VCAT Safety Briefing
October 2022

NIST | NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

- ❑ Day of event response, safety plan to secure site, inform OSHA, serve as POC for OSHA investigation

- ❑ Lead NIST safety incident investigation and root cause analysis team
  - ➢ Fact-finding phase
    - • Document incident site
    - • Review safety-related documents, files, and communications
    - • Perform interviews with relevant staff
    - • 3rd party FE modeling and failure analysis of pertinent structural components
  - ➢ Analyze circumstances of event to determine contributing and causal factors, root cause(s)
  - ➢ Develop corrective action plan with input from NIST Executives to ensure depth, breadth, and sustainability

Incident Reporting and Investigation System (IRIS)

Capturing the information necessary for NIST to successfully address systemic safety issues

REPORT AN INCIDENT   REPORT A NEAR MISS   CREATE AN INVESTIGATION
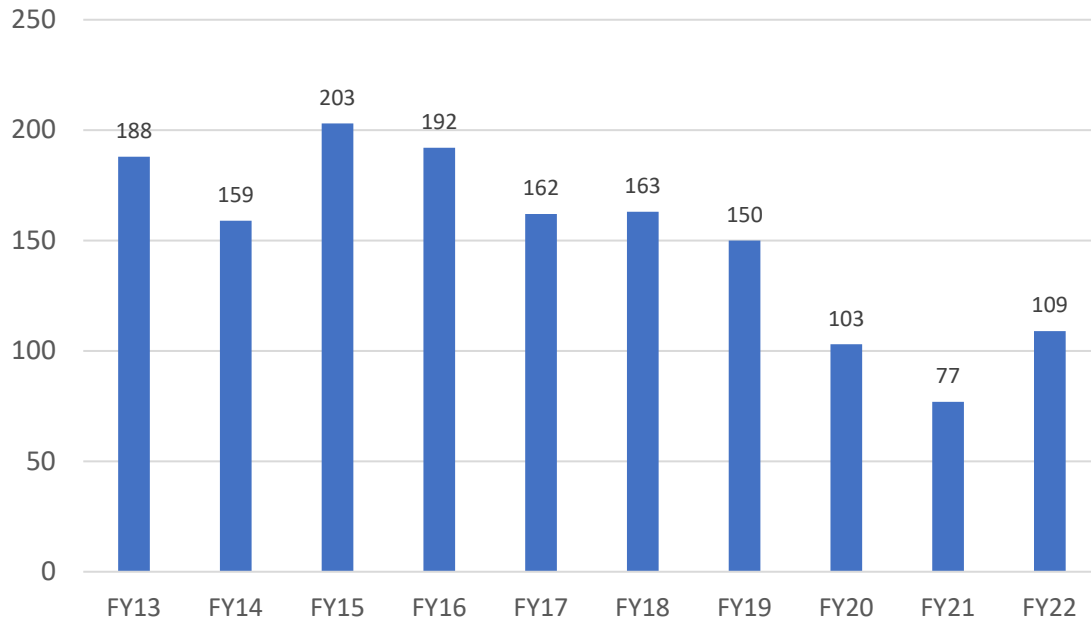
Health and Safety

Recent Safety Incidents

Fall from Partial Collapse of Research Structure During Demol...

Visitor bruises hand after bumping test apparatus

Work Travel-Related COVID-19 Case

Missing required PPE at a cleanroom wetbench

Read More

Incidents and Near Misses (FY22)

IRIS Cases FY13 - FY22

Reduce reporting reflects reduced staffing

Incident and Near Miss Type	Number of Cases	OSHA Recordable Cases
Injury	22	7
Illness	36	46*
Near Miss	23	
Property Damage	12	
Contamination by Radioactivity	2	0
Spill/Release	6	
Exposure	2	0
Other	6	0
Total Cases FYTD	**109**	53

*Includes 42 work related COVID cases. OSHA requires workplace transmission of COVID to be recorded when other standard recording criteria are met (e.g., medical treatment beyond first aid, days away)

Incident Trends: OSHA Recordables, TRC, DART (FY06-22)

NIST

Injuries

Employee Strains Back While Lifting Pipe*
Employee Suffers Fractured Foot in Fall on Uneven Ground*
Employee Injured in Encounter with Campus Geese*
Employee Injured by Elevator Door
Employee Cut Using Knife to Open Box*
Laceration to Three Fingers While Cutting Hose
Fatal Fall from Height

Illnesses

42 COVID workplace transmission cases*
Employee experiencing neck and back pain teleworking*
Employee has heat rash/allergic reaction*
Employee experiences occupational hearing loss

*DART cases

RC and DART without
COVID transmission cases

COVID Protocol Changes

COVID-19 PROTOCOLS

1. Meet Daily Health Screening criteria.
2. Practice good hygiene.
3. Wear a mask when required following close contacts or recovery from COVID.

DURING HIGH COMMUNITY LEVELS
- Well-fitting mask use is required
- Social distancing is encouraged

DURING MEDIUM COMMUNITY LEVELS
- Mask use is prudent but optional
- Social distancing is encouraged

DURING LOW COMMUNITY LEVELS
- Mask use is prudent but optional
- Social distancing is optional

- COVID protocols are tied to CDC Community Levels; posted in buildings, on web pages

- Return to work following COVID infection protocols are based on CDC guidance

- Following close contacts, staff and visitors may enter campuses but must wear a better performing mask, practice social distancing, and self-monitor for symptoms (10 d)

- Staff encouraged to take appropriate precautions based on personal risk

- There are no occupancy restrictions

- NIST Gaithersburg offers COVID booster and flu shots to federal employees

COVID Case Management

- New COVID reporting application for staff to obtain campus access requirements

- SCIRA allows us to monitor numbers of cases and work-related close contacts

- OSHA requires workplace transmission of COVID to be recorded when other standard recording criteria are met (e.g., medical treatment beyond first aid, days away)

- NIST determines whether COVID transmission is work related, e.g., exposed while on official travel or at-work, known close contacts
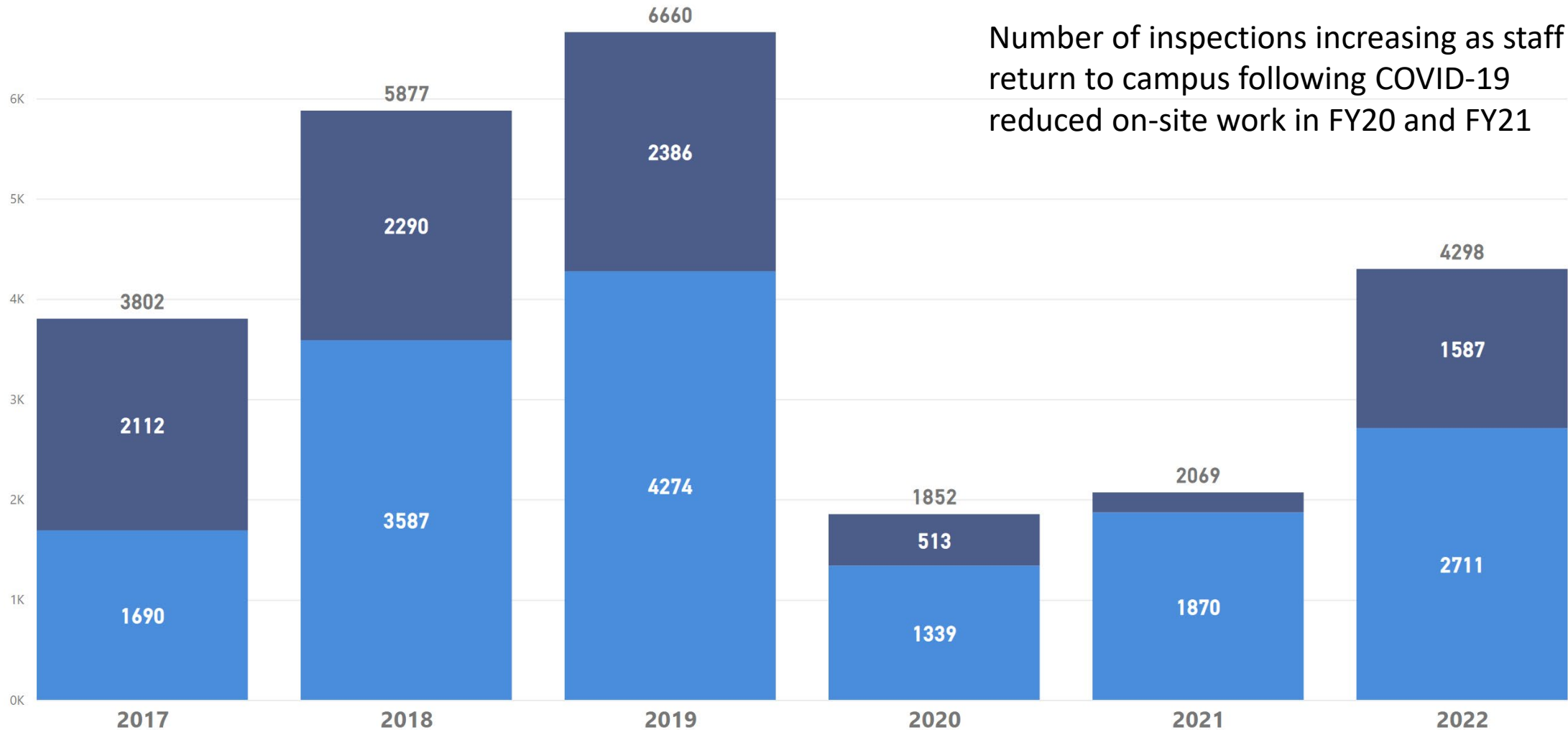
STAFF COVID-19 REPORTING APPLICATION

On-site	Gaithersburg	Boulder	Off-site work
COVID Cases	316	92	53
Work-related transmission	15	3	2

1,434 staff have reported testing positive for COVID-19

Ten Most Frequent Hazards Found During Inspections During FY22

Bar chart values (left to right):
- Update General Door Sign: 350
- Chemical-Labeling: 137
- WW Surface-STF: 127
- Chemical-Storage: 96
- Housekeeping All: 87
- Chemical-Inventory: 85
- Compressed Gas-Inventory: 69
- Electrical-DaisyChn: 65
- Electrcial-Panel Clearance: 63
- WW Surface-Lighting: 61
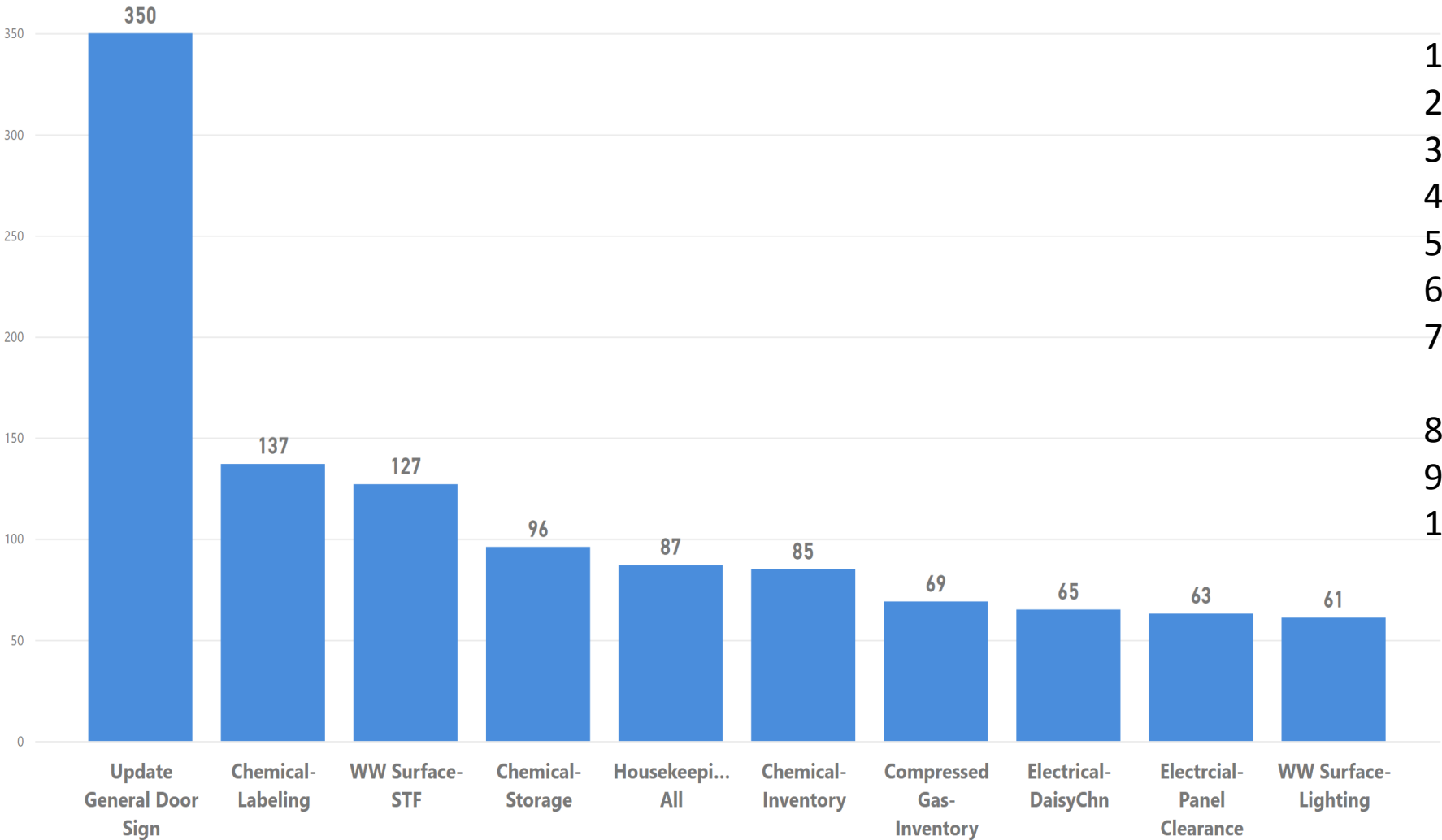
Top 10 Deficiencies Closed FY22

1. Update General Door Sign (308)
2. Chemical Labeling (179)
3. Housekeeping (118)
4. Slips, Trips, and Falls (110)
5. Chemical Inventory (64)
6. Compressed Gas Inventory (64)
7. Eyewash/Safety Shower Inspection (63)
8. Electrical Daisy Chain (60)
9. Electrical Panel Clearance (55)
10. Compressed Gas Storage (54)

- 2420 deficiencies (FY22)
- 1713 closed (FY22)

- 330 open deficiencies from previous 3 FYs (6556 total)

NCNR Support

➢ NCNR Director and CSO co-chair NIST NCNR Enforcement Actions Support Team; OSHE RSO serves as a member

➢ CSO *ex officio* position on the TR-5 Safety Evaluation Committee (SEC) by charter

➢ OSHE staff participation in SEC subcommittees

  ➢ Qualification and Training Review

➢ OSHE safety embed in NCNR, position posted

➢ Participation in committees formed to meet CO

  ➢ Safety Culture Program (CSO)

  ➢ Employee Concerns Program (DCSO)

Safety Management System Directives

FUNDAMENTAL SAFETY (Total, 15 programs)
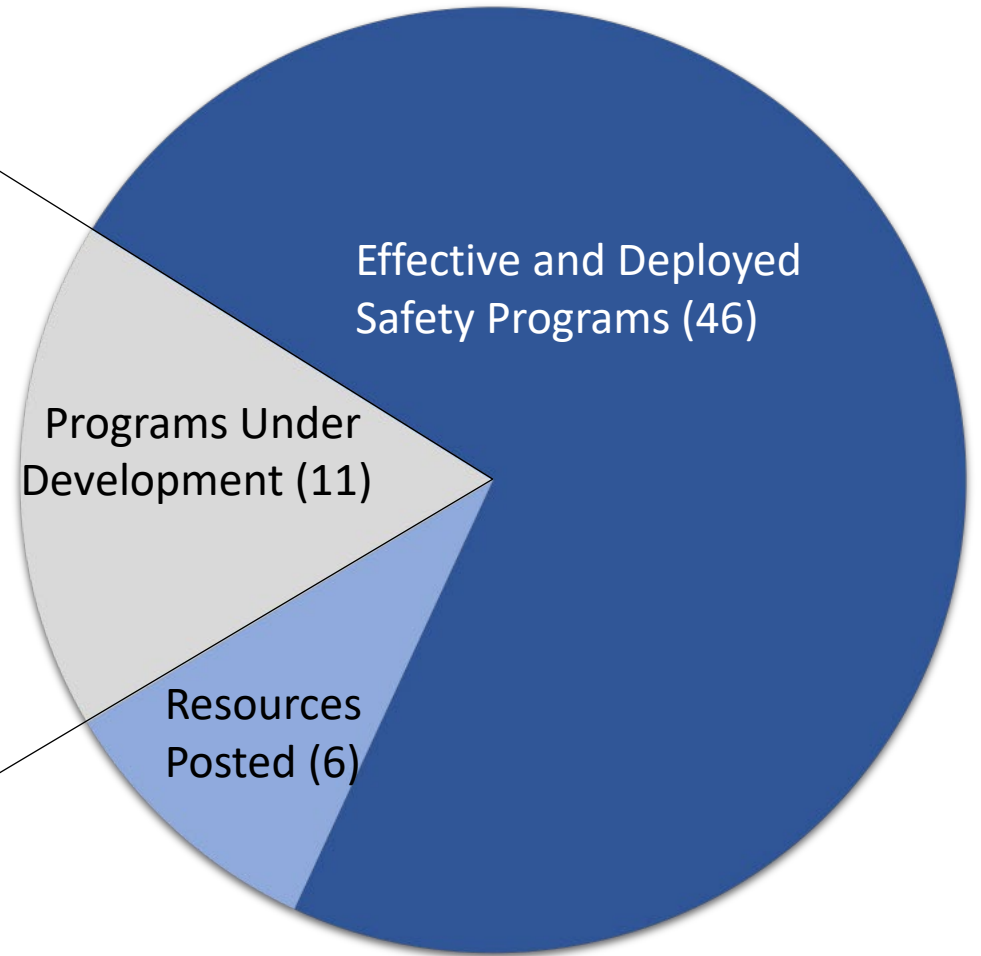
-   Safety Culture
-   Contractor Safety
-   Monitoring Measurements and Assessments
    Change Management
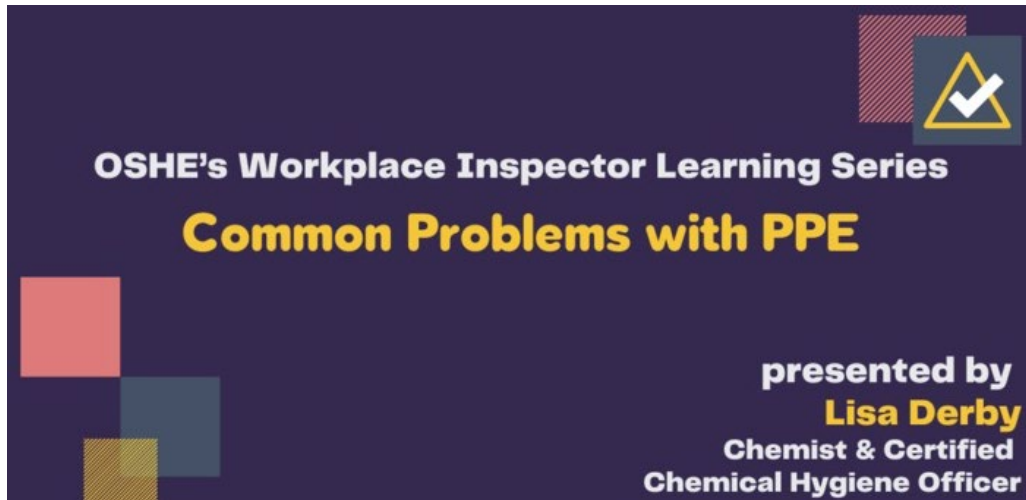-   Corrective and Preventive Actions
-   Documents and Records

TECHNICAL OCCUPATIONAL SAFETY AND HEALTH
(Total 24 programs; 6 resource pages)

-   Electrical Safety (Notice)
-   Walking Working Surfaces (Resource)

ENVIRONMENTAL (Total 14 programs)

-   Gaithersburg Wastewater
-   Boulder Wastewater
-   Stormwater Management

Effective and Deployed Safety Programs (46)

Programs Under Development (11)

Resources Posted (6)

Communications, Focus on Education and Incident Prevention

Workplace Inspector Series:

- Fire Safety Systems for Inspectors

- Walking and Working Surfaces Safety

- Hazardous Waste

Incident-related communications:

- Managers, subscribers notified of posted incidents

- New in FY22: Weekly incident summaries to NIST leadership, color coded for risk level

- Safety Minutes and videos focus on incident prevention (12 communications in FY22)

Communications, by the numbers

13 Safety Minutes (65% open rate)

2 Safety Standard Newsletters (70% open rate)

8 Event notifications (70% open rate)

20 NIST announcements (68.5% open rate)

FY22 initiative to increase traffic to the NIST Safety Intranet: use up from 6,974 to 9,052 visitors and 345,047 to 380,942 pageviews

FY 23 Focus Areas

Safety Culture Program Implementation

- Formal Safety Culture Program approved by ESC October 2022

- Conduct Safety Culture Survey, industry benchmark (Planned Fall 2022)

- Executive Safety and Safety Advisory Committees develop an action plan

Re-Evaluation of Job Hazard Reviews

- Ensure hazard controls are adequate, functional

- Ensure documentation reflects practice

Safety Management System

- Complete remaining directives

- External evaluation of SMS adequacy

- Improve safety data system tools