



CHEMICAL EMERGENCY PREVENTION & PLANNING

Newsletter



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US EPA Region 10

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CHEMICAL EMERGENCY PREVENTION & PLANNING Newsletter

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R10 RMP Webpage

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Best Practices from the Field

During RMP training and inspections we meet talented people with innovative ideas. Tim Viehweg, President, IdaCold LLC in Nampa, Idaho told us how his warehouse upgrades save energy and money. To adopt this best practice in your facility, see the following article by the Energy Smart team at Bonneville Power.

Refrigerated Warehouse Upgrades at IdaCold LLC Save 2M kWh Annually

This is a best practice with a significant payoff as we learned from Tim Viehweg, President of IdaCold LLC. “Whenever I’m looking at any improvements to the plant, I always explore if there is any way we can improve energy efficiencies. The piping insulation, freezer doors, warehouse lighting and refrigeration upgrades were all items that needed to be addressed. By identifying the energy savings of the upgrades, I was able to qualify them for the Idaho Power Custom Energy Efficiency Program.”

For Tim Viehweg the program paid off in three ways, “[It] allowed me to get facility improvements completed, obtain financial incentives for completing the improvements and receive long term energy savings from the investment. We currently run around 500,000 kWh per month and these measures are saving us 2,000,000 kWh annually. So you can see the benefit is significant, about four months’ worth of power usage reduction annually.”

For IdaCold LLC the utility incentives and the savings from reduced energy use brought the effective payback down to less than two years on average. The details are in Table 1 (*page 2*).

Evaporator Fan VFD’s: More capacity without using more energy

In 1999, Idaho Power Company asked IdaCold LLC to participate in a test project utilizing VFD’s on evaporator fans. At the time IdaCold was preparing to add 1,000,000 cubic feet of freezer to its existing 1,500,000 cubic feet of refrigerated warehouse. Cascade Energy Engineering (an engineering firm working with the utility) completed an energy audit. This study help make the decision to proceed with the proposed upgrade. The audit identified potential additional savings using VFD drives on condenser fan motors. Although not covered by the initial project proposal, the potential benefit warranted making the investment.

The 66% freezer addition coincided with the VFD installation and IdaCold noticed no increased power consumption overall.

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REPORT

CHEMICAL or OIL SPILLS
to the NATIONAL RESPONSE CENTER

1-800-424-8802

Refrigerated Warehouse Upgrades at IdaCold LLC Save 2M kWh Annually
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Piping Insulation Upgrades: More savings

Phase I of IdaCold was built in 1995 and by 2008 the refrigeration piping insulation was losing insulation value and icing up. This was the result of a both a poor job installing the insulation and using an inadequate amount. Another engineer's study showed significant energy savings using heavier insulation. This qualified the project for incentives under Idaho Power's Custom Energy Efficiency Program.

Freezer Door Replacement: Another equipment and energy savings payoff

IdaCold used high speed, metal skinned, insulated freezer doors, the industry standard. These doors provide good insulation, but the lift trucks easily damage them. Once distorted, they do not seal properly. Repeated damage can destroy the door. And the usual alternative, high speed roll up doors, provide little insulation value.

An Idaho supplier developed a flexible and resilient replacement door, and installed a sample door at IdaCold. After a 90-day trial, IdaCold replaced all freezer doors with Flex Panel doors. The power company qualified the replacement doors

for incentives under their Custom Energy Efficiency Program because they provided insulation value and maintained their integrity after being hit repeatedly by lift trucks.

Warehouse Lighting Upgrades: Cooler fluorescents mean more light and less heat

In 2010, IdaCold worked with a local lighting manufacturer to replace all warehouse lights with motion controlled, energy efficient fluorescent lights. Not only did the new fixtures greatly improve the lighting in the freezers, the new fluorescents produced less heat compared to the old fixtures, lowering refrigeration costs. The power company's Custom Energy Efficiency Program covered this project. The light manufacturer invoiced the power company directly, received the incentive rebate, and billed IdaCold for the difference.

Refrigeration Upgrades: Reduced power needs during times of peak power demand

In December 2010 IdaCold completed their largest energy efficiency project. For this project Idaho Power Company covered nearly half the cost of an energy audit which detailed costs and benefits for energy saving recommendations. The audit provided hard numbers for Idaho Power so they can confidently offer financial incentives to IdaCold.

When the project is complete, the engineering firm then verifies energy savings and submits a final report to the power company. Then IdaCold gets their financial incentive check.

2010 Upgrades:

- Frick Refrigeration Control System.
- Installation of new, oversized condenser with VFD.
- Installation of VFD on the 400 HP compressor.
- Purchase of oversized evaporator coils for freezer expansion.

Mr. Viehweg said there are other benefits as well, "... we also participate with the power company in a program during peak load months in which we shut down the facility during high demand times. Because our facility is newer and well insulated the impact is insignificant. This allows them to reduce power consumption during high demand. They provide some financial incentive for us to participate in this program."

Increased operating efficiency produced another benefit as well, IdaCold reduced their inventory of anhydrous ammonia. Reducing toxic inventory is a major goal of the Clean Air Act Risk Management Program (RMP), because it reduces the potential size of a hazardous chemical release.

For more information contact: Tim Viehweg (tviehweg@idacold.com)

Table 1. IdaCold LLC Energy Efficiency Upgrades

	Evaporator Fan VFD's	Piping Insulation Upgrades	Freezer Door Replacement	Warehouse Lighting Upgrade	Refrigeration Upgrades	Totals
Year	2000	2008	2009	2010	2010	
Annual Energy Savings (kWh)	518,202	332,600	129,305	348,492	1,185,675	2,514,274
Financial Incentive (% of Total Cost paid by utility)	72.5%	67.6%	45.6%	70.0%	62.4%	
Payback Period (years)	1.4	1.3	2.9	1.1	2.2	

MSDS to SDS – OSHA to Revise Hazard Communication Standard

OSHA announced that it will make significant changes in the hazard communication standard as it adopts significant elements of the globally harmonized system (GHS) for the classification and labeling of hazardous chemicals. The rule is expected to be published in its final form in August of this year. It is likely that employers will be given a phase-in period.

This means that virtually every product label, MSDS, soon to be called “safety data sheets” (SDS), and written hazard communication plan will need to be revised to meet the new standard. Worker training will need to be updated so that workers can recognize and understand the symbols and pictograms on the new labels as well as the new hazard statements and precautions on SDSs.

For more information: [OSHA](#)

Best Practices from the Field

Get Energy Smart in the Industrial Sector

Few topics in the industrial sector cut through to the bottom line like energy use and sustainability. Companies large and small recognize that implementing energy-efficient practices at their facilities is about more than being a responsible energy consumer – it also saves money, boosts productivity, and ensures the long-term viability of the business.

To help companies in the Northwest move toward more energy-efficient operations, Bonneville Power Administration (BPA) launched the Energy Smart Industrial (ESI) program, a comprehensive energy-saving program for the industrial sector. The ESI program offers no-cost energy-use consultations with industrial experts as well as providing financial incentives through local public utilities. ESI offers incentives of \$0.25 per kWh of verified annual energy savings which can offset up to 70% of the total associated project cost; significantly reducing the financial burden of energy efficiency improvements. ESI projects can address a wide range of systems such as compressed air, pumps, fans, VFDs, refrigeration, lighting, and other common industrial subsystems.

Since launching in October 2009, the ESI program has facilitated hundreds of energy saving projects throughout the region. In fiscal year (FY) 2010, the ESI program saved enough electricity to power approximately 8,000 homes for one year. Millions of dollars have been paid out as incentives for successful projects to motivate industrial facilities to participate in the program.

New to the ESI program is the Energy Management component, which identifies opportunities for energy savings by evaluating and improving operations, maintenance, management practices, and supports a broad range of project types and sizes. Companies participating in energy management projects may be eligible for a co-funded on-site Energy Project Manager. Energy Project Managers will act as a dedicated on-

site resource, facilitate projects from beginning to end, and act as an energy champion for that facility. For those organizations looking to start small in their energy efficiency program, Track and Tune projects focus on improving energy use in everyday maintenance and operations rather than pursuing complex, facility-wide ones. For those companies that are ready to make energy efficiency a core business practice, the High Performance Energy Management feature is available; which provides training and support to facility staff to help apply new energy-efficient business principles to their long-term operational plans.

Energy savings and cost reductions aren't the only benefits businesses experience through the ESI program; energy efficiency projects can also increase productivity, and improve safety and employee satisfaction. Even simple steps like improved lighting uses less energy and can also increase up-time and create healthier, more effective work environments.

The ESI program is currently available through 102 public utilities in Idaho, Montana, Nevada, Oregon, Washington, and Wyoming. The program can be customized and adapted to any sized project, business, or facility. Typical industrial segments include food processing and distribution, pulp and paper, manufacturing, water and wastewater, high-tech, data centers, mining, chemical processing, metal processing, wood products, and lumber.

If you are an industrial facility, then the chances are good the ESI program can help you. To participate in the ESI program's energy consultation services and financial incentives, contact your local BPA-served public utility or visit www.EnergySmartIndustrial.com for additional contact information. You may also contact Jennifer Eskil, BPA, Energy Smart Industrial Program Manager, at jleskil@bpa.gov or (509) 527-6232.



Hazmat On-Line Resource: National Hazardous Materials Fusion Center

Developed by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) and the International Association of Fire Chiefs (IAFC) this internet-based portal provides responders with opportunity to both contribute to and access a suite of readily available resources.

This free resource serves as a one-stop shop for hazmat-response information, including training packages, reports, incident-based case studies, statistics, trends, alerts, recommendations and peer-to-peer networking.

Registered responders may view full RIST survey reports, smart practices and lessons learned and may participate in the hazmat discussion forum and bulletin boards. Agencies that respond to hazmat incidents may register to use the Hazmat Fusion Center's incident-reporting system.

Emergency responders must register either an individual or agency user to access secure portions of the portal. Registration is free.

Visit www.hazmatfc.com



Plan to attend the **FREE EPA Risk Management Training Day** in your area

RISK MANAGEMENT PROGRAM (RMP) Training

Eugene, Oregon - March 17, 2011
Boise, Idaho - May 16, 2011
Seattle, Washington - Coming Fall 2011

Additional information can be found on EPA Region 10's RMP Website: [Training Information](#)

Where Do I Go For More Information?

<http://www.epa.gov/emergencies/rmp> will be updated as new information becomes available.

EPA maintains numerous listservs to keep the public, state and local officials, and industry up to date, including several that pertain to emergency management. You can sign up for our list serve to receive periodic updates:
https://lists.epa.gov/read/all_forums/subscribe?name=callcenter_oswer

EPA Region 10 RMP Coordinator:
 Javier Morales 206-553-1255

EPA Region 10 RMP Website:
<http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/rmp>

Superfund, TRI, EPCRA, RMP & Oil Information Center

The Information Center can also answer questions related to Clean Air Act section 112(r) and RMP reporting requirements.

(800) 424-9346 or TDD
 (800) 553-7672

(703) 412-9810 or TDD (703) 412-3323 in the Washington, D.C. area

Normal Hours of Operation:
 Monday - Thursday 10:00 a.m. - 3:00 p.m. Eastern Time
 Extended Hours of Operation (May, June, and July):
 Monday - Friday 9:00 a.m. - 5:00 p.m. Eastern Time
 Closed Federal Holidays

<http://www.epa.gov/superfund/contacts/infocenter/>

Risk Management Program (RMP) Reporting Center

The Reporting Center can answer questions about software or installation problems.

The RMP Reporting Center is available from 8:00 a.m. to 4:30 p.m., Monday through Friday, for questions on the Risk Management Plan program.

(703) 227-7650 (phone)
RMPRC@epa.cdx.net (e-mail)

This newsletter provides information on the EPA Risk Management Program, EPCRA, SPCC/FRP and other issues relating to Accidental Release Prevention Requirements. The information should be used as a reference tool, not as a definitive source of compliance information. Compliance regulations are published in 40 CFR Part 68 for CAA section 112(r) Risk Management Program, 40 CFR Part 355/370 for EPCRA, and 40 CFR Part 112.2 for SPCC/FRP.