



L&J engineering
evolving at every level

Case Study
Puerto Rico—Power Plant



Photos represent typical installation of the MCG 2420 Transmitter and 92302 Liquid Level Indicator and are not from the Puerto Rico power plant.

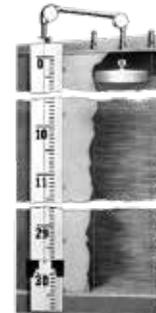


Convert Mechanical Levels to Digital & Streamline Your Tank Data Process!

When the largest power plant in Puerto Rico needed a quick reliable way to monitor their new condensed water tank levels, they turned to L&J Technologies. This 32-foot-high water tank contains desalinated ocean water that is converted to steam which runs the turbine to generate power. The used water vapor then runs through a condenser to recapture the desalinated water back into the tank. There is very little loss of water during this process which requires constant monitoring to make sure what is lost is replaced without overflowing the tank. For this reason, L&J Technologies suggested coupling the L&J engineering MCG 2420 Transmitter to a stainless steel Shand & Jurs 92302 Liquid Level Indicator

to access the tank levels immediately while having a reliable easily visible level indicator on the tank.

The Shand & Jurs 92302 Liquid Level Indicator gauge board is a float actuated level gauging system commonly used in applications that are low-pressure or no pressure. It is designed to provide a reliable and virtually trouble-free service, but would require visual inspection of the tank whenever you need an updated level reading. The MCG 2420 Transmitter reduced the need to inspect the storage tank for an updated reading by mounting it to the inboard pulley location. They simply attached the tape to the pulley inside the sheave by aligning the holes in the tape with the pulley teeth.



Location: **Puerto Rico**

Products: **MCG 2420 Transmitter**
92302 Liquid Level Indicator

Benefits:

- Ultra Low Power
- Absolute Magnetic Encoding for Level Detection
- Advanced Flash Memory Technology
- Low cost and simple installation
- Converts mechanical level measurements into electronic
- Installed in bulk liquid storage vessels for the Petroleum, Petrochemical, Chemical, Pharmaceutical, Food & Beverage, and Water Treatment Industries



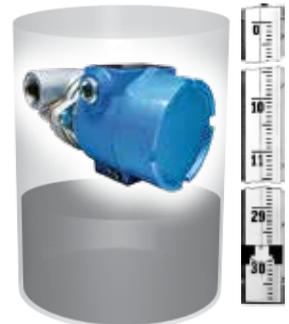
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After the easy installation and calibration, the MCG 2420 Transmitter instantly produced an output signal proportional to the level measured by the shaft encoder. The tank level information was instantly available on demand once it was configured into their control room DCS system using the HART communication standard. The level measurements were delivered digitally using L&J engineering's absolute magnetic encoding technology via a 2-wire loop. The digital level accuracy from the transmitter is 1/32 inch which is standard for up to 85 feet of product. There was no need to worry about power failures either since the MCG 2420 is completely unaffected by the loss of power without the use of

batteries. The fully mechanical liquid level indicator offers an inexpensive redundant level monitor which maintains calibration if they lose power but when power is restored the transmitter accurately reflects the current level, even if it has changed, without the need for additional calibration.

They were extremely happy with the immediate performance of the system. They are looking to add another tank at this facility as well as implement it at another facility further south.

System Layout



Tanks with MCG 2420 Transmitter and 92302 Liquid Level Indicator

DCR in Control Room