

Blue Ribbon Commission on Management and Safety - II

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Interim Summary

NIST

**National Institute of
Standards and Technology**

Technology Administration
U.S. Department of Commerce



Blue Ribbon Commission II

Original Commission issued five core findings:

1. Safety is not a core value at NIST.
2. Safety is not integrated with the conduct of operations in a meaningful way across organizational units.
3. NIST has not benchmarked safety protocols and performance against similar organizations with strong safety cultures.
4. NIST is plagued by a serious lack of resources for safety.
5. The staff is eager, willing, and ready to embrace a safety culture.

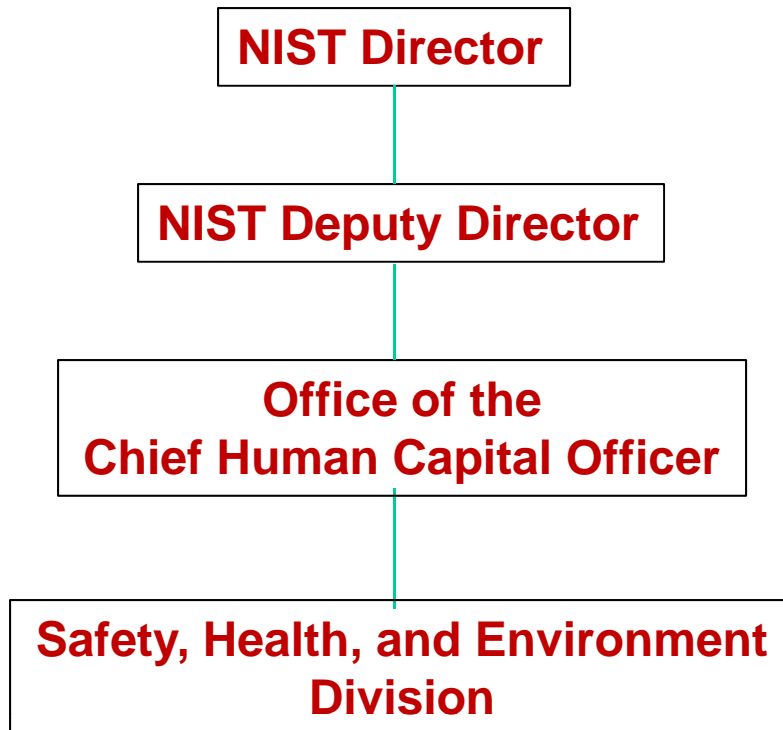
NIST Safety Goal

All accidents are preventable – for everyone who works for, works at, or visits NIST.

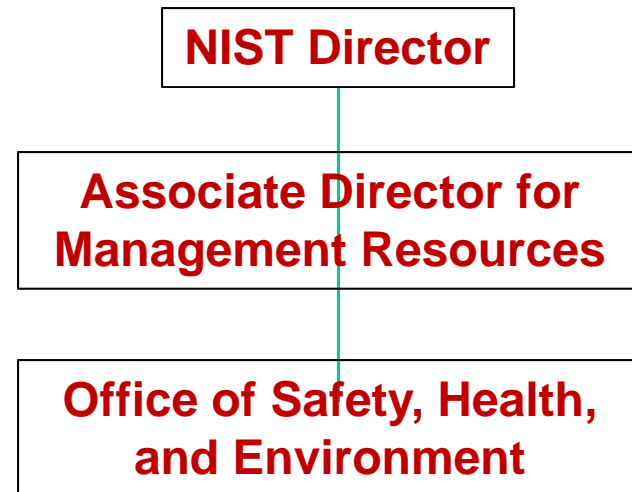
- Driven by our fundamental value that our staff really are our most essential asset.
- It must apply to everyone: NIST employees, associates, contractors, guest workers, facility users, and visitors.
- This is about our work. (This is about doing things right, not about not doing things.)
- This is a real, measurable goal.

Change in Organizational Location

OLD

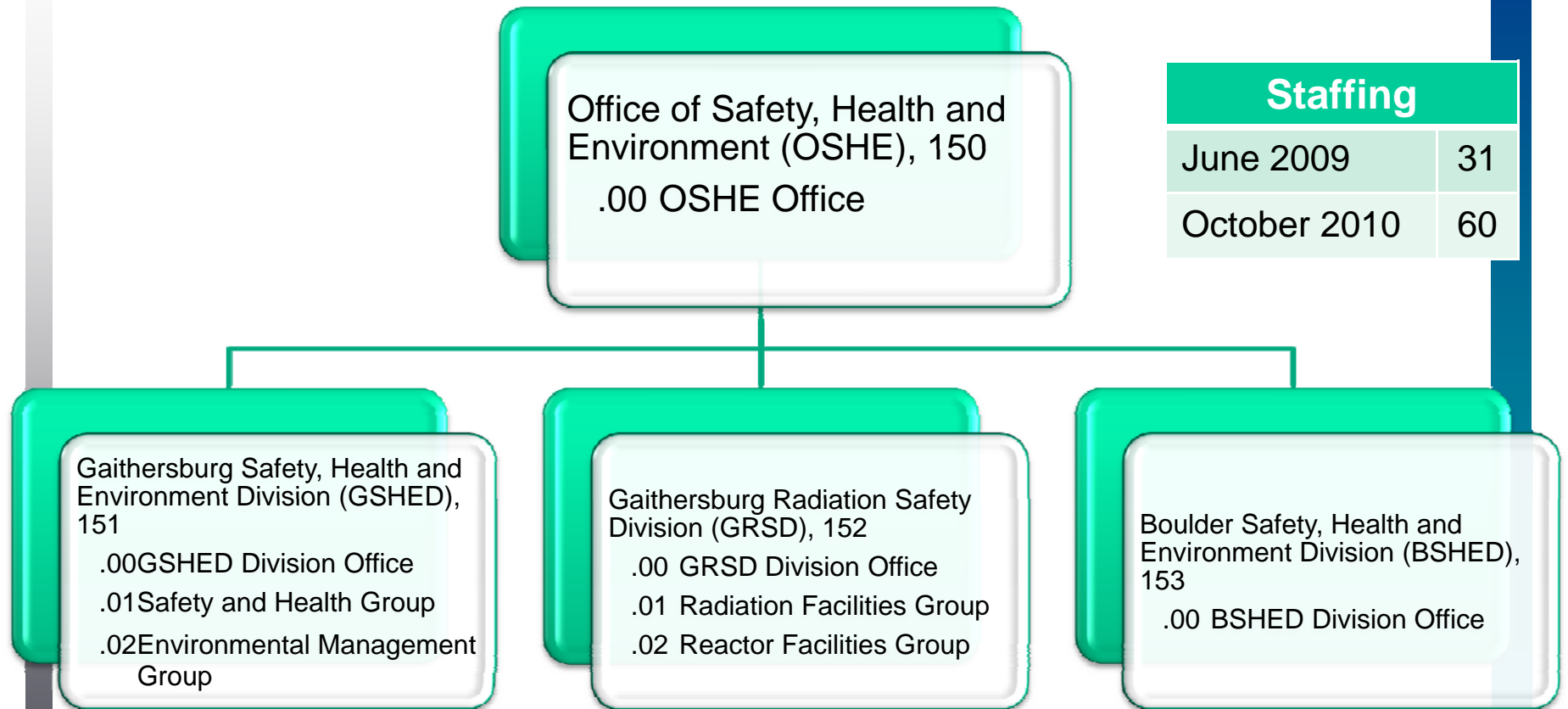


NEW



New Organizational Structure

Chief Office 15



By the numbers

SHED now OHSE

157% increase in budget

31 people increase to 60

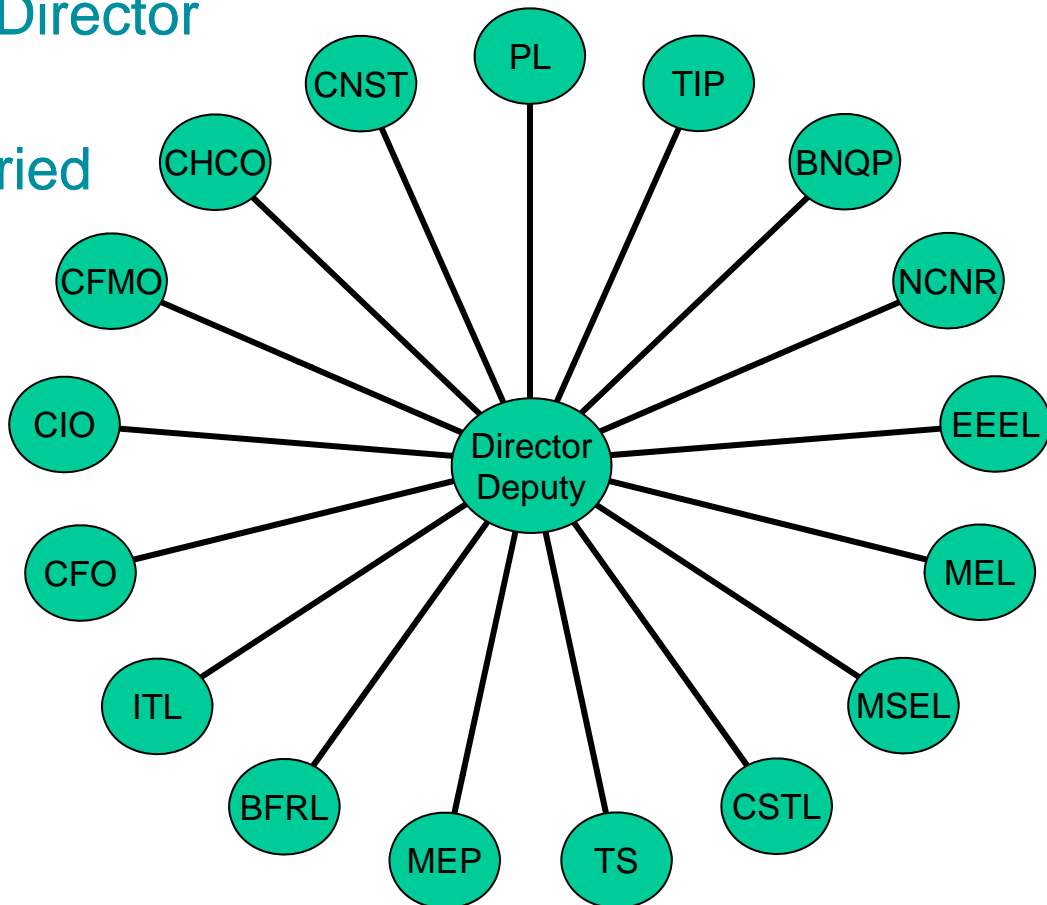
Many serious professionals added

Large enough now to respond to requests (eg. for new safety course) and hence build respect in eyes of labs
and hence build res

Previous Organization Structure

“Sun & Planets”

- No clear paths for responsibility
- Instability when Director position vacant
- Safety Office buried



New Organization Structure

Two Phases:

1. Top level creation of
Assoc. Director
Positions – 5/18/2010

2. Laboratory Structure
– 7/14/2010



Safety Program Development

Programs already developed or revised include:

- Hazard analysis and control
- Incident reporting and investigation
- Management observation process
- Chemical container labeling
- Laboratory chemical storage
- Ionizing radiation safety
- Handling of dispersible engineered nanomaterials (DENMs)
- Environmental management system
- Environmental compliance: industrial wastewater, storm water, air, hazardous waste accumulation
- Medical surveillance

New Program on Handling of DENMs

100 labs in 5 OUs

Staff-initiated and -led effort with OSHE participation

NIOSH field team visit to observe and characterize NIST practices and processes

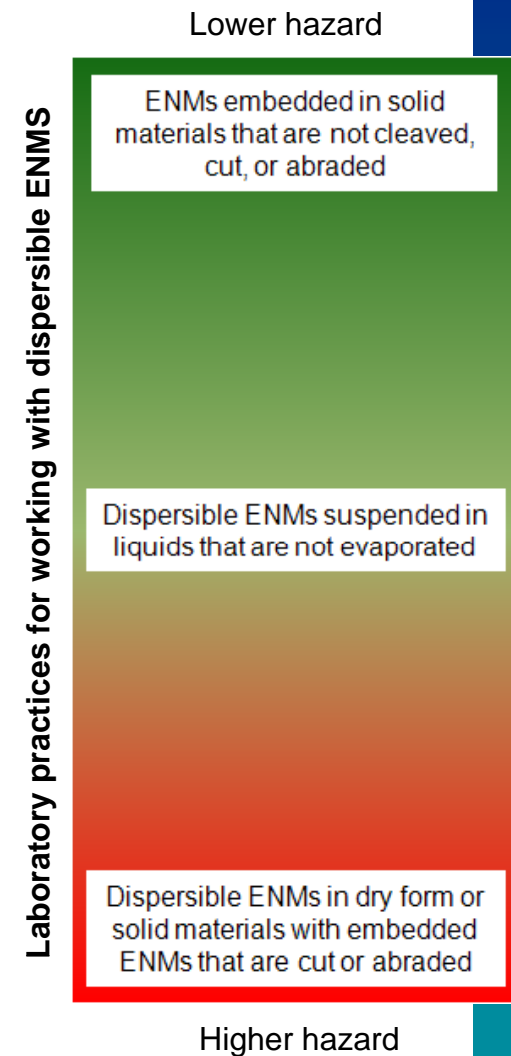
- “In general most current lab practices and engineering controls are effective at minimizing exposure.”

Proactive safety and health approach that defines all DENMs as hazardous

- NIOSH, OSHA, and EPA have provided recommendations only

Minimized possibility of exposure and/or environmental release of DENMs through:

- Engineering and administrative controls
- Use of personal protective equipment



Safety Assistance Ticketing System

SATS will enable OSHE to:

- Manage customer requests and issues
- Develop a knowledge base for resolving common problems
- Identify weaknesses in the NIST safety management system
- Evaluate and improve its own performance


The screenshot shows the NIST Safety Assistance Ticketing System (SATS) web interface. The header includes the NIST Safety logo, a search bar for employees, and navigation links for Home, About Us, Services, Topics, Training, Policies, Reporting, News, and Committees. The main content area is titled "Safety Assistance Ticketing System" and features a "SATS" sidebar with links for "My Tickets" and "Open a Ticket". The "Open a Ticket" section prompts users to enter requested information. Fields include: Email (jsmith@nist.gov), Location (NIST-Gaithersburg), Organization (15) Office of Safety, Health and Environment, Division (151) Gaithersburg Safety, Health and Environment, Reason for opening ticket (Requesting an indoor air quality survey of three office spaces located in Bldg 301, rooms B120, B122, and B124), and Urgency (Low (resolution acceptable within 3 to 10 business days)). A red asterisk indicates required fields. An "Open Ticket" button is at the bottom.


- Pilot study conducted in Sept 2010 for GSHED
 - Average of 35 tickets/week
 - Average of 75% closed on same day

NISTSafety Find Employee Go
 Safety A to Z Index | Contacts | Inside NIST | Bould

Home | About Us | Services | Topics | Training | Policies | Reporting | News | Committees

Safety Areas
 Environmental Management
 Fire and Life Safety
 Health Unit
 Industrial Hygiene
 Occupational Safety
 Radiation Safety
 Safety Area Contacts

Emergency Numbers

 GAITHERSBURG - 2222
 BOULDER - 7777

Occupational Injury or Illness?


Safety Assistance Ticketing System

SATS
 My Tickets
 Open a Ticket

My Tickets

Open Tickets

Sort by: | Group by:

Ticket No.	Date Opened	Urgency	Group Assigned	Assigned To
TG-00019	09/18/10	Low	IH	Dave Hygiene

Closed Tickets


Sort by: | Group by:


There are no items to show in this view.

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Occupational Injury or Illness?


Safety Assistance Ticketing System


SATS
 My Tickets
 Open a Ticket


Ticket No. TG-00019
 Date Opened 9/18/2010 9:40 AM
 Date Closed Not Closed
 Name Joe Smith
 Email joe.smith@nist.gov
 Location NIST - Gaithersburg
 Organization (15) Office of Safety, Health, and Environment
 Division (151) Gaithersburg Safety, Health, and Environment
 Reason for opening ticket Requesting an indoor air quality survey of three office spaces in Bldg 301, rooms B120, B122, and B124.
 Urgency Low
 Ticket Origin Safety website
 Remedy/Resolution
 Group Assigned Industrial Hygiene
 Assigned To Dave Hygiene
 Assigned Email dave.hygiene@nist.gov
 Assigned Telephone (301) 975-1234
 No.
 Attachments

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Occupational Injury or Illness?


Safety Assistance Ticketing System

SATS
 My Tickets
 Open a Ticket

Ticket No. TG-00019
 Date Opened 9/18/2010 9:40 AM
 Date Closed 10/05/2010 1:35 PM
 Name Joe Smith
 Email joe.smith@nist.gov
 Location NIST - Gaithersburg
 Organization (15) Office of Safety, Health, and Environment
 Division (151) Gaithersburg Safety, Health, and Environment
 Reason for opening ticket Requesting an indoor air quality survey of three office spaces in Bldg 301, rooms B120, B122, and B124.
 Urgency Low
 Ticket Origin Safety website
 Remedy/Resolution Three indoor air quality surveys were conducted for the rooms requested; these were performed on Sept 27 - 29. The results of the surveys were compiled in a single report. The report was distributed to J. Smith and his supervisor. Both were satisfied with the results.
 Group Assigned Industrial Hygiene
 Assigned To Dave Hygiene
 Assigned Email dave.hygiene@nist.gov
 Assigned Telephone (301) 975-1234
 No.
 Attachments [IAQ Survey_151_Bldg 301_100410.doc](#)

Consequence of success

A lot of construction and renovation going on ...

Stella and team have integrated safety into those activities

Everything from

Selection of contractors

Sign-off on projects, safe to re-occupy

Two big projects just completed (Boulder PML lab, expansion at Gaithersburg)

One major lost time incidence in each (not bad in 18 months)

Prioritization of facilities safety infrastructure SCMMR

\$31m, \$14m, \$20m fire-alarms, emergency lighting, electrical outlets and wiring, air balancing, eye washing, safety showers... water proofing

\$180 m ARRA about \$20m for upgrades fume hoods, lab lighting

Consequence of success & historical neglect

Boulder

New precision measurement lab \$120m Feb 2012

Renovation Building 1 \$84m FY2011 pending funding

Gaithersburg

Plan for revitalization of General Purpose Labs

Seven of the GPLs,

ten years \$500m (initial planning funded for FY10)

- Safety will be “built in”

Website and Safety Contacts

The screenshot shows the NIST Safety website home page. At the top, there is a search bar for employees and a navigation menu with links for Home, About Us, Services, Topics, Training, Policies, Reporting, News, and Committees. The main content area is titled "What's New in NIST Safety" and features several news items: "NIST Launches IRIS", "NIST Health & Safety Policy Statement", "Lactation Room is Open", and "Radiation Safety Refresher Training". Below this, there are four sections: Alerts, Incidents, Notices, and Announcements, each with a "View All" link. On the left sidebar, there are sections for "Safety Areas" (listing Environmental Management, Fire and Life Safety, Health Unit, Industrial Hygiene, Occupational Safety, Radiation Safety, and Safety Area Contacts), "Emergency Numbers" (Gaithersburg - 2222, Boulder - 7777), "Occupational Injury or Illness?", "Safety Assistance" (with a "Click Here for Information" link), and "Quick Links". At the bottom of the sidebar, there is a "Related Resources" section with links to Chemical Inventory, Federal Safety News, OU Safety Contacts, OU Safety Pages, Emergency Safety, Emergency Services, and DOC Occupational Safety & Health.

This screenshot shows the "Safety Contacts for Programs and Services - Gaithersburg" page. It features a sidebar on the left with navigation links for Safety Areas, Emergency Numbers, Occupational Injury or Illness?, Safety Assistance, and Quick Links. The main content area is titled "Safety Contacts for Programs and Services - Gaithersburg" and includes a search bar set to "radiation". Below the search bar, there are two columns of "OSHE Safety Areas": Environmental Management, Fire and Life Safety, General, and Health Care Services; and Industrial Hygiene, Occupational Safety, Radiation Safety, and Web Development. A "View All Safety Areas" link is also present. The central part of the page is a table with columns for "Safety Area", "Topics or Services", and "Safety Contact". The table lists various radiation safety topics and their corresponding contacts. At the bottom of the table, it states "Showing 1 to 12 of 12 entries (filtered from 104 total entries)". A red arrow points to the "Safety Contact" column header.

Safety Area	Topics or Services	Safety Contact
Occupational Safety	Non-ionizing radiation	Edna Tobares
Radiation Safety	Radiation Safety Training	Dave Brown, Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Radiological Emergencies (Spills, Releases, Personnel Exposure)	Dave Brown, Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Radiation surveys	Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Radioactive Materials Inventory	Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Radiation Dosimetry	Dave Brown, Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Lost / Found radiation sources	Dave Brown, Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Shipping and receiving of radioactive material	Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Radioactive waste disposal	Dave Brown, Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Research Reactor Facility (NCR)	Dave Brown, Tim Mengers, Tom O'Brien, Jim Tracy
Radiation Safety	Acquisition and use of radioactive materials	Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy
Radiation Safety	Acquisition and use of X-ray machines	Miles McCord, Tim Mengers, Tom O'Brien, Janna Shupe, Jim Tracy

Sorted by "keyword"

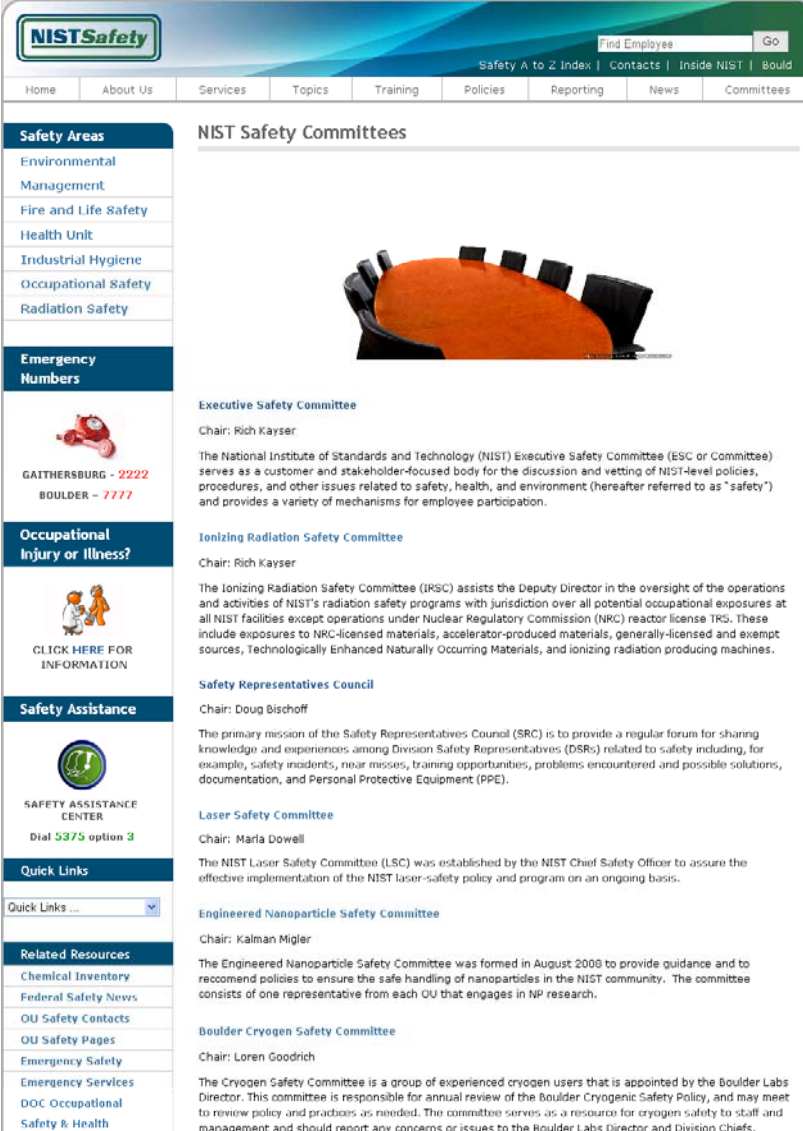
Engagement

Executive Safety Committee

Safety Representatives Council

Staff-initiated safety committees

Staff participation in the
development of NIST safety
programs



The screenshot displays the NIST Safety website interface. At the top, there is a navigation bar with the NIST Safety logo, a search box for employees, and a menu with links to Home, About Us, Services, Topics, Training, Policies, Reporting, News, and Committees. The main content area is titled "NIST Safety Committees" and features a large image of a round orange table with black chairs. Below the image, several committees are listed with their respective chairs and descriptions:

- Executive Safety Committee**
Chair: Rich Kayser
The National Institute of Standards and Technology (NIST) Executive Safety Committee (ESC or Committee) serves as a customer and stakeholder-focused body for the discussion and vetting of NIST-level policies, procedures, and other issues related to safety, health, and environment (hereafter referred to as "safety") and provides a variety of mechanisms for employee participation.
- Ionizing Radiation Safety Committee**
Chair: Rich Kayser
The Ionizing Radiation Safety Committee (IRSC) assists the Deputy Director in the oversight of the operations and activities of NIST's radiation safety programs with jurisdiction over all potential occupational exposures at all NIST facilities except operations under Nuclear Regulatory Commission (NRC) reactor license TRS. These include exposures to NRC-licensed materials, accelerator-produced materials, generally-licensed and exempt sources, Technologically Enhanced Naturally Occurring Materials, and ionizing radiation producing machines.
- Safety Representatives Council**
Chair: Doug Bischoff
The primary mission of the Safety Representatives Council (SRC) is to provide a regular forum for sharing knowledge and experiences among Division Safety Representatives (DSRs) related to safety including, for example, safety incidents, near misses, training opportunities, problems encountered and possible solutions, documentation, and Personal Protective Equipment (PPE).
- Laser Safety Committee**
Chair: Maria Dowell
The NIST Laser Safety Committee (LSC) was established by the NIST Chief Safety Officer to assure the effective implementation of the NIST laser-safety policy and program on an ongoing basis.
- Engineered Nanoparticle Safety Committee**
Chair: Kalman Migler
The Engineered Nanoparticle Safety Committee was formed in August 2009 to provide guidance and to recommend policies to ensure the safe handling of nanoparticles in the NIST community. The committee consists of one representative from each OU that engages in NP research.
- Boulder Cryogen Safety Committee**
Chair: Loren Goodrich
The Cryogen Safety Committee is a group of experienced cryogen users that is appointed by the Boulder Labs Director. This committee is responsible for annual review of the Boulder Cryogenic Safety Policy, and may meet to review policy and practices as needed. The committee serves as a resource for cryogen safety to staff and management and should report any concerns or issues to the Boulder Labs Director and Division Chiefs.

The left sidebar of the website contains several sections:

- Safety Areas**: Environmental Management, Fire and Life Safety, Health Unit, Industrial Hygiene, Occupational Safety, Radiation Safety.
- Emergency Numbers**: GAITHERSBURG - 2222, BOULDER - 7777.
- Occupational Injury or Illness?**: A link to "CLICK HERE FOR INFORMATION" with an image of two people.
- Safety Assistance**: SAFETY ASSISTANCE CENTER, Dial 5375 option 3.
- Quick Links**: A dropdown menu.
- Related Resources**: Chemical Inventory, Federal Safety News, OU Safety Contacts, OU Safety Pages, Emergency Safety, Emergency Services, DOC Occupational Safety & Health.

Question that worry Tony

Audit function

who will do that? Internal or external?

OU?

OSHE?

Dept Commerce?

Cf. Dept of Energy

What does success look like?

No clear articulation among Lab Directors.

(Tom Young: people come to NIST to see how safety is done)

Still missing two associate directors, vital I culture change

Three accidents (anecdotal)

Chemical cloud on physics loading dock

Welding issue in neutron facility

Hazardous gas issue in NanoFab facility (22 first responder trucks)

Questions?

NIST

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Standards and Technology**

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