Office of Environment, Health, Safety and Security
Operating Experience Summary

OES 2025-08 November 2025

ORPS Group 10: Gaining Insights from Management Concerns and Issues Reporting

Introduction

Over 26%
of ORPS reports are
self-reported **Group 10** events

Let's look closer at this data set

What are DOE facility managers "concerned" with?

Occurrence Reporting and Processing System (ORPS) Group 10 Management Concerns and Issues reporting allows DOE sites to proactively share experiences and near-miss information, potentially turning these submissions into actionable insights. The data captured can serve as a set of leading indicators, helping prevent future adverse operational events across the DOE Complex.

This Operating Experience Summary (OES) provides a glimpse into events reported under the ORPS Group 10 criteria over the past six years and explores various ways to analyze the data, highlighting potential themes and trends. It includes the total volume of reports, a breakdown by Environment, Safety, and Health (ES&H) category as defined by ORPS Headquarters (HQ) keywords, and a deeper analysis using the Office of Environment, Health, Safety, and Security (EHSS) Data Analytics and Machine Learning (DAMaL) tools to identify patterns, trends, and clusters that may warrant further attention. Finally, the OES also identifies relevant lessons learned shared through DOE OPEXShare. The analysis period of FY2018-FY2025 was selected to align with the implementation of the update to DOE Order 232.2A, *Occurrence Reporting and Processing of Operations Information*, at the start of FY2018. Data prior to this period were excluded due to differing reporting frameworks.

Background

DOE O 232.2A provides a framework for DOE and NNSA organizations to report events that could adversely affect the health and safety of the public or the workers, the environment, DOE missions, or the credibility of the Department. This framework is described in Attachment 2 of the Order and defines 10 Reporting Criteria Groups related to DOE operations. While Groups 1 through 9 are specific to certain high-consequence functional areas [1], Group 10 enables a site or facility to share important information about a broader range of management concerns and issues to raise DOE leadership awareness and benefit other sites across the DOE complex.

The ORPS Group 10 Management Concerns and Issues reporting criteria are:

(1) An event, condition, or series of events that does not meet any of the other reporting criteria but is determined by the Facility Manager or line management to be of safety significance or of concern for that facility or other facilities or activities in the DOE complex.

(2) A near miss to an injury, where something physically happened that was unexpected or unintended AND where no barrier prevented an event from having a reportable consequence (i.e., happenstance was the main reason the event did not result in a reportable injury) and

(3) Any occurrence that may result in a significant concern by affected state, tribal, or local officials, press, or general population; that could damage the credibility of the Department; or that may result in inquiries to Headquarters.

[1] Reporting Criteria Groups 1-9, as per DOE O 232.2A, are (1) Operational Emergencies, (2) Personnel Safety and Health, (3) Nuclear Safety Basis, (4) Facility Status, (5) Environmental, (6) Contamination/Radiation Control, (7) Nuclear Explosive Safety, (8) Packaging and Transportation, and (9) Noncompliance Notifications.

Discussion: Time for a Deep Data Dive!

Start here
* * *
with just the raw numbers

From FY2018-FY2025 there were 7462 overall ORPS notification reports submitted to the ORPS database. Of these 7462 ORPS notification reports, 1964 (**26.3%**) were categorized using the Group 10 reporting criteria. **Table 1** below summarizes the ORPS reports submitted using the 10(1), 10(2) and 10(3) Subgroup criteria for each fiscal year.

Table 1. *Overall ORPS and Group 10 Management Concerns and Issues (MC&I) Reporting from FY2018 – FY2025*

Fiscal Year	Total ORPS Events	10(1) Management Concerns (MCs)	%, 10(1) MCs	10(2) Near Misses (NMs)	%, 10(2) NMs	10(3) Significant Concerns (SCs)	%, 10(3) SCs	Total MC&Is	% of MC&Is of Total ORPS
2018	814	128	15.7%	64	7.8%	2	0.2%	193	23.7%
2019	889	164	18.4%	64	7.2%	2	0.2%	228	25.6%
2020	863	178	20.6%	70	8.1%	0	0.0%	248	28.7%
2021	903	181	20.0%	75	8.3%	3	0.3%	258	28.6%
2022	947	184	19.4%	74	7.8%	0	0.0%	255	26.9%
2023	1103	182	16.5%	78	7.0%	3	0.2%	262	23.8%
2024	1059	194	18.3%	67	6.3%	5	0.4%	266	25.1%
2025	884	186	21.0%	66	7.4%	2	0.2%	254	28.7%
Totals	**7462**	1397	18.7%	558	7.4%	17	0.2%	**1964**	26.3%

Overall, 70 percent of Group 10 events are reported in subgroup 10(1) and have been consistently averaging about 70 percent of Total Management Concerns and Issues year over year. These types of events can be in any area of operations and have been deemed significant enough to be shared and may pose a significant impact to the mission while not meeting other ORPS criteria.

Subgroup 10(2) near miss reporting includes events involving a close call to a personnel injury but it also includes events with an actual low-level injury that did not exceed the more serious ORPS reporting thresholds specified in Group 2, Subgroup A (Occupational Injuries and Exposures). The 7.4% of the 10(2) ORPS events represent about 70 additional potentially serious injuries a year. Examining the types and causes of these incidents can help identify operational vulnerabilities that, if addressed early, can avert more serious consequences.

Subgroup 10(3) specifically focuses on events that may result in significant public concern or damage to the credibility of the Department, but there is insufficient ORPS data to make credible DOE-wide conclusions. This subgroup is therefore not included in the HQ Keyword and DAMaL analyses reported on in this OES document.

Table 2. *Program Secretarial Office (PSO) Management Concerns Reporting FY2018 - FY2025*

PSO	#ORPS	10(1)	10(2)	10(3)	Total MC&Is Reported	% of MC&I of Total ORPS Reported
CR	28	4	9	0	13	46.4%
EE	129	36	23	0	59	45.7%
EM	2468	403	220	4	624	25.3%
FE	88	4	12	1	17	19.3%
LM	27	7	6	5	16	59.3%
NA	3321	687	208	7	899	27.1%
NE	520	100	42	0	142	27.3%
SC	881	156	38	0	194	22.0%
DOE	**7462**	**1397**	**558**	**17**	**1964**	26.3%

Table 2 provides a count of ORPS reports submitted by each PSO, the breakdown of subgroup 10(1), 10(2) and 10(3) ORPS reports, the total number of Group 10 ORPS reports, and the % (percentage) of Group 10 ORPS reports submitted of the total (overall) number of ORPS reports. This table enables each PSO to view its Group 10 reporting in relation to their mission. While the total number of Group 10 reports may indicate reporting culture trends, reviewing report content is key to understanding the issues that meet internal thresholds for concern or learning potential for those making ORPS categorization determinations at DOE field sites. In this OES, we will evaluate the themes of subgroups 10(1) and 10(2) through the use of ORPS HQ Keywords and the DAMaL analytical tools.

ORPS HQ Keyword Analysis

HQ Keywords are a central part of ORPS report metadata, providing a standardized framework to categorize, sort, and analyze operating experience records captured into ORPS. Drawn from a set of over 140 keywords in 14 categories, they enable consistent reporting, reveal trends and recurring issues, and transform individual reports into actionable insights. Each weekday, the EHSS Office of Data Strategy and Performance (EH-23) ORPS Team reviews reported events and assigns keywords using the HQ Keywords Binning and Guidance Criteria (see Attachment 1). ORPS reports may have multiple keywords in the various 14 categories, but all reports have only one Category 12 ES&H keyword that represents the primary concern of the report. **Table 3** below summarizes the breakdown of ORPS Group 10 Events by Category 12 ES&H Primary Keywords.

What are the most frequent "concerns"?

Top Category 12 Keywords in Group 10

Conduct of Operations (12B): **536 events**

Near Miss (12K): **524 events**

Table 3. *ORPS Group 10 Management Concerns Events by Category 12 ES&H Primary Keywords for FY2018-FY2025*

Category 12 Primary Keyword	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Total
12B Conduct of Operations	54	75	80	81	56	51	72	67	**536**
12K Near Miss	50	54	60	75	73	78	63	71	**524**
12E Equipment Degradation	11	19	19	12	20	16	18	13	**128**
12C Electrical Safety	11	11	7	11	8	17	17	17	**99**
12J OS/IH	6	9	13	11	16	13	13	17	**98**
12F Fire Prot./Explosive Safety	16	5	17	11	13	8	13	13	**96**
12I Lockout/Tagout (LOTO)	4	11	6	10	8	11	15	6	**71**
12G Industrial Operations	11	12	16	4	6	4	3	11	**67**
12M Radiological Control	2	5	5	11	8	17	8	10	**66**
12H Injuries	12	7	9	2	5	6	7	7	**55**
12A Authorization Basis	2	4	1	9	9	7	11	4	**47**
12P Shipping Quality Assurance	2	4	1	7	9	9	7	7	**46**
12L Nuclear Criticality Concerns	2	4	3	4	8	4	5	3	**33**
12O Safeguards & Security	3	1	1	0	5	8	5	4	**27**
12D Env. Release/Compliance	0	2	4	4	4	6	1	3	**24**
12Q Vehicular Accidents	2	1	2	4	3	6	5	0	**23**
12N Rad. Skin Contaminations	3	3	3	0	4	1	1	1	**16**
12R Suspect/Counterfeit Items	1	0	0	2	0	0	1	0	**4**
12S/Z Other than Above	1	1	1	0	0	0	1	0	**4**
Totals	193	228	248	258	255	262	266	254	**1,964**

Figure 1 below depicts the annual distribution of Group 10 ORPS reports for each Category 12 ES&H Keyword clusters across FY2018 - FY2025. The top two ES&H 12 Codes that were categorized by the Group 10 criteria include 12B Conduct of Operations (average of 67 events each year) and 12K Near Miss (average of 66 events each year). All other ES&H 12 Codes averaged about seven events per year.

Figure 1. *Annual Distribution of Group 10 Management Concerns & Issues by Category 12 ES&H Primary Keyword FY2018-FY2025*

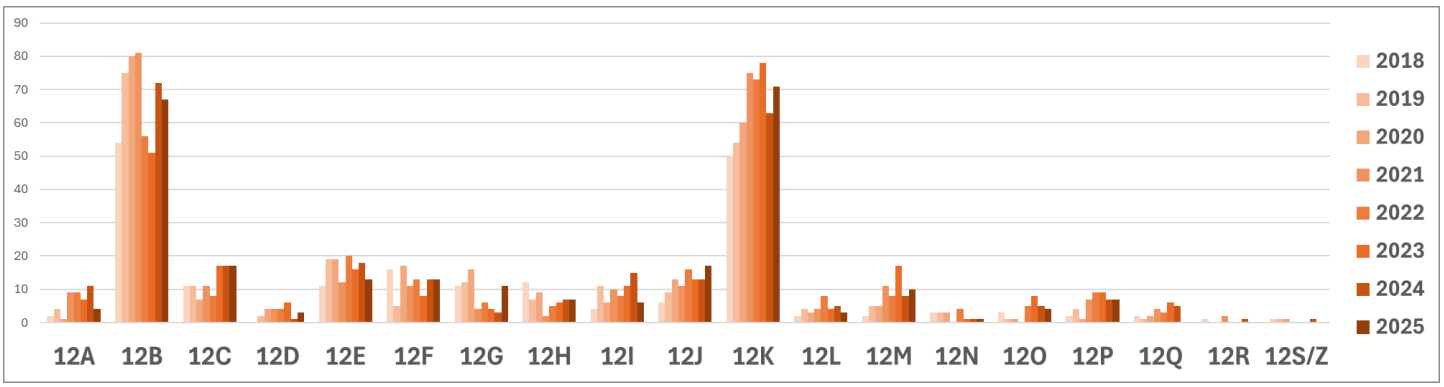
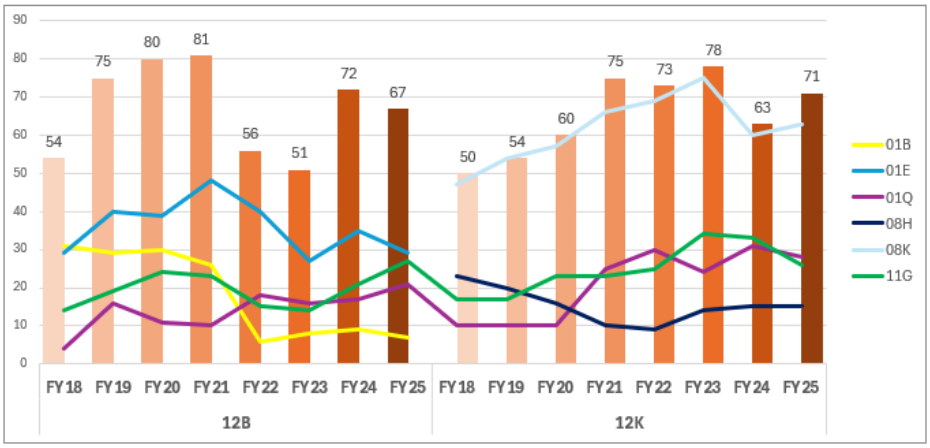


Figure 2. *Annual Distribution of Group 10 Events by ES&H Keywords 12B & 12K*



Is there more to see behind those two top ESH keywords?

- Conduct of Operations (12B)
- Near Miss (12K)

Figure 2 offers a closer examination of both Category 12 ES&H Keywords, 12B Conduct of Operations and 12K Near Miss, as displayed in Figure 1, along with the top HQ Keywords that are most frequently assigned to these ORPS reports with the Group 10 criteria from FY2018 – FY2025.

The top HQ Keyword most frequently associated with 12B is **Facility Operations Procedure Noncompliance (01E)**, averaging 36 events per year and making up 54 percent of Conduct of Operations (12B) events over the review period. This trend suggests there are a significant number of events where operations or maintenance activities deviate from approved procedures, which can increase the risk of accidents, health hazards, environmental damage, and potential harm to personnel. Looking at 12K, we note that the 08K (Near Miss) HQ Keyword does not provide additional insights on associated operational issues. The next most frequently associated HQ Keywords are **Personnel Error (01Q)**, averaging 20 events per year and 32 percent of Near Miss (12K) events, and **Subcontractor (11G)**, averaging 24 events per year with 38 percent of Near Miss (12K) events over the review period. Near Miss events in ORPS are specific to personnel injury; this keyword analysis indicates that ORPS report write-ups by field organizations have pointed to issues at the subcontractor or personnel level. These associations may merit additional analysis. While Figure 2 provides a view into DOE-wide data, program offices and field sites can create similar charts to provide more targeted operation- or site-specific performance insights.

DAMaL Tools Analysis

While HQ Keywords enable analysis through structured data and binning, advanced tools such as DAMaL can tap into rich unstructured text data submitted into ORPS. The DAMaL tools are a suite of advanced web-based tools designed to improve the efficiency and effectiveness of data analysis, enabling users to leverage all the information in the EHSS databases to support decision making. Capabilities include search and filtering of records, dynamic data visualization and plotting, text analytics (using natural language processing and clustering), and classification algorithms for classifying, visualizing, and analyzing out-of-sample data. We used the DAMaL tools to identify significant data trends and clusters that could reveal performance issues and themes. The analysis pointed to potential trend areas that may benefit from follow-up.

Table 4 shows results of a text clustering analysis[2] of Group10 ORPS reports from FY2018 – FY2025. For each identified Area (i.e. bin/group), the table provides the most common terms in the report text which were deemed related and significant. The results in Table 4 also include the section where the cluster was observed. Note that Table 4 is not sorted in any other way (e.g., by risk, by importance, by significance, etc.).

Table 4 also provides simple statistics for each area using similarity scores. In practice, this means that we compared all reports and highlighted those that were most alike. Reports with a similarity score above 0.1 were included to estimate whether an area's trend was increasing, stable, or decreasing. While no threshold is perfect — some related reports may be missed, and others may be included by mistake — experience has shown that a score above 0.1 reliably captures related reports. This makes it possible to quickly review large amounts of data, estimate general trends, and compare areas without needing exact counts.

[2] Clustering analysis uses machine learning algorithms to create groups or bins of similar records based on data features (i.e. numerical or text). DAMaL uses K-means or DBSCAN clustering algorithms to calculate a ranking score and group.

Table 4. ***Summary of Recurrent Terms for Reporting Criteria 10(1), 10(2) and 10(3)***

Area	Terms Observed in Clusters	Statistics (for ORPS Reports with Similarity > 0.1)			Related ORPS Examples
		Total ORPS Reports	Top three Keywords (# reports)	Est. Trend	
Both 10(1) & 10(2)					
Vehicle Safety	Vehicle, truck, driver, trailer, roll, road, park, damage, load, side, forklift, gate, telehandler, cart, backwards, passenger, stop, utility, pole, tire, pedestrian	108	14E (108) 8K (65) 12K (52)	Decreasing	NA--LSO-LLNL-LLNL-2019-0043 Subcontractor Vehicle Hauling Equipment Loss of Control at Site 300 EM-ID--FID-LANDLORD-2019-0003 Fuel Truck Contacts Light Post
Lifting Operations	Crane, lift, operator, load, foot, rig, crane operator, scaffold, move, ground, operator, ton, block, hoist, tower, hook	91	14E (78) 8P (47) 8K (44)	Increasing	EM-ID--IEC-IWTU-2023-0005 - Maintenance Crane Five-Ton Hook & Block Contacts Building Steel Structural NA--LASO-LANL-BOP-2019-0012 Near Miss to a Serious Occupational Injury: Worker Sustains Foot Contusion during Hoisting Operations
Only 10(1) – Management Concern					
Electrical Safety: Conduct of Operations	Electrical, line, conduit, power, electrician, energize, cable, subcontractor, circuit, contact, outage, breaker, light, fixture, light fixture, excavation, panel, wire	108	14E (85) 11G (49) 14G (41)	Stable	NA--LASO-LANL-SHOPSFAC-2019-0001 Management Concern: Brass Fitting Failed During Pressure Test NA--NPO-CNS-Y12NSC-2024-0051 - Arcing/Sparking From Conduit in the 9212 E Wing Plenum
Electrical Safety: Lockout	Loto, electrical, power, breaker, lock, circuit, energy, panel, lockout, electrician, lockout, tagout loto, lockout tagout, tagout, tag, permit	120	14E (101) 8H (69) 12I (59)	Stable	NA--SS-SNL-1000-2024-0006 - Lockout/Tagout Step Missed Before Confined Space Entry NA-UPO--CNS-UPFPROJ-2024-0001 - Violation of Lockout/Tagout Procedure
Contamination or Waste	Material, sample, waste, container, contamination, drum, chemical, radiological, survey, waste, radiation, control, hood, asbestos, lab, acid, room, dpm, radiological control technician, rct, dose, contain	159	14E (112) 14D (51) 12B (43)	Decreasing	EE-GO--NREL-NREL-2020-0001 Chemical reaction in acid waste container EM-ORO--NWS-TWPC-2018-0004 Lack of Program Definitions for Shipping of Waste Samples Prompted Questions Concerning Sample Overpack Shipping Containers
Fire Safety	Fire, water, alarm, line, system, vehicle, fire alarm, test, maintenance, truck, valve, department, fire department, smoke, extinguish, flame, fire protection	116	14E (71) 12F (62) 3C (46)	Increasing	NA--NPO-CNS-PANTEX-2025-0051 - Fire Alarm Receiving System (FARS) Loss of Communication NA--SS-SNL-4000-2018-0005 Corporate Fire Protection Program
Fume Hoods	Fire, hood, chemical, alarm, lab, system, hood, room, tank, department, acid, container, smoke	121	14E (76) 12F (39) 1I (35)	Increasing	NA--SS-SNL-5000-2024-0006 - KOH Event at 858EF Alarm Triggered EE-GO--NREL-NREL-2019-0004 Fire in Field Test Laboratory Building Lab 250
Only 10(2) – Near Miss to a Reportable Injury					
Door issues	Truck, vehicle, door, trailer, driver, forklift, load, roll, transport, roll door, open, close, free, bottom, piece, door open, chain, fell, track, plate, elevator, lock	82	14E (58) 08K (44) 12K (37)	Decreasing	NA--NPO-CNS-Y12NSC-2019-0031 9995 Roll-up Door Near Miss NA--LSO-LLNL-LLNL-2020-0028 Near Miss - Roll-up Door Mechanism Pieces Fall to Ground During Manual Operation
Items Drops/Fall Prevention	Scaffold, roof, crane, fall, floor pipe, fell, lift, deck, barricade, fall protection	106	14E (87) 08K (66) 12K (61)	Increasing	NA-UPO--CNS-UPFPROJ-2021-0010 - A 9 ft, 32.9 lbs stainless steel pipe falls from guide brackets during scaffold modification NA--SS-SNL-4000-2021-0011 - Fall Protection Hazard While Working on Scaffold During Construction Activities

Finally, each Area in **Table 4** includes select ORPS reports identified through the DAMaL tool's similarity search. To do this, the terms listed in Column 2 of the table were entered into the similarity search feature, which returned the most relevant ORPS reports. For example, entering the terms *"Vehicle, truck, driver, trailer, roll, road, park, damage, load, side, forklift, gate, telehandler, cart, backwards, passenger, stop, utility, pole, tire, pedestrian"* into the DAMaL tools similarity search[3] returned the top 100 related records, from which the two of the most relevant were selected for Table 4.

DOE OPEXShare

A review of the content in **DOE OPEXShare** also showed multiple articles on some of these management concerns and issues topics. **Table 5** includes select DOE OPEXShare articles identified through the DAMaL tool's similarity search[4]. To do this, the terms listed in Column 2 of Table 4 were entered into the similarity search feature, which returned the most relevant OPEXShare Lessons Learned articles.

Table 5. ***Top DOE OPEXShare Articles per Area Identified in Table 4***

Area	Related OPEXShare Lessons Learned Examples
Vehicle Safety	Be Vigilant in Parking Lot Safety - Employee Struck by Vehicle in 2704HV Parking Lot
	Questionable Tire Integrity Raises Doubts About Safe Work Performance
Lifting Operations	Cell Cover #24 Disengaged from Yoke over SEFT (SRMC)
	Heads Up! Lessons for Lifting Operations
Electrical Safety: Conduct of Operations	Equipment Failure Leads to Unintended Contact with Hazardous Energy
	Electrical Shock Incurred While Replacing Fluorescent Light Bulbs
Electrical Safety: Lockout	LOTO Danger Tag Falls off Breaker- Procedure use Less Than Adequate
	Simple Lockout/Tagout Installed on Wrong Breaker
Contamination or Waste	Inspector Experiences Chemical Burn on Hand
	Waste and Storage Disposal
Fire Safety	Multiple Factors Influence Less Than Adequate Response to Fire
	Advance Test Reactor Control Room Manual Emergency Notification Results in Response Delay
Fume Hoods	Monitoring of Aging Equipment Reminder Due to Hood Sash Cable Failure
	ANL LL- 2024-05 - Chemical Inhalation Event
Door issues	Roll-Up Door Safety Precautions- (SRMC)
	DWPF Roll-up door free-fall event- Submitted by Savannah River Mission Completion
Items Drops/Fall Prevention	Self-Retracting Lanyard Engages Causing Ironworker to Lose Their Balance and Fall From Roof
	Unsecured Overhead Pipe Insulation Chafing Guards Could Become Falling Object Hazards

[3] To replicate Table 4 use the following filters in the DAMaL tools similarity search: date range FY2018 to FY2025, and report type HQ Summary.
[4] To replicate Table 5 use the following filters in the DAMaL tools similarity search: date range FY2018 to FY2025, and OPEXShare (i.e., Best Practices, OE Documents, General Information, Just-in-Time, Lessons Learned, OE and DOE OPEXShare Training and Guidance, Product Recall/Alert, DOE, Safety Bulleting/Alert and Success Story).

Recommendations

To maximize the value of these findings, consider the following recommended actions and opportunities for improvement:

Strengthen Reporting Culture**:** Continue encouraging employees to report concerns, near misses, and lessons learned under Group 10. Recognize and celebrate reporting as a key driver of operational improvement.

Share Insights Broadly**:** Distribute key trends and findings across sites and teams to raise awareness of common issues and reinforce organizational learning.

Target High-Impact Areas**:** Use the identified clusters and trends to prioritize resources and corrective actions where they will have the greatest effect on performance and mission success.

Group 10 reporting enables DOE sites and their field managers to document significant events that may not meet other ORPS criteria but nonetheless expose vulnerabilities in planning, communication, or supervision. By reporting these events, leaders reinforce a culture where safety and integrity take precedence over appearances, foster organizational trust, and identify emerging issues before they escalate into harm or to be non-compliant with regulations. Group 10 reports transform hindsight into foresight, strengthen underlying systems, and drive continuous improvement in safety culture and institutional performance.

Flashback Resource

The June 2019 OES: The Importance of Reporting Near Misses provides insight into the high value of low-level and voluntary reporting

Conclusions

Information reported in ORPS under Group 10 is more than just data — it reflects our commitment to learning, collaboration, and continuous improvement. Each report contributes to safer, more efficient operations and mission success. By identifying risks early, capturing near misses, and sharing lessons learned, we turn individual observations into collective progress, strengthening our culture of accountability and proactive problem-solving. Through the findings outlined in this OES, our review of ORPS data fields, keywords, and patterns — enhanced by the DAMaL tools — confirmed key trends and highlighted areas where proactive action can have the greatest impact. These insights show how thoughtful reporting drives better decisions, prevents future issues, and celebrates the dedication of those who take the time to report concerns. Together, these efforts make our operations safer, stronger, and better prepared for the future.

References

Data Analytics and Machine Learning (DAMaL) tool

DOE OPEXShare

DOE O 232.2A, *Occurrence Reporting and Processing of Operations Information*

HQ Keywords Binning and Guidance Criteria (as of 08/07/2025)

Occurrence Reporting and Processing System (ORPS)

For questions about this OES, please contact Felix Gonzalez at 301-903-9311 or Felix.Gonzalez@hq.doe.gov or the Office of ES&H Data Strategy and Performance (EH-23) by email at OEC@hq.doe.gov.

Operating Experience Summary

Operating Experience Summary (OES): An informative operating experience-based article published by the Office of Environment, Health, Safety, and Security (EHSS) and distributed across the DOE complex through the DOE Corporate Operating Experience Program to promote safety and mission success through the open exchange of valuable experiences, good practices, and performance summaries.

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HQ KEYWORDS BINNING GUIDANCE AND CRITERIA (as of 08/07/2025)

1. Work Planning and Control Deficiencies

- A. Inadequate Conduct of Ops (Retired)
- B. Loss of Configuration Management/Control
- C. Violation of AB Elements
- D. Inadequate Surveillance
- E. Facility Operations Procedure Noncompliance
- F. Training Deficiency
- G. Inadequate Procedure
- H. Inadequate Safety Analysis/USQ/TSR
- I. Safety System Actuation
- J. Criticality Procedure Noncompliance
- K. LOTO Noncompliance (Elec)
- L. LOTO Noncompliance (Other)
- M. Inadequate Job Planning (Elec)
- N. Inadequate Job Planning (Other)
- O. Inadequate Maintenance
- P. Inadequate Verbal/Written Communication
- Q. Personnel Error
- R. Management Issues
- S. Incorrect/Inadequate Installation
- T. Willful Violation
- U. Unplanned Interruption of Operations

2. Environmental

- A. Radioactive Release
- B. Above/Underground Storage Tank Release
- C. Compliance Notification (from regulator with a violation)
- D. Compliance Notification (to regulator w/o violation)
- E. Hazardous Material Release (Onsite)
- F. Potable Water Release
- G. Hazardous Material Release (Offsite)
- H. PFAS Release or Spill
- I. Impact to Ecological/Cultural Resources

3. Fire Protection & Explosives Safety

- A. Fire Protection Equip Degradation
- B. Fire Suppression Actuation
- C. Facility Fire
- D. Explosives Safety Issue
- E. NFPA Code/Fire Protection Issue
- F. Explosion
- G. Wildland Fire

4. Instrumentation/Controls

- A. I & C Equipment
- B. Criticality Equipment
- C. Monitor/Analyzer
- D. Computer Software
- E. Computer Hardware

5. Mechanical/Structural

- A. Freeze Protection Failure
- B. Seismic Qualification Deficiency
- C. Ventilation System/Fan
- D. Mechanical Equipment Failure/Damage
- E. Structural Deficiency/Failure
- F. Corrosion/Material Degradation/End of Life
- G. Glovebox Failure
- H. HEPA Filter
- I. Container/Package Failure

6. Radiological

- A. Clothing Contamination
- B. Facility/Equip/Site Contamination
- C. Skin Contamination
- D. Airborne Radiological Release
- E. Radiological Control Procedure Noncompliance
- F. External Exposure
- G. Intake
- H. Inadequate Radiological Control Job Planning
- I. Radiological Control Training Deficiency
- J. Inadequate Radiological Control Procedure
- K. Offsite Spread of Contamination
- L. Radiological Container/Package/Drum Failure

7. Electrical Systems

- A. Emergency/Backup Generator Failure
- B. Electrical Distribution
- C. Power Outage
- D. Electrical Wiring
- E. Electrical Equipment Failure
- F. Arc Flash
- G. Faceplates/Cover Plates

8. OSHA Reportable/Industrial Hygiene

- A. Electrical Shock
- B. Indoor Air Contamination
- C. Industrial Hygiene Exposure
- D. Injury/Illness
- E. Fatality
- F. Industrial Operations Issues (Retired)
- G. Industrial Equipment
- H. OSHA Safety Noncompliance
- I. Safety Equipment Failure
- J. Near Miss (Elec)
- K. Near Miss (Other)
- L. Notice of Violation or Noncompliance
- M. Chemical Safety
- N. Laser Safety
- O. Construction/Demolition Safety
- P. Hoisting/Rigging Incident
- Q. Forklift/Hand Truck Incident
- R. Excavations/Penetrations
- S. Landscaping/Mowing
- T. Beryllium Incident

9. Safeguards/Security Issue

- A. Fitness for Duty Issue
- B. Material Accountability Issue
- C. Miscellaneous Security Issue
- D. Theft/Sabotage

10. Transportation

- A. Shipping Regulation Noncompliance
- B. Vehicle Accident/Incident
- C. Industrial Equipment Movement Incident
- D. Transportation Notice of Violation or Noncompliance from Local, State or Federal Agency
- E. Shipping Incidents/Accidents

11. Other

- A. Chemical Reaction/Pressurized Drum
- B. Emergency Management System Failure
- C. Nuclear Weapons Safety Issue
- D. Natural Phenomena/Weather Conditions
- E. Suspect/Counterfeit Items
- F. Inadequate Design
- G. Subcontractor
- H. Procurement Deficiency/Defective Items
- I. Visiting Scientist/Researcher or Student Employee
- J. Tenants on DOE Property
- K. Excessed Equipment/Material
- L. Supplier
- M. Outside Agency or Organization/Site Visitor
- N. Nuclear Waste Handling Operations
- O. Pandemic

12. EH Categories (select only one)

- A. Authorization Basis
- B. Conduct of Operations
- C. Electrical Safety
- D. Environmental Releases/Compliance
- E. Equipment Degradation/Failure
- F. Fire Protection & Explosive Safety
- G. Industrial Operations
- H. Injuries Requiring Medical Treatment Other Than First Aid
- I. Lockout/Tagout (Electrical & Mechanical)
- J. OS/IH
- K. Near Miss
- L. Nuclear Criticality Safety Concern
- M. Radiological Control
- N. Rad. Skin Contaminations/Uptakes/Overexposures
- O. Safeguards & Security
- P. Shipping QA
- Q. Vehicle Accident
- R. Suspect/Counterfeit Items – Defective Items
- Z. Other than above

13. Management Concerns

- A. HQ Significant
- B. Accident Investigation - Type A (Retired)
- C. Accident Investigation - Type B (Retired)
- D. Accident Investigation
- E. Facility Call Sheet (Retired)
- F. Operating Experience Summary Article (Retired)
- G. Suspect/Counterfeit Items - Defective Items DCS (Retired)
- H. ARRA (Retired)

14. Quality Assurance

- A. Program Deficiency
- B. Training & Qualification Deficiency
- C. Quality Improvement Deficiency
- D. Documents & Records Deficiency
- E. Work Process Deficiency
- F. Design Deficiency
- G. Procurement Deficiency
- H. Inspection & Acceptance Testing Deficiency
- I. Management Assessment Deficiency
- J. Independent Assessment Deficiency
- K. Safety Software QA Deficiency
- L. No QA Deficiency