

CASE STUDY

PurePak™ Module

National Archives Museum
Washington, D.C.



THE PROBLEM

The National Archives Museum in Washington, D.C. conducted an environmental assessment to identify harmful gases that could potentially damage its artifacts. The findings revealed nitrogen dioxide (NO₂) and sulfur dioxide (SO₂) as the primary concerns, with levels reaching up to 22.21 ppb and 1.68 ppb respectively. Over time, these gas concentrations could cause irreversible damage to the museum's valuable collections.

The client, well-versed in gas-phase filtration technology, selected three companies to participate in a study to determine which chemisorbant media was most effective at removing the damaging gases with the winner gaining the museum's business.



THE SOLUTION

PureAir's PP Blend chemisorbant media, was evaluated in a blinded third-party test against two competing products. In the study, each company's media was placed inside a separate air handling unit (AHU) and the initial gas levels of the environment were measured. After one month of air filtration through each AHU and media, gas levels were measured again to assess performance.

PureAir's media outperformed its competitors reducing NO₂ level in its environment by 50% from 2.2 to 1.1 ppb. The closest competitor achieved only a 33% reduction from its initial reading. Impressed by these results, the museum selected PureAir for the project and installed PurePak™18 Modules filled with PP Blend media.

The museum continues to rely on this solution today.