

MCS D goes green with wood pellets

ANDY GARDNER

The Telegram

The Malone Central School District recently installed two new wood pellet burning boilers at the Malone Middle School, replacing three oil-fired boilers from 1968.

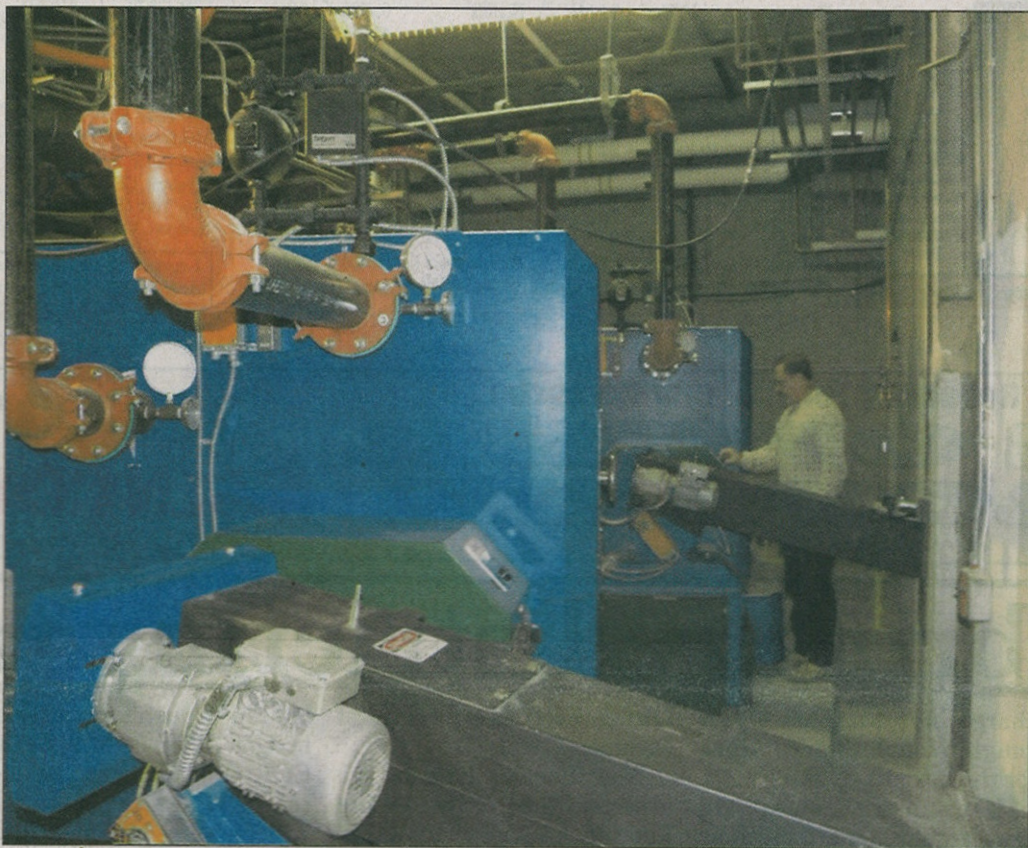
"What these boilers represent is more efficient two-stage combustion that burns pellets more completely so you get more heat out of them and it also reduces emissions," said Thomas Kenney of CS Arch, who designed the system.

The combustion process leaves behind only a small amount of ash and keeps harmful particulate matter from going into the atmosphere.

Superintendent of Buildings and Grounds David Brooks said this is why smoke won't be visible coming from the school's chimneys. He also pointed out that because of built-in emission controls, the school did not have to add anything to the boiler emission or ventilation system.

The school did not have to spend money on an exterior building or renovations to house the wood pellets or boilers. Instead, they refurbished the old coal room into pellet storage.

The room is outfitted with a ventilation system to keep dust to a minimum to prevent an explosion. The room is also outfitted



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(Above) Malone Middle School Superintendent of Buildings and Grounds David Brooks mans the controls of the new wood pellet-fired boilers that now heat the school. They are environmentally-friendly and will save the school between \$45,000 and \$69,000 on its annual energy bill. (Right) CS Arch Construction Manager Thomas Kinney shows the pellets that will fire the new boilers. In the background is the new pellet storage room that used to store coal. It is outfitted with explosion-proof lighting, sprinklers and ventilation.



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with explosion-proof lights and a sprinkler system.

It was fitted so tractor trailers can dump their loads directly in and then they can be fed by an auger to the furnace. According to a Malone Central School District news release, this saved the district about \$400,000.

"The idea was use space in the building and not do anything to the outside and protect the image of the building to the neighborhood," Kenney said.

According to the release, moving away from a system that is primarily fed by fuel oil will save the district between \$45,000 and \$60,000 annually, based on a cost of

\$3.25 per gallon.

Brooks said the new pellet storage holds about 22 tons of pellets at a time, which can feed the boilers for between one and two weeks, depending on the temperature outdoors. They pay \$185 dollars per ton of pellets, according to Curran Logging.

Also installed with the pellet stoves was a new backup fuel oil furnace, but it only runs as part of an active redundancy program or as a failsafe. The furnace is also fitted to run on natural gas, if and when Malone gets it.

Active redundancy means that the furnaces run most efficiently by switching between the three. Also, the school benefits from this

system should the price of fuel oil dip below the price of wood pellets.

The new heating system was made possible by a \$288,750 grant from the New York State Energy and Research Development Agency that came in March 2010 from the American Recovery and Reinvestment Act (ARRA).

Malone Central School District Business Administrator Timothy Whipple said in a news release that the school contributed \$96,250 to the project. This means with the money the district will save on its energy bill as a result of the upgrade, the investment will pay for itself in two years.

• agardner@mtelegram.com