

SUMMARY

A major tobacco manufacturer in North Carolina has, for many years, used Auburn's single point broken bag detectors to monitor their many dust collectors. Most of the collectors operate indoors and any fugitive emissions can quickly cause serious problems for plant personnel. Recognizing the need for more sophisticated monitoring technology, operators decided to significantly upgrade the operation by installing an Auburn PC based networked system, resulting in less disruptive, timelier, maintenance scheduling and overall collector performance was dramatically improved.

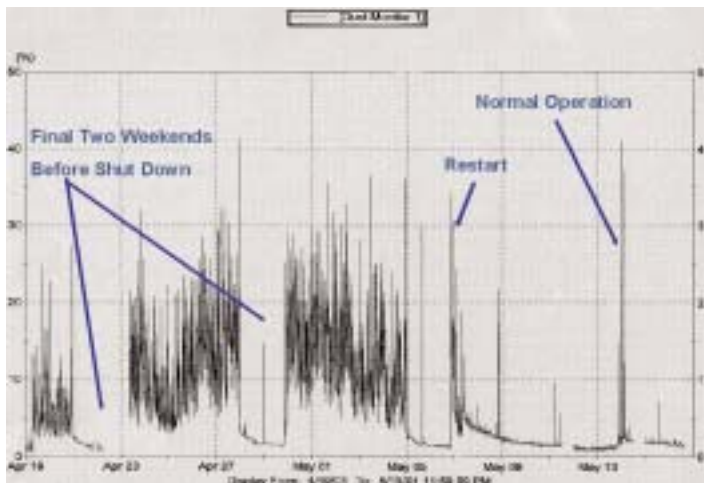


Background

Tobacco processing is an inherently dusty business; many tobacco processing stages, from start to finish, generate tons of fine particles and highly efficient dust collector maintenance procedures are needed to minimize product loss, labor costs and the presence of fine particle within the plant, an obvious health hazard.

Problem

One processing area contained six in-plant dust collectors: three Maker/Feeder collectors and three Process collectors, all equipped with Auburn single point broken bag detectors. However, the operators realized single point detection would not provide sufficient dust collector information, such as, individual collector emissions trend history and early warning failure prediction analysis data; necessary for more effective collector maintenance scheduling, especially critical in this case since the collectors are located within the plant.



Bag change out data

Our Solution

It was decided to replace the original equipment and to Install, in its place, an advanced, PC based TRIBO.link bag leak detector system with imbedded software capable of providing performance trend analysis and developing trouble spot identification.

Results

After commissioning the six collector network monitoring system and monitoring each collector's emissions trends, it became immediately apparent that one of the six collectors was emitting more dust than the other five. A decision was made to schedule a bag changeout during a regularly scheduled weekend shutdown, avoiding costly unscheduled plant shutdown caused by an unpredicted massive filter failure. After the changeout, emission levels returned to normal, and the new data from each of the six collectors was used to establish emissions level warning and alarm protocols for each individual collector. The ability to continuously monitor collector performance and events has all but eliminated the need for emergency shutdowns and major clean ups, while improving maintenance efficiency and reducing unneeded labor costs, and ensuring a high standard of in-plant air quality.

Conclusion

Auburn equipment provided an immediate pay back on their investment. Since the initial bag change out, operators are using the system to observe the overall quality of the bags in each of the six baghouses. The system assures that these collectors are operating as intended by providing: extended bag life, reduced product loss, more efficient maintenance scheduling and a healthier plant environment.

