

Inspection & Structural Repairs in Cement Kiln Baghouse – Restores Operating & Environmental Performance

Challenge

Meeting emissions regulations is an ongoing challenge. Recently, a cement plant's owner came to us due to struggles with performance of their Kiln Baghouse's Reverse-Air system.

While static pressure is a normal part of a dust collector system, greater resistance means reduced suction and less debris being removed. This baghouse was experiencing outlet emissions beyond their limit.

Fluorescent dye tests and black light inspections are excellent tools for initial identification of broken bags or leaks. After Micronics did an initial assessment, a thorough, systemic baghouse inspection was warranted.



Reverse-Air Kiln Baghouse

Solution

Compromised filter bags are not always the issue in a baghouse experiencing performance issues such as in this cement plant baghouse. After Micronics' fluorescent dye test and black light inspection did not turn up any filter bags needing replacement, we proceeded to do a comprehensive baghouse inspection.

Our complete inspection revealed structural integrity issues. Broken expansion joints and ductwork defects were found after the baghouse, but before the outlet stack. These structural issues were the point of entry for fugitive dust being registered at the stack emission monitor. Fugitive dust is an environmental air quality term for very small particles suspended in the air, primarily mineral dust.

Breaches in the critical airtight integrity of the structure – such as identified in this kiln reverse-air baghouse - can lead to premature bag failure, operational shortfalls, dust emissions, and costly fines. With regular inspections and repairs performed by qualified personnel, any major structural issues can be addressed before deterioration in performance becomes severe or an excursion occurs.

After our team identified the structural integrity issues in this kiln baghouse, we made the necessary structural repairs and desirable baghouse performance was restored, including the avoidance of penalties from non-compliance.

You can trust the Micronics team for a full complement of baghouse inspection, maintenance, and repair services. Contact us to learn more.



Expansion Joint Leakage