the standby scrubber activated immediately, drawing in the chlorine-laden air from the building and directing it through the EGS-150 unit. The system performed exactly as designed—neutralizing the contaminated air and discharging clean air back into the environment. The scrubber effectively contained the incident until maintenance teams resolved the leak, preventing harm to personnel and eliminating any environmental impact.