



UNDER THE HOOD

Looks count but not as much as what's inside when it comes to providing reliable, safe and quiet water treatment in the midst of a neighbourhood



Photo Credits: R. E. Poisson Engineering

By Theresa Rogers

IT LOOKS LIKE A BRAND NEW GARAGE but there's no car behind the black wrought iron fence and stone veneer. In fact, passersby would never guess what is actually inside the building.



That's the idea says Robert Poisson, President, R. E. Poisson Engineering. His company performed the project management, facility and process design, equipment layout and specification, tendering, construction management, and start-up and commissioning of upgrades to the Campbellville Well House in Halton Region, about 64 km west of Toronto. Transforming the well house from its former drab, utilitarian look with chain-link fence, was just one part of the job.

Located in the middle of a quiet, leafy neighbourhood, with the property line less than five metres away, noise was often an issue. A new, upgraded electrical room was built and the noisy backup generator was moved from a trailer outside, into the building. The well house was designed to minimize the sound impact on surrounding neighbours.

Engineers chose to use the most stringent noise regulations, limiting noise at the property line to 50 dB(A).

FACTS

- + Approximately \$100,000 was shaved from the budget by reusing surplus equipment from another well house.
- + The system was shut down and put on bypass three times during the project. A tanker truck supplied the water during these outages.



Significant noise reduction measures were required to achieve the limits. A two-stage noise reduction system was deployed including acoustic louvers and acoustic duct silencers on the intake and outlet ducts used to keep the generator cool while in operation. The generator exhaust includes a dual-stage silencer.

Poisson says there were challenges with the upgrades because of the location on a tight, pie-shaped lot with neighbours on either side. "The system also had to stay online while we were doing the upgrades," he says. Some existing infrastructure was also removed, including an underground chlorine contact tank that was sitting where the new building was to be located.

"There were three shutdowns overall where we had to provide water and keep the system pressurized while we did connections," says Poisson.

"There was a lot of coordination but never a case where there was not water being supplied."

For cost-effective project management, surplus equipment from another upgraded well house was evaluated. A motor control centre, a couple of variable frequency drives and the generator were all sourced from the surplus supplies and deemed suitable for use in Campbellville. Poisson says the equipment was less than 10 years old and saved the project about \$100,000. He expects the equipment to last its 20-year design life, especially the generator which is on emergency standby and not in use 24/7.

Poisson says his six-member firm was excited to win an award and be able to contribute to the region's improved economic and environmental quality of life. "We try hard so it's nice to get recognized."

Proud to be the signature partner providing valuable legal services to members of Consulting Engineers of Ontario.

fogler
rubinoff

At Fogler, Rubinoff LLP, we believe experience and sound judgment earn it.

Client relationships are built on it.

Results keep it.

Lawyers
77 King Street West
Suite 3000, TD Centre North
Tower
Toronto, ON M5K 1G8

Tel: 416.864.9700
Fax: 416.941.8852

VISIT US AT FOGLERS.COM