

GREEN FOUNDRY CASE STUDIES

WATER

Eliminating the Generation and Discharge of Non-Contact Cooling Water



Description

The facility installed closed-loop cooling water equipment to reduce, or in some cases eliminate, the need to discharge cooling water. Previously, water for machine cooling was used once and then discharged. Now, it is processed through a series of pump skids and cooling towers to reduce the temperature and recirculate the water so that it can be reused over and over for non-contact cooling purposes.

Environmental Benefits

- The facility's historical average water usage of 0.75 MGD (millions of gallons per day) is now recovered and recirculated to plant equipment.
- The project resulted in a 30–95% reduction in cooling water use dependent upon seasonal cooling demands. Elimination of discharges in some cases.

Other Benefits

- Reduction of water usage.
- Strengthened business continuity and simplified regulatory permitting due to reduced water dependence.

Applicability

Recirculation of cooling water is an improvement available to any other facility (foundry or otherwise) that is currently using cooling water for a single use followed by discharging.