



Champagne Outreach ... on a Beer Budget



June 2, 2009

Katrina Wagner, Outreach Coordinator

Tess Goering, Student Intern

Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



What does this mean?

- **Sandia's Environmental Management System (EMS) provides exemplary outreach and awareness that:**

- **Appears expensive and luxurious,**

-BUT-

- **Is economical and adds value**



Outreach Presentation Outline

1. Introduction – Sandia’s EMS & LTES Programs
2. Why does Sandia need environmental outreach?
3. Who is our audience?
4. What do we communicate?
5. How do we communicate?
6. Outreach Challenges
7. Outreach Success Story
8. Outreach and ISO 14001
9. How do we afford it?
10. Questions and Feedback



Sandia's EMS & LTES Programs

- **EMS is a continuing cycle of planning, evaluating, implementing, and improving processes and actions undertaken to achieve environmental goals.**
- **Sandia's Long-term Environmental Stewardship (LTES) Program involves stewardship activities for past, present, and future activities.**
- **Outreach is a vital component of our EMS & LTES program.**



Displays at an EMS event at Sandia

Why does Sandia need Environmental Outreach?

- At Sandia we have used Outreach and Communication as an integral part of our EMS to effectively communicate to the workforce and the public;
- To help members of our workforce reduce environmental impacts at work and at home;
- To communicate with the workforce and the public about Sandia's commitment to environmental stewardship;
- To receive feedback from the workforce and the public about environmental concerns;
- Outreach is a requirement under DOE Order 450.1A.

Who is our audience?



Information booth at an EMS event at Sandia

- **Members of Sandia's Workforce**
- **Sandia Management**
- **The Public, including students**

What do we communicate?

- **Environmental Awareness at home and at work**
- **How we protect the environment at Sandia**
- **Sandia's environmental accomplishments**
- **Workforce accomplishments**
- **How to minimize environmental impacts**

How do we communicate?

- **Newsletters**
- **On-site Events (Earth Day, EWS)**
- **EMS Excellence Awards**
- **Fact Sheets**
- **Internal and External Websites**
- **National Museum of Nuclear Science and History Video and display**
- **Public Meetings**
- **Youth Education (Youth Conference & Education models)**
- **Internal Publications (Cafeteria Events, SDN, Porcelain Press, LabNews)**
- **Awareness Campaigns**
- **Nontraditional Communication Tools**

Newsletters



2nd Annual Earth, Wind and Sun Event to be Held at Sandia July 21 & 22

By Katrina Wagner

As part of its Environmental Management System (EMS) outreach and awareness activities, Sandia National Laboratories/

New Mexico (SNL/NM) and Kirtland Air Force Base (KAFB) will host the 2nd annual Earth, Wind and Sun event July 21 & 22, 2009. This two day event will present speakers, such as Dr. Dennis Meadows, author of *Limits to Growth* and winner of the 2009 Japan Prize, as well as Michael F. McGhee, Acting Deputy Assistant Secretary of the Air Force for Energy, Environment, Safety and Occupational Health (EESOH).

The event will feature an outdoor tent on July 21 with as many as 60 information booths from organizations such as ABQ Ride, the NM Solar Association, and the South Valley Grower's Association, as well as a parking lot full of alternative fuel vehicles. In the afternoon tours of Sandia's Leadership in Energy Efficient Design (LEED) Certified buildings and the Photovoltaic System Evaluation Laboratory (PSEL) will be available. The second day, July 22, will feature a panel discussion on Sustainable Transportation and workshops including presentations on Installing Photovoltaics and Home Energy Audits.

This year, we are co-hosting Earth, Wind and Sun with KAFB to take advantage of synergies and inspire friendly competition to reduce our ecological footprint. The sub-theme of the event this year is "Institutional Transformation

to Sustainability," a topic of vital importance to the economic and environmental health of the country. A panel of experts representing large organizations will engage in discussions with Sandia to meet future challenges through transformation and to overcome barriers to major institutional change.

We will also feature participation from decision makers, including senior leaders from the Department of Defense and DOE, as well as technical experts from within Sandia and KAFB and recognized national leaders. The event will target members of Sandia's workforce, the KAFB community, the local professional community, DOE, other federal facilities, and Lockheed Martin. We are also hoping to work with Sandia management to further develop strategic concepts like the National Security of Ecology.

Our Goal

Our goal is to make this a flagship event for the local, DOE and Federal communities and increase participation to 1,500 people. By leveraging expertise and influence we can educate and inform, and develop and implement achievable solutions to transform institutions and infrastructure to more secure, sustainable and responsible operations.

Members of Sandia's workforce are encouraged to attend. For more information, contact Katrina Wagner (505) 844-1810, kwagner@sandia.gov or visit <http://environment.sandia.gov/news/index.shtml> to register.

ES&H Policy

The Environment, Safety and Health (ES&H) Policy of Sandia Corporation (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. With this Policy, Sandia will accomplish its contribution to the overall protection of worker health, public health, and the environment.

2009-2805P



Environmental Management System Newsletter – published quarterly; distributed to members of the workforce; available to the public.

Long-term Environmental Stewardship Sandia National Laboratories Winter 2008 Newsletter

This newsletter is distributed to the community to provide the latest information on Long-term Environmental Stewardship (LTES)/Long-term Stewardship (LTS) environmental activities at Sandia.

What is LTES?

The Sandia National Laboratories, New Mexico (SNL/NM) LTES Program involves stewardship activities for past, present and future activities. The LTES program "promotes the long term stewardship of a site's natural and cultural resources throughout its operational, closure, and post closure life cycle" (Department of Energy Order 450.1, Environmental Protection Program).

The SNL/NM LTES Program is responsible for providing corporate-wide processes for minimizing adverse environmental impacts from Sandia operations, including new, active and legacy sites. These processes will identify and manage cumulative environmental impacts prior to reaching regulatory limits.

What is LTS?

A sub-component of LTES is the long-term stewardship of legacy waste sites (former Environmental Restoration sites). These LTS sites require additional monitoring and maintenance measures. SNL/NM LTS activities have been increasing as the Environmental Restoration Project comes to a close. Scheduled cleanup of more than 200 Environmental Restoration sites are complete. Long-term monitoring requirements for LTS are currently in development.

What are some LTES activities at SNL/NM?

As part of stewardship activities, the LTES Program is developing a life-cycle model to address environmental impacts early in the planning process, allow for proactive mitigation and/or clean-up at the end of a project, and to prevent the creation of additional environmental restoration sites.

The LTES Program is continuing to grow and improve our ability to better represent concerned citizens. We have created a new website that offers user-friendly access to information on events and projects within the LTES Program. The public can also access fact sheets relating to Sandia's environmental programs, as well as information on the Community Checklist.



For more information on Sandia's LTES Program, please visit our website at:

<http://ltes.sandia.gov>

Long-term Environmental Stewardship Newsletter – published semi-annually; distributed to 500 stakeholders.

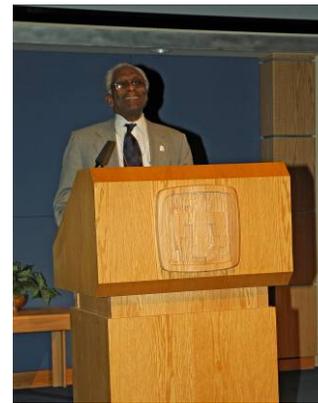
EMS Events - Lecture Series



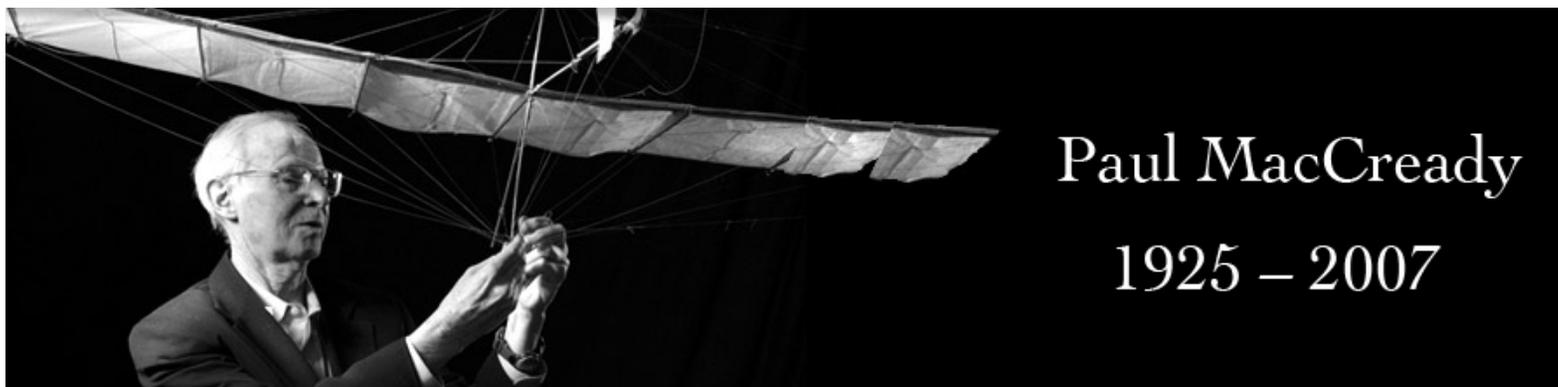
Dr. Mario Molina, Nobel Prize Laureate, addressed Sandia at our Earth Day celebration in April 2006.



Sandra Postel, Director of the Global Water Project, addressed Sandia at an EMS Event in July 2006.



Dr. Noel Brown, President of Friends of the United Nations, discussed world food supply at Sandia in October 2006.



The late Dr. Paul MacCready, inventor of the human powered aircraft, addressed Sandia for our Earth Day Celebration in April 2007

Earth, Wind and Sun 2009



July 21 & 22, 2009

Please Join Us!

Earth, Wind and Sun 2009

- **SNL co-hosting EWS with KAFB!**
- **Facilities is co-coordinating with EMS**
- **Our goal is to increase participation to 1,500 people**



Earth, Wind and Sun 2009

July 21st

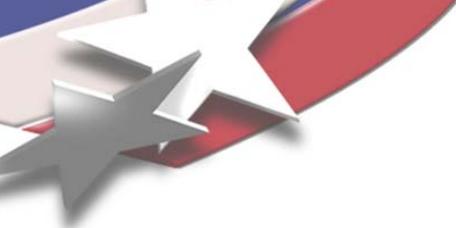
Keynote Speakers:

Michael F. McGhee, Acting Deputy Assistant Secretary
of the Air Force for Energy, Environment, Safety and
Occupational Health (EESOH)

&

Dennis Meadows, winner of the 2009 Japan Prize.
Dr. Meadows will present a talk entitled,
“Four Misconceptions That Block Constructive Climate
Change Policy”





Earth, Wind and Sun Confirmed Booths on July 21st

Environmental Programs & Assurance 4133

Electric Cars of Albuquerque, LLC

Voss Lighting

**Wind Energy Technology and Solar
Technologies**

**NMSU's Bernalillo County Cooperative
Extension Service**

**Los Alamos National Laboratory -
Environmental Division**

Fleet Services

**City of Rio Rancho, Water Conservation
Office**

Pollution Prevention

Bocotek, Inc.

Everguard Solar

New Mexico Rail Runner Express

ABQ Ride (City of Albuquerque)

**Direct Power & Water Corp. Power-Fab
(Manufacturing)**

Soilutions, Inc

UNM-Sustainability Studies Program/FoodPrintNM

310 Solar

NMSU/Institute for Energy & the Environment

Los Poblanos Organics

Enchantment Recycling, LLC

Albuquerque Bernalillo County Water Utility Authority

UNM Solar Car

**Southern Sandoval County Arroyo Flood Control
Authority (SSCAFCA)**

Motorized Sun Solutions

Rio Grande Community Farm

LUZ Energy Corp

Acudetox Non-Profit

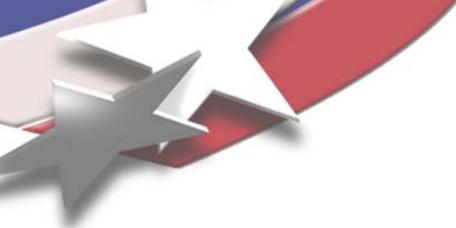
Albuquerque Public Schools



Earth, Wind and Sun Tours on July 21st

- **SNL LEED Buildings (Tour 1)**
 - Sandia has more LEED Certified Buildings than any other organization in New Mexico!
- **SNL Photovoltaic System Evaluation Laboratory (PSEL) (Tour 2)**

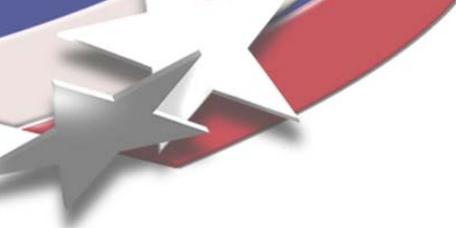




Earth, Wind and Sun 2009 Workshops on July 22

- ***How to Integrate Sustainable Practices into Your EMS*** - Josh Silverman, Jane Powers and Kim Fowler
- ***Renewable Energy Panel: Sandia Programs and Projects – Biofuels to Fuel Cells*** – Dr. Grant Heffelfinger and Dr. Whitney Colella
- ***Sustainable Home*** - John Avenson and Steve Stevens
- ***Sustainable Transportation Initiatives Panel*** - Stuart Anderson, Isaac Benton and Claude Morelli
- ***How Do I Get This Stuff Up On My Roof? And Answers to Other Common Questions About Photovoltaics*** - Marlene Brown
- ***Fish Banks, Ltd. - Managing a Renewable Resource*** – Leonard A. Malczynski
- ***Improving the Comfort and Efficiency of Your Home: An Introduction to Home Energy Audits*** - Adam Walker
- ***Green Computing*** - David Martinez and Dale Sartor
- ***Sustainability at Mesa Del Sol*** – Michael D. Daly
- ***Wind Energy R&D and Grid Integration*** – Benjamin Karlson
- ***Institutional Transformation for a Sustainable Future*** – Presenters from Sandia, Kirtland and other large institutions
- ***Ecology of National Security*** - Howard Passell





Earth, Wind and Sun 2009 Registration Information!

Visit the external EMS website to register:

<http://environment.sandia.gov/new/ews.shtml>



EMS Excellence Awards

EMS Awards recognize exemplary environmental advancements made by members of Sandia's workforce in the following categories:

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

Since 2006, we have received **129** nominations!



Environmental Management System
Excellence Awards

Gone Green?

If you think you've **Gone Green**, consider submitting an EMS Excellence Award Nomination in one of these five categories:

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

Submit Nominations Now!
Email them to: kmwagne@sandia.gov
Deadline: June 13, 2008

The Semi-Annual Environmental Management System (EMS) Excellence Award recognizes innovation made by individuals or teams that contribute to the vision of Sandia's EMS.
For more information on the award nomination process visit <http://ems.sandia.gov>



Flyer requesting nominations for
EMS Excellence Awards

Fact Sheets

Water Conservation

WHY CONSERVE WATER?
 Water is a precious resource critical to the economic health of the city, state and continued operations at Sandia National Laboratories/New Mexico (SNL/NM).

Water Conservation Program
 A memorandum of understanding (MOU) requires SNL/NM to continually reduce water use to mitigate its impact on the aquifer.

This MOU drives the water conservation program and exists between SNL/NM and the

- Department of Energy
- Kirtland Air Force Base
- City of Albuquerque
- State of New Mexico
- National Research Energy Laboratory

Goal
 The goal of the water conservation program is to reduce our water use by 30% based on a 1995 estimated use.

How do we monitor our use?
 SNL/NM uses water meters to monitor water use. A central computer communicates with the meters and records data minute-by-minute.

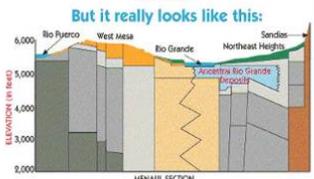
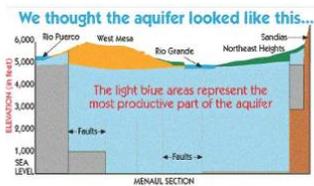
Water meters are installed:

- On all the main lines feeding SNL areas
- On the major buildings in Technical Area IV



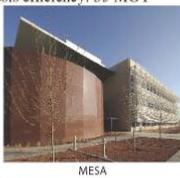
In the future, meters will be installed in Technical Area I and II.

Printed on 100% recycled content paper. For additional EMS information, please visit: <http://EMS.sandia.gov>



Water Conservation Projects
 Highlights of some projects are listed below. The estimated water savings are shown in million gallons per year (MGY).

Building 858 & MESA
 Increased reverse osmosis efficiency: 35 MGY
 Other planned efficiencies in the MESA project will save an additional 60 MGY



Projects at Other Locations
 Steam plant: repaired leaks, replaced dealkalizer, began caustic addition to boilers: 20 MGY CSRL, Building 893: replaced once-through cooling system for lasers with closed loop: 10 MGY



Fact Sheets provide helpful environmental tips and facts. They are posted on our websites and are distributed at all environmental events.

Sandia's fact sheets include:

- EMS,
- LTES,
- Green Buildings,
- Green Purchasing,
- Water Conservation,
- Sustainability,
- Energy Use,
- Recycling,
- and Natural Resources.

Front

Reduce, Reuse, and Recycle



BEST PRACTICE — "REDUCE"

When you "reduce," it means that you use less, and fewer items need to be produced, requiring less raw materials, energy, water, and transportation.

Optimize Efficiency

- Evaluate/ modify processes to minimize waste.
- Monitor chemical shelf life: First-In-First-Out."
- Order new supplies/chemicals only when needed and in as small a quantity as possible.

Minimize the Use of Paper

- Print and copy double-sided.
- Consider if a printed copy is necessary.

Stop the Junk Mail

- Call catalog companies and ask to be removed from their mailing lists.

NEXT CONSIDER "REUSE"

If you have "left over" materials, determine if they can be reused in their current form rather than recycling or disposing of them.

- Submit CIS inventory to the Chemical Exchange Program for use by others.
- Check Reapplication Services and the Chemical Exchange Program before purchasing new products.
- Easily reuse file folders by writing the subject title in pencil.
- Reuse previously printed paper as "scratch paper," or to print draft copies.



Sandia uses remanufactured toner cartridges. Each new toner cartridge requires about 3 quarts of oil. Buying a remanufactured toner cartridge or "tapping" the Toner Exchange program reduces Sandia's thirst for oil. <http://info.sandia.gov/esh/p2/Toner.htm>

Over 1,500 gallons of oil and \$200K in purchase costs have been saved through toner cartridge reuse since FY05!

THEN IF IT IS RECYCLABLE – "RECYCLE"

Recycling is a great practice; it should be done after the "reduce" and "reuse" options. Recycling takes usable materials and transforms them into a new product.



For additional EMS information, please visit: <http://EMS.sandia.gov>

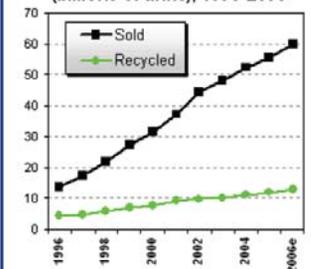


Back

Reduce, Reuse, and Recycle

Plastic beverage bottles are more common every year, but the recycling of them is not. Plastic bottles are perceived as a "convenience" item that has no value, but each ton of plastic bottles recycled conserves the equivalent of 12 barrels of oil.

PET Beverage Sales and Recycling in the U.S.
(billions of units), 1996-2006



CRI data derived from American Plastics Council, National Association of PET Container Resources. Includes dairy.
© Container Recycling Institute, 2006

Participate in Recycling Programs

At work

Please visit: <http://info.sandia.gov/esh/p2/recycling.htm> to learn what you can recycle and to know who to contact for additional questions.

At home

If you live in the City of Albuquerque, you can recycle curbside – visit: <http://www.cabq.gov/solidwaste/curbrecy.html>.

Elsewhere

If you live in an area that does not have curbside recycling, you can take recyclables to one of 20 local drop off locations: <http://www.cabq.gov/solidwaste/dropoff.html>.

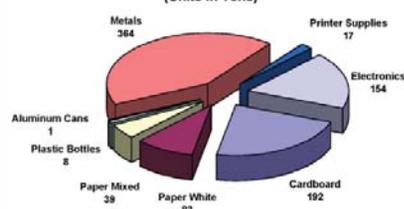
Recycling one ton of aluminum cans saves:

- 54,000 kWh of electricity or 184.2 million BTUs of process & transportation energy
- 10 cubic yards of landfill space

Recycling one ton of paper saves:

- 4,100 kWh of energy (enough to power an average home for 7-8 months)
- 7,000 gallons of water
- 17 mature trees
- 3 cubic yards of landfill space

Materials Recycled From Routine Operations by SNL/NM FY08
(Units in Tons)



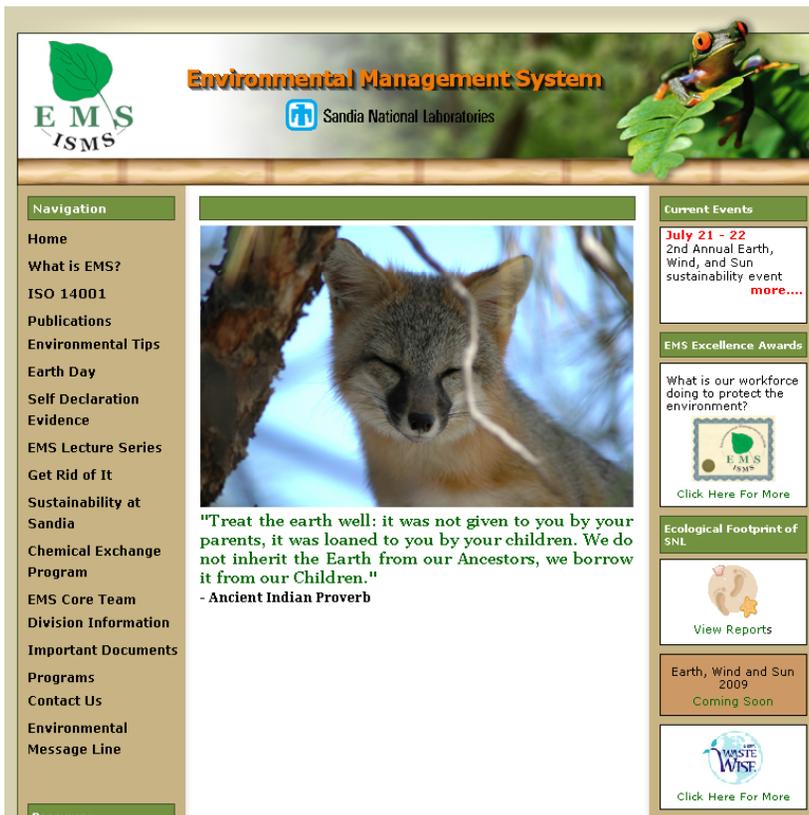
For more information, contact Samuel McCord at samccor@sandia.gov or <http://info.sandia.gov/esh/p2/recycling.htm>



Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



Websites



Environmental Management System
Sandia National Laboratories

Navigation

- Home
- What is EMS?
- ISO 14001
- Publications
- Environmental Tips
- Earth Day
- Self Declaration Evidence
- EMS Lecture Series
- Get Rid of It
- Sustainability at Sandia
- Chemical Exchange Program
- EMS Core Team
- Division Information
- Important Documents
- Programs
- Contact Us
- Environmental Message Line

Current Events

July 21 - 22
2nd Annual Earth, Wind, and Sun sustainability event
[more....](#)

EMS Excellence Awards

What is our workforce doing to protect the environment?

[Click Here For More](#)

Ecological Footprint of SNL


[View Reports](#)

Earth, Wind and Sun 2009
Coming Soon

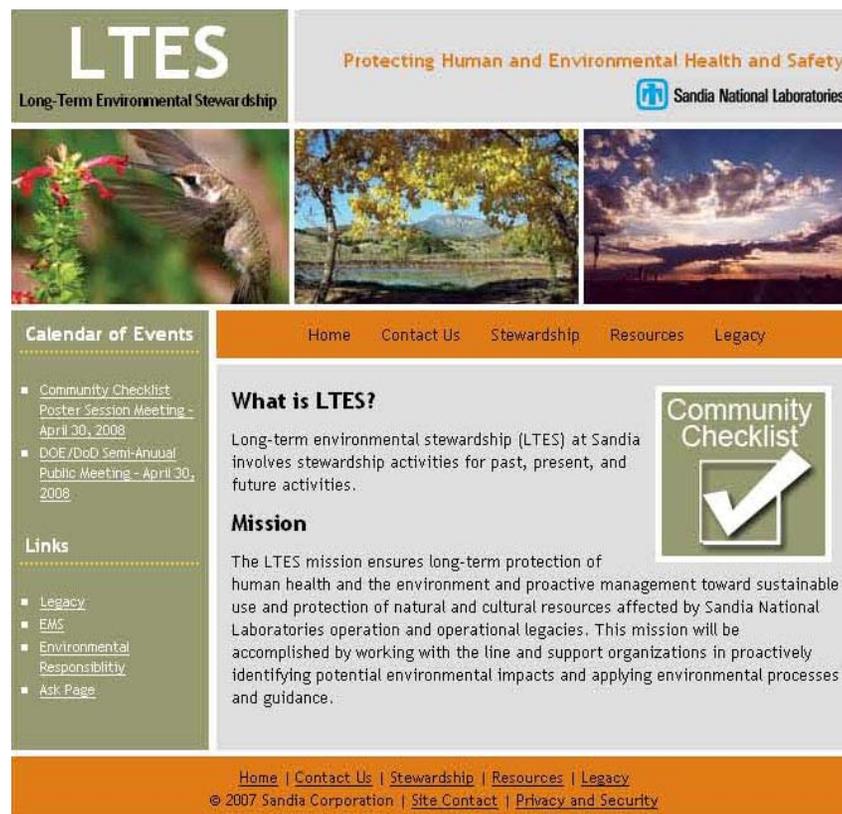
WASTE WISE
[Click Here For More](#)

Resources

Community Checklist

"Treat the earth well: it was not given to you by your parents, it was loaned to you by your children. We do not inherit the Earth from our Ancestors, we borrow it from our Children."
- Ancient Indian Proverb

environment.sandia.gov



LTES
Long-Term Environmental Stewardship

Protecting Human and Environmental Health and Safety
Sandia National Laboratories

Calendar of Events

- Community Checklist Poster Session Meeting - April 30, 2008
- DOE/DoD Semi-Annual Public Meeting - April 30, 2008

Links

- [Legacy](#)
- [EMS](#)
- [Environmental Responsibility](#)
- [Ask Page](#)

What is LTES?

Long-term environmental stewardship (LTES) at Sandia involves stewardship activities for past, present, and future activities.

Mission

The LTES mission ensures long-term protection of human health and the environment and proactive management toward sustainable use and protection of natural and cultural resources affected by Sandia National Laboratories operation and operational legacies. This mission will be accomplished by working with the line and support organizations in proactively identifying potential environmental impacts and applying environmental processes and guidance.

Community Checklist

[Home](#) | [Contact Us](#) | [Stewardship](#) | [Resources](#) | [Legacy](#)

© 2007 Sandia Corporation | [Site Contact](#) | [Privacy and Security](#)

ltes.sandia.gov

Websites continued

sustainability at sandia national laboratories

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
Brundtland Commission

The path to environmentally sustainable operations at Sandia includes achieving 100% recycling of all recyclable commodities; applying resource productivity principles to **broady** institute procurement of sustainable products; using green chemistry principles to significantly reduce chemical purchases, waste generation and environmental releases; significantly reducing the sue/waste of potable water where alternatives exist, and incorporating sustainability thinking into process and project design practice.

The information on this site is designed to inform Sandia's workforce and help make Sandia a sustainable workplace.



Green Buildings at Sandia

Energy Management

Water Conservation

Environmental Management System

Pollution Prevention

Transportation

Ten Year Site Plan

Sustainability Research

Wind

PV

Security in Energy



Last Updated: 07/24/2008 16:36:27

Web Developers: [ES&H](#) [INT](#) [TEAM](#)
Content: [Katrina Wagner](#)

Sustainability Portal website – The information on this site is designed to inform Sandia's workforce and help make Sandia a sustainable workplace.

Green Buildings website – highlighting Sandia's numerous LEED certified buildings!

green buildings at sandia

Leading New Mexico with three Leadership in Energy and Environmental Design (LEED) Certified Buildings

[Green Buildings Home](#)

[Aspects of Sustainable Design](#)

[What Makes a Building Green?](#)

[History of SD at Sandia \(timeline\)](#)

[In the Pipeline](#)

[Existing Buildings](#)

[New Construction](#)

[Awards](#)

[LEED Checklist](#)

[SD Report](#)

[USGBC](#)

[Drivers](#)

[SUSTAINABILITY PORTAL](#)

Sustainable Design is an integrated approach that considers the entire life of a building from construction to demolition. The goals of sustainable design are to avoid depletion of resources including energy, water, and raw materials and prevent environmental damage caused by buildings and facilities throughout their life, and create building environments that are livable, healthy, and productive.

This website is intended to highlight Sandia's SD accomplishments and serve as a tool for Project Managers.



Joint Computational Engineering Laboratory (JCEL) at Sandia National Laboratories
[Click here for description](#)



Last Updated: 06/17/2008 10:57:35

Web Developers: [ES&H](#) [INT](#) [TEAM](#)
Content: [Katrina Wagner](#)

National Museum of Nuclear Science & History Kiosk

- Videos for the public about Long-term Environmental Stewardship at Sandia
- LTES Display
- Newsletters



Public Meetings

- **The Department of Energy and the Department of Defense hold semi-annual public meetings to discuss current status of Environmental programs and activities at Sandia National Laboratories and Kirtland Air Force Base.**
- **Goal: communicate with the public and receive feedback.**



Public Meetings continued

Community Checklist

- Members of Sandia's workforce met with community members who have an interest in LTES at Sandia to create the Community Checklist.
- The Community Checklist lists the community members' questions about LTES at Sandia. Subject matter experts addressed the questions and posted the answers to our LTES website.
- The Community Checklist is reviewed by Sandia's workforce annually to ensure it is current. There is a feedback mechanism on the checklist.



Youth Education

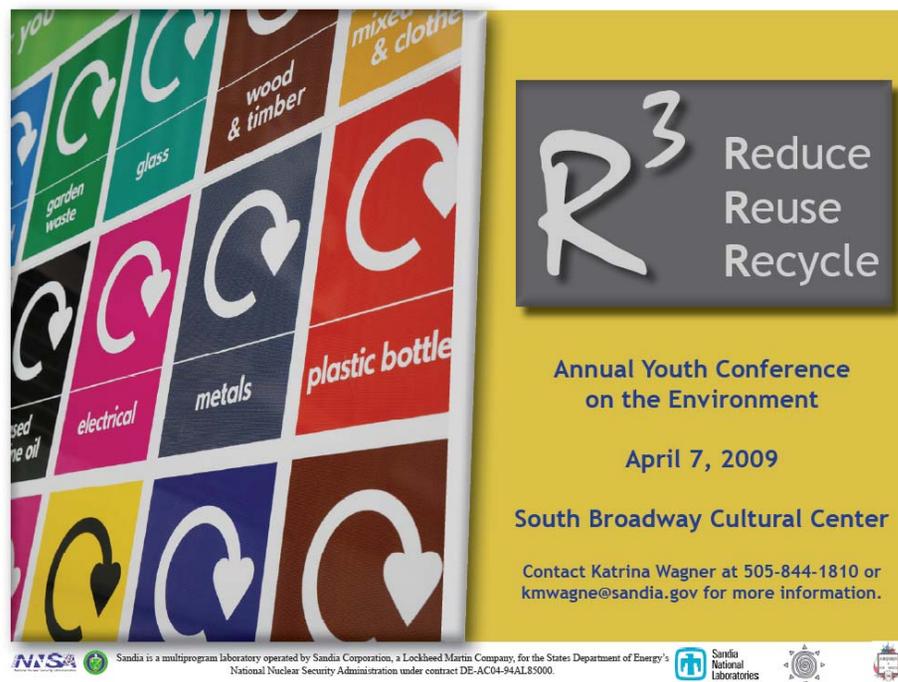
- **Teacher Curriculum**
- **Teacher Open House**
- **Education Models**
- **Annual Youth Conference on the Environment**



Student planners from the 12th annual Youth Conference

Annual Youth Conference on the Environment

- 12th Annual Conference was held on April 7th, 2009
- Theme was “Reduce, Reuse & Recycle”
- One day, FREE conference for high school students
- Hands-on learning of environmental issues



Internal Publications



Something to Think About...

Energy: Replacing six incandescent light bulbs in high-use areas in your home with comparable Energy Star® compact fluorescent light bulbs, which use up to 75 % less energy and last up to ten times longer, can reduce your overall annual electric consumption by more than 4 percent.

→ [Energy Management Program](#)

DOE Secretary Steven Chu speaks at Sandia

Praises nuclear defense work, advocates for more energy-related and climate-change research

By Neal Singer

There was a palpable sense of expectancy in the packed Steve Schill Auditorium at the first Sandia public appearance of DOE Secretary Steven Chu, a Nobel laureate in physics and highly praised former director of Lawrence Berkeley National Laboratory who, improbably, is also a professor of cell and molecular biology at University of California, Berkeley.

While Sandia's main focus, technical equipment, and buildings are clearly a national asset, the general tone of media reports had been that President Barack Obama seemed fixated on improving renewable energy and mitigating global climate change rather than in funding nuclear weapons programs. Sandia's historical starting point and still a large portion of its operating budget.

(Continued on page 4)

Tom Hunter all-hands: World is changing and so must Sandia



TOM HUNTER

The world is changing and Sandia must stay ahead of the curve, said Labs Director Tom Hunter at a recent all-hands meeting at the Steve Schill Auditorium. Story on page 6.



SECRETARY OF ENERGY Steven Chu during an all-hands meeting at Sandia. (Photo by Randy Marzetta)

Sandia LabNews

Vol. 61, No. 7 APRIL 24, 2009

Managed by National Nuclear Security Administration

Sandia's long-running satellite programs among largest at Labs

Thousands of people from throughout Sandia contribute to satellite endeavors

By Chris Burroughs



SANDIA'S satellite ground processing station (photo by Randy Marzetta)

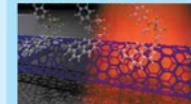
Over the past five decades Sandia has developed, fielded, and operated 140 satellite payloads without a critical mission system failure, making its satellite endeavors among the largest existing programs at the Labs. Sandia is now on the verge of a major program deliverable that has involved hundreds of people and hundreds of millions of dollars over the past several years.

"We are proud of our satellite efforts and their contributions to national security," says Bruce Walker, director of Monitoring Systems and Technology Center 5700. "Many people from across the Labs, particularly from divisions 1000, 2000, and 5000, have contributed to these complicated programs that are built on past successes. The work they do continues to inspire me."

Today's systems, he says, draw on many unique Sandia competencies, including space system engineering, high-bandwidth data processing, advanced software development, thermal management, high reliability software, and hardware engineering. Like other emerging technologies, the

(Continued on page 5)

Seeing the colors of the rainbow ... on the nanoscale



TO CONNECT: A nanoscale color detector, a team of Sandia researchers took inspiration from the human eye, and in a sense, improved on the model. See story on page 3.

Connected!

Gen Y group wrangles with improving collaboration across the Labs

By Julie Hall

Connectivity in Gen Y's credo and it applies to their entire universe, including the workplace. Having grown up with the Internet, used Facebook or MySpace in college, and for whom instant messaging and texting is second nature, Gen Y expects to use similar tools at work.

Generation Y, also sometimes referred to as Millennials or Echo Boomers, consists of individuals born roughly 1978 to 1996, give or take a couple years on either side. As "digital natives," they spent their formative years with computers, cell phones, Google, and more recently, sharing information on Flickr and YouTube. Technology is an extension of themselves and they expect their workplace to reflect this. Now, a group of primarily Gen Y scientists, engineers, laboratory staff members, technologists, and contractors at Sandia is looking at how to improve collaboration at the Labs. The goal of the fledgling effort is to look at both the cultural and technical

(Continued on page 11)

Inside . . .

Labs announces key executive changes
Rick Stulen to California lab;
Steve Rottler to Dir. 1000

Sandia President and Labs Director Tom Hunter has announced that Dr. 1000 UP Rick Stulen will assume leadership of Sandia California Laboratory (Dir. 1000), and that Dr. 2000 UP Steve Rottler will lead Dir. 1000. See page 2.



RICK STULEN



STEVE ROTTLER

Also inside . . .

- LANL seeks individuals in beryllium concern . . . 2
- Intel international science fair needs . . . 3
- Corporate Policy System up and running . . . 4
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- Sandia, Maryland Community College ink M&A . . . 12
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- NNSA, MESA honored by DOE . . . 15
- Recycled lab saves money, environment . . . 16
- Sandia, KAER, SSO in energy saving contest . . . 16

Family Day 2009 • May 16

Special four-page pull-out section beginning on page 7, with maps, photos, safety notes, and more



Sandia National Laboratories

Recent Lab News Coverage

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Environmental Management System honors eight with awards of excellence

By Chris Burroughs and Katrina Wagner (4131)

Sandia's Environmental Management System program has honored eight projects and individuals across the Labs with awards of excellence for their efforts at managing environmental risks and being good stewards of the environment. These awards, presented by Div. 4000 VP Mike Hazen, are part of the annual EMS Excellence Awards program.

"We received 19 excellent nominations, demonstrating that environmental excellence exists throughout the laboratory and is not just the domain of Center 4100," says Jack Mizner (4131), who coordinated the 2009 EMS Excellence Awards program. "The final award winners show true commitment to including environmental considerations as part of their jobs."

The awards, he adds, recognize those achievements by individuals whose job scope does not specifically include the word environmental. In fact, those with that job description were deliberately excluded from leading a team or being recognized for work they already do.

In the four years the program has been in existence,

more than 120 teams have submitted nominations.

In total, the 19 team and individual nominations for 2009 demonstrated the following results:

- Recycling nearly 2.4 million pounds and 750,000 cubic feet of materials
- Avoiding the generation of 27 waste, 400 cubic feet of radioactive cubic feet of mixed waste
- Reducing annual consumption 830,000 kilowatt hours of electricity of water
- Reducing greenhouse gas emissions metric tons

These initiatives represent a cost avoidance of more than \$1 million

The 2009 Excellence Award recipient **Greg Valdez (6323) in the category Reduction/Water Conservation.** "Bldg. 1008 Bicycle Champion." Commuter dedicated to sharing his passion through alternative commutes members of the workforce. Not on bike to avoid chasing others to us site. He ages new work by patch kit for any working lessons a riders or around engaged bring big other alternative inc

have been steadily rising due to rapidly dwindling supplies of this nonrenewable, hard to extract and capture gas. This retrofit has a five-year payback, reduces the need to purchase and manage 2,600 liters of liquid helium, and saves \$45,000 annually. In addition, it

Earth, Wind and Sun symposium set for July 21-22

Sandia's Environmental Management System (EMS) program will host the second annual Earth, Wind and Sun symposium July 21-22. It will feature speakers, booths, and workshops on how to green buildings, homes, and sites; conserve energy and water; and reduce the environmental impact of transportation.

The subtheme of this year's event will be "Institutional Transformation to Sustainability," a topic important to the economic and environmental health of the country, says Jack Mizner (4131) who is involved in Earth, Wind, and Sun planning.

The 2009 event is cohosted by Sandia and Kirtland Air Force Base (KAFB) to take advantage of synergies and inspire friendly competition to reduce both institutions' ecological footprints. As part of the event, the University of New Mexico, City of Albuquerque, and KAFB will engage in discussions with Sandia to meet future challenges and to overcome barriers to major institutional change.

Jack says this year's Earth, Wind and Sun event will also feature participation from decision makers, possibly including members of the New Mexico congressional delegation staff and senior leaders from DOE and the Air Force, as well as technical experts from Sandia and Kirtland and recognized national leaders.

"Our goal is to make this a flagship event for local, DOE, and federal communities and increase participation to 1,500," Jack says. "By leveraging expertise and influence we not only educate and inform, but develop and implement achievable solutions to transform institutions and infrastructure to more secure, sustainable, and responsible operations."



Earth Day 2009 reinforces message: every little bit counts



Sandia's observation of Earth Day 2009 on April 22 emphasized the theme "Every Little Bit Counts." Earth Day coordinator Jack Mizner (4131) said before the event that "every little bit you do helps, whether it's taking a cloth bag to the grocery store instead of using plastic bags or recycling."

Getting into the spirit of Earth Day (in the photo above) were landscapers Tomas Gutierrez, Richard Lucero, and Ken Negus (all 4843), showing off their reusable shopping bags. In the photo at right, Ivan Ermanoski (1114), Bob Burr (5762), and Lucille Roybal (4846) examine an LED-based light fixture that can replace a standard fluorescent light, using far less energy and lasting far longer.

More than 1,000 Sandians attended various Earth Day activities, which included a keynote speech by xeriscape designer Judith Phillips and displays by 16 green vendors.

(Photos by Randy Montoya)



- The 3 is at Sandia snipping and receiving Department
- E-Invoicing Saves Money and Paper
- Lockheed Martin Today
- Recycling category**
- P2 Tent Recycling at Reapplication
- Metal and Concrete Recycling at Sandia/New Mexico Rocket Sled Track Test Facility
- Tech Library Reduces its Footprint, Physically and Ecologically
- Nuclear Surety Training

Awareness Campaigns

AMERICA RECYCLES DAY NOV. 15TH



Why It's Important

Our shared responsibility to preserve resources for future generations.

Last year the amount of energy saved from recycling cans, plastic, glass, newsprint and cardboard in the U.S. was equivalent to any one of the following:

- Electricity consumed by 17.8 million Americans in one year.
- Gasoline used in almost 11 million passenger automobiles in one year.

How It Works: 3 Key Components

1. Collection:
 - Recyclables don't get to the Landfill
2. Manufacturing:
 - Use of recycled materials
3. Buying:
 - Close the Loop
 - Buy Products with Recycled Content

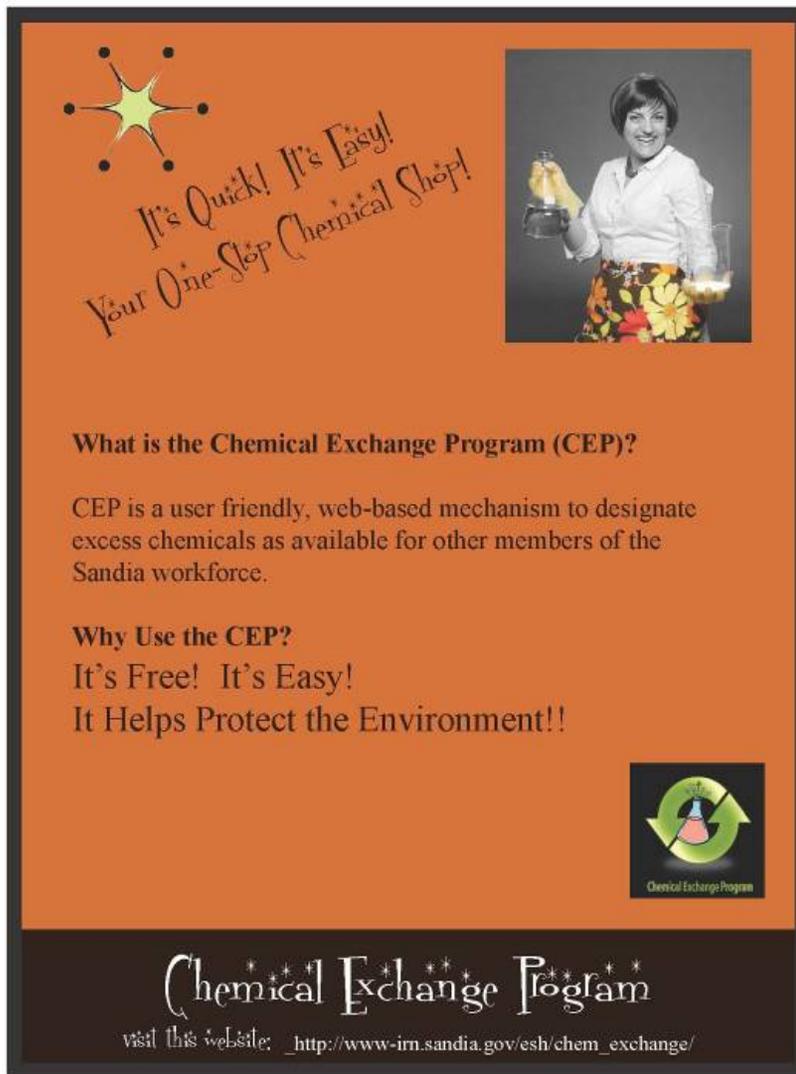
**IT ALL
COMES
BACK TO
YOU**

Source: National Recycling Coalition, 2007

**Pollution Prevention
America Recycles Day,
Pollution Prevention
Week**

Awareness Campaigns

Chemical Exchange Program



*It's Quick! It's Easy!
Your One-Stop Chemical Shop!*



What is the Chemical Exchange Program (CEP)?

CEP is a user friendly, web-based mechanism to designate excess chemicals as available for other members of the Sandia workforce.

Why Use the CEP?

It's Free! It's Easy!
It Helps Protect the Environment!!



Chemical Exchange Program

Chemical Exchange Program

visit this website: http://www-irm.sandia.gov/esh/chem_exchange/

Awareness Campaigns – Energy Management Program



- **Energy Awareness Month (October)**
- **Lights Out Campaign**
- **E-tip of the Week**
- **Monthly Energy Bulletins**

Nontraditional Communication Tools



- Environmental Message Line
505-284-9883



Electronic Trailer

- Windmasters
- Tickers



Outreach Challenges

- It's *hard* to fill up the Steve Schiff!
- In a sea of stuff, how do you make your stuff

STAND OUT?

- Public concerns about Sandia's legacy waste.



Workforce attendance at an EMS Lecture Series event

Outreach *Success Story*

**“Get Rid of It” website awareness campaign –
March 2008**



Yikes! Now I've done it. I should have gone to the "Get Rid of It" website for proper handling of explosive materials.

get
Rid of It

The Get Rid of It website provides useful information for the disposition of materials from around Sandia. Just visit <http://www-im.sandia.gov/getridofit/>.

Get Rid of It Awareness Campaign



...go to the "get rid of it" website for proper handling and disposal of new and used chemicals!

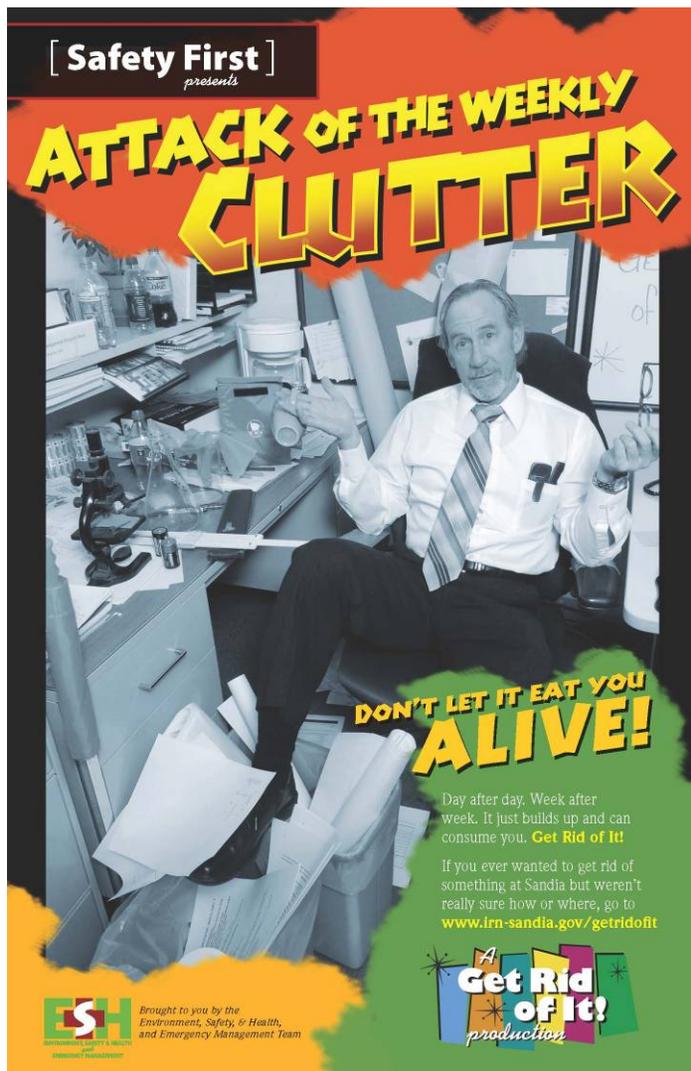
GET
Rid of It

The Get Rid of It website provides useful information for the disposition of materials from around Sandia. Just visit <http://www-irm.sandia.gov/getridofit/>.

The advertisement features a woman in a white lab coat and yellow gloves holding two beakers. The background is red with a white speech bubble and the 'GET Rid of It' logo. The logo includes the word 'GET' in large letters above a stylized figure holding a sign that says 'Rid of It'.

- What is the Get Rid of It website?
- Marketing: Table Toppers, Safety First, Daily News Blurbs

Get Rid of It Awareness Campaign

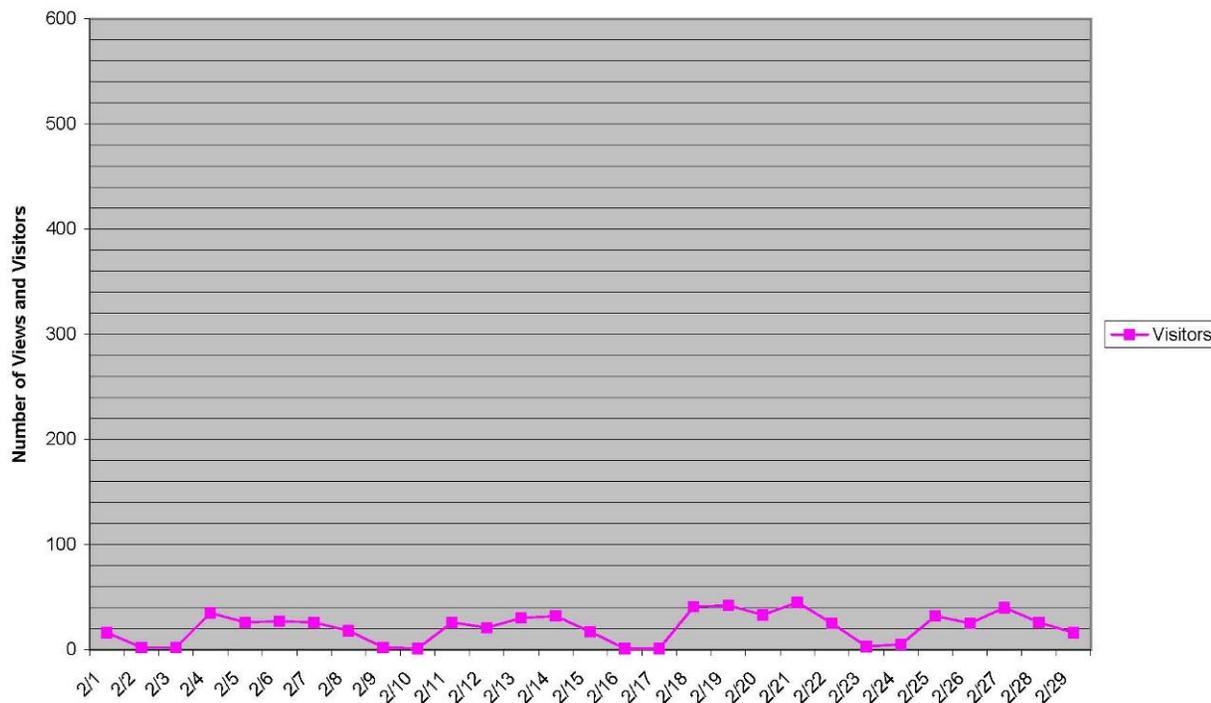


Safety First Posters –
posted lab wide

What was the result of all
of this
advertising?

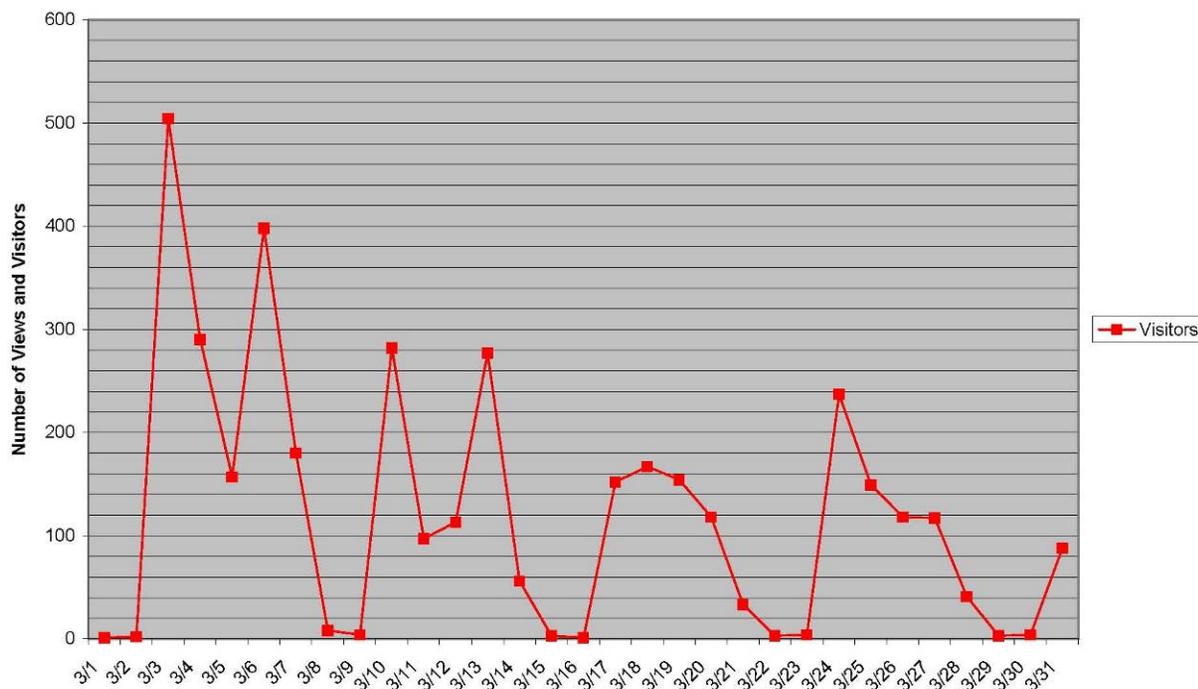
Get Rid of It Awareness Campaign

DAILY VISITORS TO SITE THE MONTH BEFORE CAMPAIGN



Get Rid of It Awareness Campaign

DAILY VISITORS TO THE SITE THE MONTH OF THE CAMPAIGN



Success Story – Tips!

- **Sandia Daily News weekly environmental tips often promote questions and comment**
- **One comment led to e-mail chain asking Sandia to stop the distribution of a hardcopy, glossy paper monthly publication.**
- **Result: With the help of Pollution Prevention and a Line organization, over 11,000 copies per month no longer printed. Publication can be read electronically!**

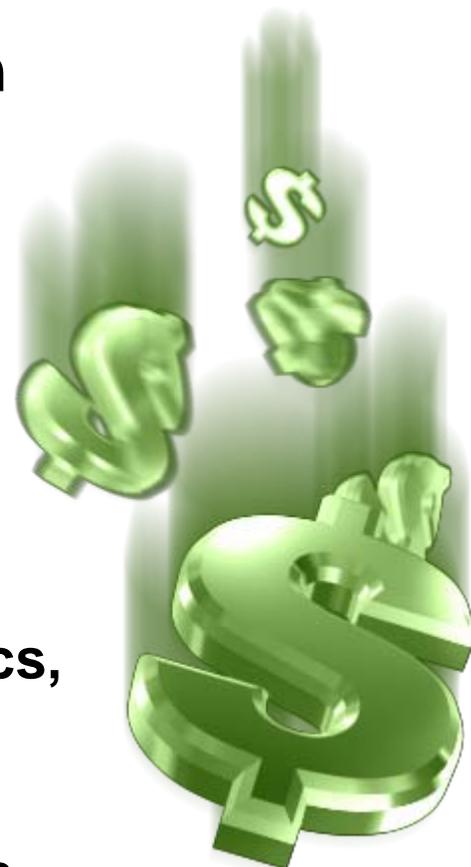
ISO 14001 and Communication

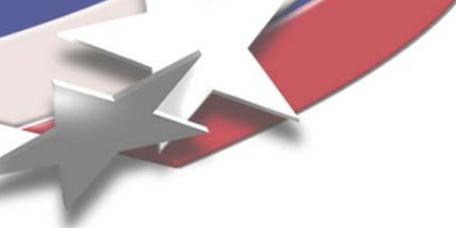
ISO provides guidance to help organizations obtain ISO 14001 Certification – this includes guidance on COMMUNICATION

ISO Communication included a new visitor badge, a letter to vendors, a brochure for visitors and an internal campaign

The “Beer Budget” in Action

- **In these times of budget cuts, Sandia continues to run a top notch outreach program by:**
 - **utilizing corporate resources and communication tools that are free**
 - **taking advantage of grants and working with non-profits who can receive those grants**
 - **training personnel and encouraging outreach team to be proficient in graphics, written and verbal communications, and marketing (Do-it-Yourself!)**
 - **collaborating (sharing costs) with others on-site (Kirtland Air Force Base, Facilities)**





AWARDS & KUDOS

ISO 14001 Audit in May 09 – Sandia’s Communications and Outreach are a best practice and the best “Communications Program the auditors have ever seen!”

2008 White House Closing the Circle Awards - Honorable Mention

Thank you for your time!
Please feel free to contact me at kmwagne@sandia.gov



Members of the Environmental Management System Team

Questions?

