

Environmental Management System

Sandia National Laboratories

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ISO 14001 Surveillance Audit November 10 - 13, 2009

Photo by Lloyd Wilson

In June 2009, Sandia National Laboratories, New Mexico (SNL/NM) received the International Organization for Standards (ISO) 14001 certification for its Environmental Management System (EMS). Sandia's EMS Coordination Team presented the ISO 14001 certificate to Tom Hunter on August 10, 2009.

During the ISO 14001 audit in May 2009, auditors found 12 minor non-conformities resulting in 12 Root Cause analysis and 12 Corrective Action Plans. The EMS Coordination Team has been working for the past six months to remedy the non-conformities.

Auditors will revisit SNL/NM November 10 – 13 for the first surveillance audit (these will occur every six months). Please be prepared as you or your work area may be assessed for conformance to ISO 14001 standards. To learn more about ISO 14001 and your responsibilities, visit the EMS website:

http://info.sandia.gov/esh/ems/iso_14001.shtml

Things you should know:

1. You should know that Sandia has an ES&H Policy:
"The Environment, Safety and Health (ES&H) Policy of Sandia is to protect and preserve the environment, and to ensure the safety and health of its Members of the Workforce, by providing a place of employment that is, as much as possible, free from recognized hazards that have the potential to cause physical harm to workers." Sandia protects worker health, public health, and the environment through continual improvement, the elimination of hazards and the prevention of pollution."
2. You should know how your job impacts the environment as well as how you can mitigate risks to the environment caused by your job.
3. You should know if your work instructions (procedures) include environmental considerations. Are your procedures current?

From left to right: Morgan Gerard, Erin Murphy, Katrina Wagner, Michael Hazen, Jack Mizner, Tom Hunter, Pascale Waffelaert, Margie Marley and Bonnie Little

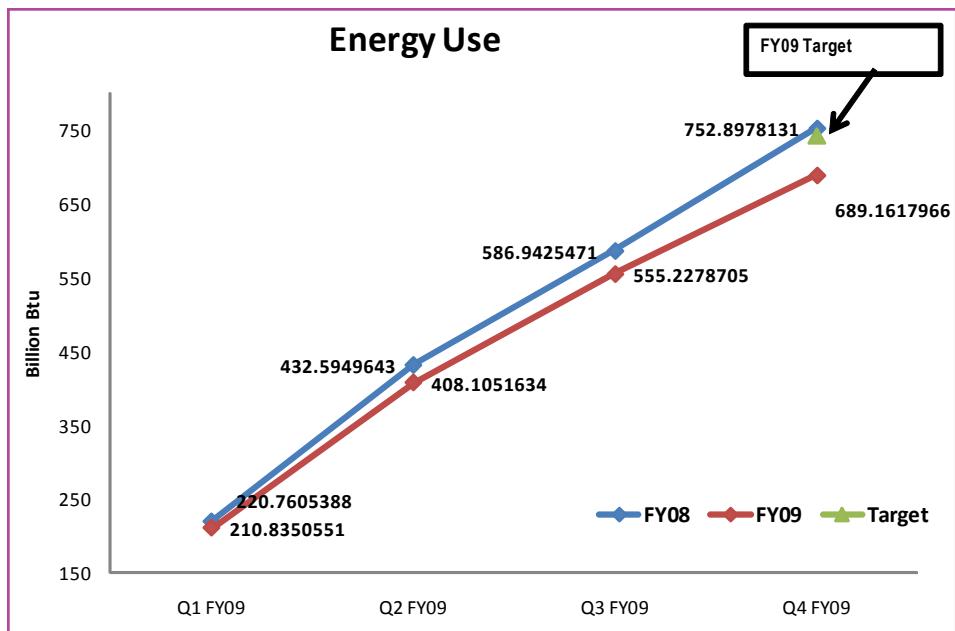


Accomplishments & Goals

EMS Objectives & Targets

As part of its Environmental Management System (EMS), Sandia annually performs an analysis to identify and rank environmental aspects associated with Sandia activities, products, and services and potential environmental impacts related to those aspects. Those aspects with the highest risk score are considered to have the greatest potential to impact the environment and are called significant aspects. Once the significant aspects have been determined, Sandia sets corporate environmental objectives and targets

to mitigate the environmental impacts of its significant aspects. Some of these objectives and targets are specific to certain activities but others affect all members of the workforce. For example, energy use is an aspect that touches all areas of the site. Sandia has an environmental target to reduce its energy use by 30 percent by fiscal year (FY) 2015 relative to the FY2003 baseline. Other environmental objectives for FY10 include reducing water use and increasing environmentally preferable purchasing.



Additionally, each Division sets environmental objectives and targets specific to the activities of that division. Progress towards meeting the objectives and targets are tracked quarterly and reported in the Management Assurance Report (MAR). Below are several examples of FY09 targets.

To learn more about objectives and targets, visit the EMS website:

<http://info.sandia.gov/esh/ems/index.shtml>

Submit by
January 8,
2010!

EMS Excellence Awards

The Annual Environmental Management System (EMS) Excellence Awards recognize innovation made by individuals or teams that contribute to the vision of Sandia's EMS. The EMS Core Team will recognize those individuals and teams who demonstrate excellence in five categories:

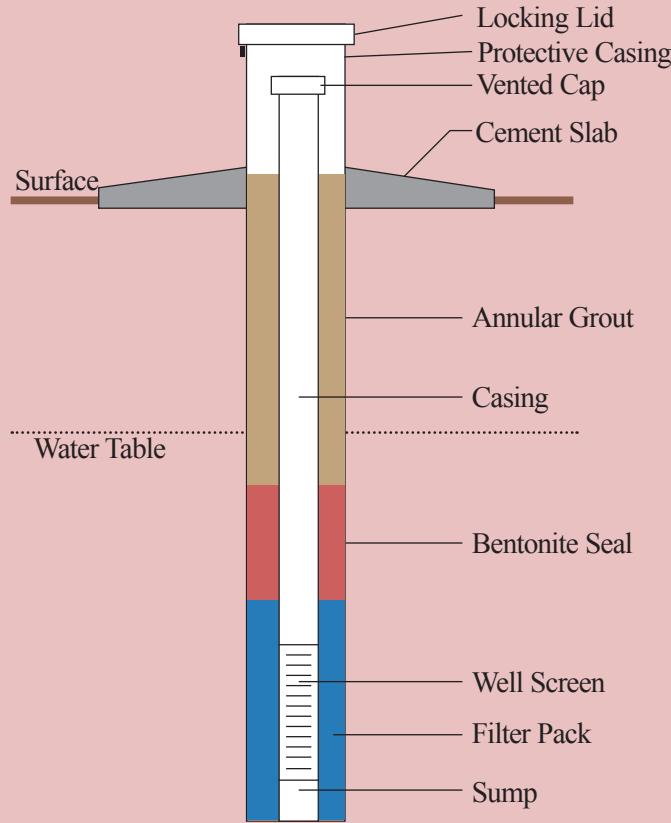
1. Water Conservation/Energy Reduction
2. Risk Mitigation/Environmental Protection
3. Environmentally Preferable Purchasing
4. Waste Minimization
5. Recycling

Please visit our website at <http://www-irn.sandia.gov/esh/ems/excellence.shtml> for information on the nomination process. Also, refer to either

your EMS Champion, Environmental Compliance Coordinator and/or Pollution Prevention Representative and they will be glad to assist you with the nomination preparation. Submit your nominations now to Katrina Wagner at kmwagne@sandia.gov (844-1810). The deadline is **January 8, 2010**; winners will be announced at our awards ceremony on February 2, 2010.

Featured Program: Groundwater

Monitoring-Well (Not to Scale)



Groundwater wells are about 12 inches in diameter and typically go 500 feet below the surface. The well consists of a steel pipe casing that surrounds a well-riser (PVC pipe) and well screen. The well screen is surrounded with a filter pack that is made up of uniform-size sand particles, which allows the water to come through the screen. A bentonite seal made of clay material goes above the well screen to prevent any contamination.

Site-Wide Environmental Impact Statement Undergoing Revision

Sandia National Laboratories, New Mexico (SNL/NM) is committed to environmental protection and minimizing environmental impacts associated with work activities. The National Environmental Policy Act (NEPA) provides a mechanism for environmental impacts to be evaluated. The Site-wide Environmental Impact Statement (SWEIS) provides SNL/NM with operational parameters that will ensure continued environmental stewardship.

The current SWEIS is 10 years old and SNL/NM is in the

Groundwater Protection Program

The Groundwater Protection Program (GWPP) at Sandia National Laboratories, New Mexico (SNL/NM) implements a site-wide approach for groundwater protection as required by U.S. Department of Energy (DOE) Order 450.1A. The GWPP and the Environmental Restoration (ER) Project collect groundwater data at SNL/NM. Both programs coordinate to monitor wells throughout SNL/NM, operational areas, and environmental remediation sites. The GWPP is developed and managed by the Environmental Programs and Assurance Department (4133).

The mission of the GWPP is to protect groundwater resources at SNL/NM and the surrounding area by identifying potential sources of contamination, working with line organizations to prevent groundwater contamination, implementing effective groundwater surveillance to detect contamination if it should occur, and initiating abatement or remedial action where necessary. The program identifies, monitors and remediates environmental impacts to groundwater through a network of 74 wells across the site. The GWPP works in conjunction with the ER program to ensure that the wells are analyzed each year to determine water quality.

The groundwater wells have a finite lifetime that is based on the water-level, so the GWPP conducts water-level measurements on a quarterly or monthly basis. When the water-level drops below the bottom elevation of the well screen (see graphic), the GWPP must replace the well at the location.

On average, water-levels have been dropping about 1 foot each year. Recently, a well called "PL3" dropped below that critical level and the GWPP had to initiate activities to replace it. The GWPP plugged and abandoned wells PL1 and PL3 and replaced PL3 with a new well called PL4. Plugging and abandoning wells is all part of groundwater protection because it prevents surface water from running down into the well.

To access the 2008 Annual Groundwater Monitoring Report visit: http://info.sandia.gov/esh/depts/envmgmt_intgtraining/publications.htm.

process of developing source documents to support DOE in the development of the new SWEIS.

How can I help with this update? The SWEIS Source Document team may need your assistance with providing data for these documents. Your assistance and timely submittals will ensure our success. A data call will be occurring in January 2010 requesting this assistance.

If you would like to learn more about NEPA and the SWEIS, please visit Corporate Process ESH100.1.EP.2, <https://my.sandia.gov/authsec/portal/cps/environmental-SafetyHealthSWEIS>.

TIPS for the Holidays

Americans throw away 25% more trash during the Thanksgiving to New Year's holiday period than any other time of year--about 1 million extra tons per week. Help reduce that percent by giving these tips a try during the holidays.

THANKSGIVING:

- Reduce the amount of waste you produce by buying only as much as you need and choosing products that come in packaging that can be recycled.
- Store food in reusable containers and use cloth napkins that can be washed and used again.
- Recycle paper, and all plastic, glass and aluminum containers. If you don't already have a compost bin, use your Thanksgiving fruit and vegetable trimmings to start one. The compost will enrich the soil in your garden next spring.
- Buying locally grown food is one good way to have an eco-friendly Thanksgiving. Locally grown food is good for your table, your health, the environment and the local economy.
- Using organic food for your feast is another good eco-friendly Thanksgiving strategy. Organic fruits, vegetables and grains are grown without chemical pesticides and fertilizers; organic meat is produced without antibiotics and artificial hormones.

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CHRISTMAS

- Bring your own bags on shopping trips so shops won't have to give you new ones with your purchases.
- Avoid new gift boxes with your purchases if you have a supply of old ones, or try to wrap without a box.
- Buy a tree grown locally to save energy associated with transportation.
- If you are going to purchase wrapping paper, avoid those with metallic colors, as they cannot be recycled. Look for wrapping paper made from recycled materials and remember to recycle it.
- Make gift tags from last year's holiday cards or simply write your greetings on the box to help reduce waste.
- Buy cards made from recycled paper (look for "post-consumer" content) and printed in non-toxic inks.
- Decorate with more energy efficient mini-lights rather than the larger, old fashioned lights. Turn them on only when someone's around to appreciate them.

NEW YEARS

- Make one of your New Year's resolutions for 2010 to be more "green" in the coming year. This kind of thinking is the first step in the right direction! Remember that it is not about being perfect when it comes to "green" living. Just one change in your lifestyle can make a huge difference!

SOURCES:

www.use-less-stuff.com
http://environment.about.com/od/greenthanksgiving/tp/ef_thanksgiving.htm
<http://www.greenchoices.utah.gov/AtHome/holidays.htm>



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