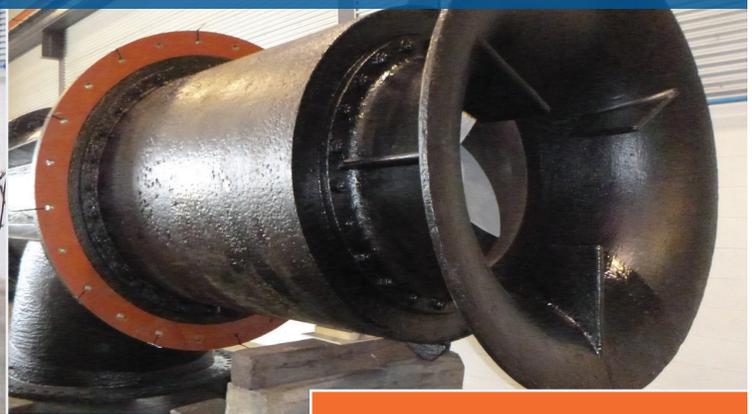


## Timely Intervention Saved a Critical Pump from Serious Harm



**BEFORE**



**AFTER**

### Pump Specs

- Flow rate: 70,000 GPM (gallons per minute)
- Discharge size: 60"
- Weight: 32,000 lbs.
- Length: 20 ft.
- Horsepower: 500
- RPM: 355

*A Michigan power plant had to act fast before facing imminent pump failure. A quick call to Kennedy Industries immediately got the wheels in motion for fast and lasting repair.*

### PROBLEM:

The power plant recently reported loud noises coming from one of their main condenser circulating water pumps. Kennedy Industries dispatched a field service engineer who promptly diagnosed extreme bearing wear, which caused the impeller to travel off its rotational centerline. Further investigation revealed that the pump had last been overhauled by Kennedy 18 years ago, far exceeding the recommended service interval. Facing a costly derate, the plant quickly removed the pump and Kennedy transported it to their repair facility for emergency disassembly, cleaning, and evaluation.

### SOLUTION:

After completely dismantling the pump, all components were glass bead blasted and precision inspected. Kennedy also performed non-destructive testing, shaft run-out checks, and concentricity inspection on critical fits. We found that the major wear points were the pump shaft, bearings, sleeves, and impeller vane tips. Welding, machining processes, and component manufacturing were then initiated on an overtime basis. A ceramic coating was added to the impeller to resist erosion and improve efficiency. After impeller balancing, final cleaning, and quality control inspection were performed, the pump was reassembled in our 100,000 sq. ft facility with all new hardware.

*Despite coordinating and executing a long list of simultaneous processes, Kennedy returned the finished pump to the plant just 12 days after receiving it, and placed it back on-line for hopefully many more years to come.*

