

OE-3: 2021-04

September 2021

Introduction to the Corporate Safety Performance Dashboard

PURPOSE

The Corporate Safety Performance (CSP) Dashboard allows Department of Energy (DOE) management to select and display a variety of environment, safety, and health (ES&H) metrics to support the analysis of those topics of greatest importance to the user. The CSP dashboard has been developed to support continuous improvement in ES&H performance by extracting real-time data from existing DOE databases and displaying results in a dashboard format, with the ability to present data at the site, program office, or Department-wide level.

BACKGROUND

The Office of ES&H Reporting and Analysis (AU-23) maintains several corporate data systems, including the Occurrence Reporting and Processing System (ORPS) and the Computerized Accident/Incident Reporting System (CAIRS). While each system provides valuable information within its reporting scope, DOE offices have long sought to display key ES&H metrics in a summary or dashboard format to help identify potential performance gaps or improvement opportunities. As an example, in 2012 a team of DOE subject-matter-experts and managers developed a prototype ES&H Corporate Safety Performance Dashboard to display key performance data on a DOE web site. However, the effort was limited by the need to manually update the charts to remain current. The prototype also only displayed pre-defined search results and could not be queried in real time.

The new CSP Dashboard solves these problems through a real-time link to data in ES&H databases, supporting dynamic query and display options to present the latest data in multiple ways.

DISCUSSION

In 2018, AU-23 updated the Nuclear Safety Information (NSI) Dashboard by creating an auxiliary dashboard to collect and sort ORPS data correlating to the revised Order requirements. (See [OE-3: 2017-05](#) for NSI dashboard information). The NSI dashboards include sorting features such as reporting criteria, keywords, and significance categories and reporting levels.

Once DOE customers accessed the NSI, there were requests to establish a dashboard with standardized metrics that represented a broader set of key fundamental ES&H data. This request led to a re-establishment of and major update to the 2012 CSP prototype dashboard.

There are seven CSP dashboard pages:

- ORPS - Program Secretarial Officers (PSOs)
- ORPS - Sites
- ORPS - Keywords and Cause Codes
- Worker Safety (includes data from CAIRS)
- ORPS - Environmental events
- Nuclear Safety information (includes links to the radiation exposure database), and
- Strategic Safety Goals (the most unacceptable outcomes the Department strives to avoid).

Exhibits 1 and 2 show two of those pages.

Exhibit 1: Example of the "ORPS – PSOs" page of the CSP Dashboard



Corporate Safety Performance Dashboard



Report generated 8/5/2021 3:47:55 PM

All AU EE EM FE LM MA NA NE RW SC xx XX

*cancelled occurrences are excluded

FY 2010 FY 2021

ORPS - PSOs
ORPS - Sites
Keywords and Cause Codes
Worker Safety (Injuries/CAIRS)
Environmental
Nuc Safety
Strategic Goals

Field Office: (All) CBFO EMLA GO HQ ID OH ORO OSO RL RP SR UPO

Major Sites for SC

Major Sites for EM

Major Sites for NNSA

All

ORPS - PSOs

PSO Selected: ALL

Selecting a button ("Major Sites" or "All") shows what sites you can choose in the site list below.

Selecting the sites from site list below chooses the site data you see in the graph.

Hold Ctrl or Shift Keys to select Multiple Sites in site list.

Princeton Plasma Physics Lab:PPPL

Pantex Site Office (CAIRS):PSO

Richland Office (CAIRS):RLO

RMOTC

Stanford Linear Accel. Center:SLAC

SLAC Site Office (CAIRS):SLACO

Sandia National Lab:SNL1

Sandia National Lab:SNL2

SNL4

Brookhaven National Lab:BNL

WIPP Project:CAO

Carlsbad Office (CAIRS):CARLSBAD

DOE HQ

DRUM

ETEC:EETC

East Tennessee Technology Park:ETTP

FERMI National Lab:FNAL

Fermilab-South Dakota (CAIRS):FNAL-SD

Fermi Site Office (CAIRS):FSO

Grand Junction Site (CAIRS):GJ

GJO

Hanford Site:HANFORD

Headquarters (CAIRS):HQ

Idaho National Engr. & Envir. Lab:ICP

ORPS Events



Fiscal Year	Total ORPS Events	Nuclear Safety Events	Nuclear Safety Events pre 232.2a	Electrical Safety Events
FY2016	1,019	98	150	173
FY2017	1,014	0	125	128
FY2018	818	99	115	148
FY2019	889	100	142	142
FY2020	864	101	90	699
FY2021	699	90	101	90

High Hazard Events



Fiscal Year	Total ORPS Events	Nuclear Safety Events	Nuclear Safety Events pre 232.2a	Electrical Safety Events
FY2016	114	74	24	28
FY2017	137	82	28	28
FY2018	84	28	28	28
FY2019	87	34	26	28
FY2020	64	28	17	28
FY2021	65	28	12	28

Environmental Events: Keywords 02% High Hazard: Sig Cat 1,2,OE or Reporting Level H
Nuclear Safety Events: Reporting Criteria 3%

Weighted Scores by Year (pre O232.2A)




Fiscal Year	Weighted Score
FY2016	577.5
FY2017	587.4

Weighted Scores by Year (post O232.2A)




Fiscal Year	Weighted Score
FY2017	2.8
FY2018	552.4
FY2019	571.2
FY2020	507.1
FY2021	462.8

Exhibit 2: Example of the “Strategic Safety Goals” page of the CSP Dashboard



Corporate Safety Performance Dashboard



Report generated 8/11/2021 10:48:36 AM

**cancelled occurrences are excluded*

FY 2010 FY 2021

Major Sites for SC
 Major Sites for EM
 Major Sites for NNSA
 All

Selecting a button ('Major Sites' or 'All') shows what sites you can choose in the site list below.

Selecting the sites from site list below chooses the site data you see in the graph.

Hold Ctrl or Shift Keys to select Multiple Sites in site list.

Albuquerque Complex (CAIRS):ABQCMLX
 Ames Laboratory:AMES
 Argonne-East:ANLE
 Argonne Site Office (CAIRS):ANLSO
 Bettis Atomic Power Lab (CAIRS):BAPL
 BC
 BH
 Brookhaven Site Office (CAIRS):BHSO
 BM
 Brookhaven National Lab:BNL
 WIPP Project:CAO
 Carlsbad Office (CAIRS):CARLSBAD
 DOEHQ
 DRUM
 ETEC:ETEC
 East Tennessee Technology Park:ETTP
 FERMILab National Lab:FNAL
 Fermilab-South Dakota (CAIRS):FNAL-SD
 Fermi Site Office (CAIRS):FSO
 Grand Junction Site (CAIRS):GJ
 GJO
 Hanford Site:HANFORD
 Headquarters (CAIRS):HQ
 Idaho National Engr. & Envir. Lab:ICP

ORPS - PSOs
ORPS - Sites
Keywords and Cause Codes
Worker Safety (Injuries/CAIRS)
Environmental
Nuc Safety
Strategic Goals

Field Office: (All) CBFO EMLA GO HQ ID OH ORO OSO RL RP SR UPO

DOE Strategic Safety Goals

PSO Selected: ALL

The table below only shows criteria and years where ORPS events occurred

UNACCEPTABLE OUTCOMES

Rep. Crit.	Metrics	# Reports per Fiscal Year			
		2018	2019	2021	Total
2A(1)	Personnel Safety and Health		1		1
2B(1)	Fires	2		1	3
5B(1)	Ecological and Cultural Resources	1			1
5B(2)	Ecological and Cultural Resources		1	3	4
6C(1)	Radiation Exposure	1			1
Total		4	2	4	10

Occurrences are based on ORPS reports and may be subject to change after a causal analysis is performed.

The above table only includes those Reporting Criteria and Years that appear on ORPS reports, that meet the other dashboard criteria (FY range, PSO, Site, etc.). For example, if FY2020 had no ORPS reports for any of the potential reporting criteria, the column for FY2020 will not be shown.

Potential Reporting Criteria

Code	Description
2A(1)	FATALITY Any occurrence due to DOE operations resulting in a fatality or terminal injury/illness.
2B(1)	FIRE IN A NUCLEAR FACILITY Any fire within primary confinement/containment boundaries of a nuclear facility, except a fire that self-extinguishes in ten minutes or less.
5B(1)	IMPACTS ECOLOGICAL/CULTURAL RESOURCE Any occurrence including releases causing significant impact to ecological or cultural resource for which DOE has responsibility under applicable laws, regulations, and Executive Orders. For example, extensive damage to, or destruction of: (a) Ecologically preserved areas, or pristine or protected wetlands; (b) Threatened or protected flora or fauna or critical habitats; (c) Potable drinking water intake or well usage; or (d) Historical/archeological sites.
5B(2)	EXTENSIVE ENVIRONMENT DEGRADATION Any occurrence, including releases, resulting in extensive environmental degradation (e.g., fish kill; notable loss or relocation of native species; need for interdiction of crop sales; or restriction to human access).
6A(1)	RADIOLOGICAL MATERIAL OFFSITE Identification of radioactive material offsite due to DOE operations/activities that exceeds applicable DOE limits (pursuant to DOE O 458.1, Radiation Protection of the Public and the Environment, current version).
6C(1)	RADIOLOGICAL DOSE Determination of a dose that exceeds the limits specified in 10 CFR Part 835, "Occupational Radiation Protection," Subpart C, "Standards for Internal and External Exposure," or in DOE O 458.1 Chg 3, Radiation Protection of the Public and the Environment, dated 1-15-13, paragraph 4.b(1)(a) [paragraph 2.b(1)(a) of the CRD], "Public Dose Limit."

PATH FORWARD

The Office of ES&H Reporting and Analysis will continue to work with our PSO counterparts to obtain feedback on what ES&H data is most useful to display in the dashboard. Updates will be planned and deployed based on the feedback received.

HOW DO YOU ACCESS THE CSP?

The Corporate Safety Performance Dashboard can be found at:

<https://data.doe.gov/MS/asp/Main.aspx>.

An ORPS UserID and Password are required to access the dashboards. To update your credentials to an expired ORPS account, contact ORPS Support at 800-473-4375, ORPSSupport@hq.doe.gov.

If you don't have an ORPS account, you will need to obtain one by filling out the User Registration Form (PDF), found at:

<https://registration.doe.gov/registration/ORPSRegistration> before acquiring a password and UserID.

SOURCES OF INFORMATION

1. Nuclear Safety Information Dashboards: <https://data.doe.gov/MS/asp/Main.aspx>.
2. Occurrence Reporting and Processing System: <https://orps.doe.gov/>.

Feedback, questions or assistance regarding the CSP, NSI, or this OE-3 document should be directed to Jay Larson at 301-903-9869 or jay.larson@hq.doe.gov.



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