ELECTRIC LIGHT & POWER

Progress Energy Automates Callouts, Maintains Plant Efficiency

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Until recently, supervisors at one of the largest U.S. power generation sites felt like they were playing the callout lottery.

Progress Energy's Crystal River (Fla.) Energy Complex covers 4,700 acres with four coal-fired steam units, two coal yards and scrubber operations. When resources had to be allocated for repairs, supervisors waited up to two hours per callout to determine which of the complex's 351 employees would accept the callout. Callouts are a routine part of plant operations, but efficiency often gets overlooked.

The callouts at Crystal River evolved from years of negotiated bargaining unit agreements. The work force pacts ensured employees were called in relation to their overtime, seniority and availability. The process worked, but supervisors did it all manually. They determined availability, developed their callout lists and picked up their phones and dialed. It was time-consuming, antiquated, and it impeded supervisors' ability to oversee normal unit operations. In addition, the manual callout did not support properly the site's priorities: focusing on safety first, preventing equipment failure and avoiding unit trips.

The manual callout issues at Crystal River were magnified because of difficulty in quickly reaching many employees across a large area. Work force agreements dictated the order in which employees must be called, adding to the problems. In January 2010, Crystal River implemented a software platform to automate callout and resource management. Launched in August 2010, the automated system by Arcos Inc. cut the average callout response time at Crystal River from about two hours to less than 30 minutes. The Internet-based system automatically assembles a callout list, contacts employees and accounts for every employee's availability based on requirements of bargaining unit agreements. Crystal River also uses the system to fill vacant shifts and poll for and fill potential work.

As a result, supervisors have more time to oversee the work of generating power and improving Crystal River's safety performance. Progress Energy and the platform provider can program the software to follow bargaining unit agreements that dictate the order of work, automate the callout lineup and track responses. The new process provides consistency for all site supervisors, shifts and employees.

Any plant, regardless of fuel source (i.e., gas, oil or nuclear), can automate callout, but the number of employees required to operate and maintain the plant must be considered.

For example, a 30-person combined-cycle plant generating 150 MW has different emergent callout demands than Crystal River's 2,400-MW complex employing more than 350 people.

To make a case for automated callout, utility professionals should gain buy-in from management and the bargaining unit and consider a plant's relationship with its employees and bargaining unit. The best approach to build a business case for callout automation is with data gathered, for example, by measuring the duration of the existing callout process and determining existing bargaining unit callout requirements to determine the variance, if any.

Initiating a callout used to take hours at Crystal River, but now it happens in three to five minutes. If a site's callout process averages 30 minutes, automating the process could give supervisors back as many as 27 minutes per callout to focus on other work.

Although rare, a lengthy callout process could force a unit shutdown and trigger the start-up of a more costly unit to meet customer demand.

Preventing these types of forced derates are as important as searching for efficiencies. ELP

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