Infrared Beam Technology Being Put to Use at NIPA Hardwicke Inc.

NIPA Hardwicke has brought the latest in emissions/odor detection technology to its plant with the installation of the FTIR ("fourier transform infrared" spectrometer).

The FTIR draws on modern laser technology to detect odor-causing organic compounds with an infrared light beam. Once every 5 minutes, the FTIR system transmits an infrared light beam from a telescope transmitter. The beam then passes through the atmosphere along NIPA Hardwicke's fence lines to two separate reflectors. The reflectors reflect the infrared light beam back to the telescope transmitter.

The FTIR then analyzes the portions of the infrared light spectrum that have been absorbed by organic compounds in its path. With this information, the FTIR can determine the type and amount of organic vapors at NIPA Hardwicke's fence line.

"Now we have real time, accurate measurements of fence line emissions. That hard data helps give our neighbors confidence that we are protecting our community."

-Jeff Batson, NIPA Hardwicke manager of environmental affairs

The FTIR was developed from existing military technology and has been in operation at NIPA Hardwicke for approximately a year. At last count, Hardwicke was the only industrial plant east of the Mississippi River to invest in this advanced odor reducing technology.

Before the FTIR was installed, NIPA Hardwicke estimated its fence line emissions based on engineering calculations. According to Jeff Batson, manager of environmental affairs, that concerned some of NIPA Hardwicke's neighbors. Batson explains that "now we have real time, accurate measurements of fence line emissions. That hard data helps give our neighbors confidence that we are protecting our community."

If organic vapors are detected, NIPA Hardwicke immediately traces the substance back to its source and works to reduce the emission. According to Dennis Weatherford, vice president of plant services, "The great advantage of the FTIR is that when we know what's at the fence line, we can quickly find the source and correct potential odor problems before they start."

"We are especially excited about the FTIR technology (see article p. 1) which allows us to detect potential odors at our fence line with an infrared light beam. While this technology is newly arrived, it has the potential to revolutionize the way manufacturers keep odors and other vapors from reaching their neighbors."

Charles Marble, plant manager

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Another addition to our safety program is the implementation of the plant's Safety Committees (see article p. 4). Members of the Safety Committees take their jobs very seriously, and I thank each and every one of them for their hard work.

While safety is not a popularity contest, another of our concerns is employee relations. Our link between employee and management, the "A-OK" program, is a major factor in helping to promote employee retention. The program is a two-way street and the company is committed to making the safety program a success.

Excerpts from the NIPA Hardwicke Community Connections Newsletter