



Idaho Department of Environmental Quality Pollution Prevention Champion

AMI Semiconductor, Inc.

Pocatello, Idaho

2006

Environmental Commitment

Environmental protection is a key element of the AMI Semiconductor (AMIS) corporate culture. Teamwork, the empowerment of individuals, and a focus on continuous improvement help AMIS maintain high standards of environmental, health, and safety practices.

Pollution Prevention Success

Water Conservation

AMIS is located in drought-prone eastern Idaho. Since 1998, AMIS has reduced water use by 41% (more than 88 million gallons a year) by improving and modifying existing systems. Conservation efforts have included:

- Reconfiguring a closed-loop process cooling water system to reuse water to cool additional production tools, saving 1.3 million gallons of water per month.
- Optimizing a deionized water system to increase system efficiency and decrease the amount of water recirculated before use, saving 1.2 million gallons of water and conserving 954,000 kilowatt hour (kWh) of electricity per month.
- Increasing cooling water use from 4 to 10 cycles, extending the time for cooling tower recharge and decreasing labor costs.

Chemical Reduction

AMIS has undertaken several projects to reduce the use of chemicals in its facility. Projects have included:

- Implementing new chemistry combinations in the cooling tower water, reducing chemical costs by almost \$60,000 per year.
- Changing the process for neutralizing sulfuric acid, thereby reducing ammonia used for pH adjustments from 3.2 to 0.97 tons per month.
- Reusing sulfuric acid to adjust the pH in cooling towers, thereby reducing the purchase of new chemical for this use.

Energy Conservation

AMIS has reduced annual energy consumption by 3.5 million kWh and saved \$94,000. Projects have included:

- Installing gas flow meters to improve tracking and identify conservation opportunities.
- Shutting down idle production tools.
- Installing a heat exchange system to use incoming city water as a free cooling source. Resulted in removal of a 50-ton load from chillers, with an annual energy savings of 350,000 kWh and \$14,000 in cost savings.

- Installing variable frequency drives on several pump systems and air handlers. Many motor-driven devices operate at full speed even if the loads they are serving are below capacity. Variable frequency drives conserve energy by adjusting the speed of the electric motor to match the load.

Lead by Example

AMIS established an Environmental Management System in 2001 and received certification under ISO 14001 in 2004.

For More Information

Contact Staci O'Connell at (208) 234-6028.

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