

OES 2023-05

December 2023

CAIRS Fiscal Year 2023 In Review

Introduction

The Computerized Accident/Incident Reporting System (CAIRS) is a database used to collect and analyze Department of Energy (DOE) and DOE contractor reports of injuries, illnesses, and fatalities that occur during DOE operations. CAIRS reporting is required by DOE Order 231.1B “Environment, Safety and Health Reporting” and is managed by the Office of ES&H Reporting and Analysis (EHSS-23). The recordkeeping data represent real injuries and illnesses that have occurred in the DOE complex. Evaluation of injury and illness data is a vital component of hazard identification and abatement. However, it is only one component of an effective evaluation. DOE strongly advocates the use of multiple variables to evaluate the effectiveness of a safety and health program.

This Operating Experience Summary (OES) provides a compilation of various metrics for visibility into DOE-wide injury/illness performance for Fiscal Year (FY) 2023. For comparison, each table in this summary report includes previous years’ performance data.

FY CAIRS Reporting Summary

Table 1 is a listing of the total number of work-related injuries and illnesses that have been entered into CAIRS over the past three FYs along with the respective work hours and the corresponding Total Recordable Case Rate (TRC) and Days Away, Restricted or Transferred Rate (DART).

Table 1: Total cases submitted into CAIRS by FY

Fiscal Year	Work hours	Total number of cases	TRC Rate	DART Rate
2023	305,558,842	1,513	0.99	0.49
2022	292,258,627	1,789	1.22	0.72
2021	282,714,952	1,440	1.02	0.58

Table 2: DOE COVID-19 cases

Fiscal Year	# of COVID-19 cases
2023	200
2022	648
2021	350
2020	90

Table 2 shows the number of COVID-19 cases that have been submitted to CAIRS. It should be noted that COVID-19 cases continue to impact the total TRC and DART rates since FY 2020. COVID-19 is considered a respiratory illness under criteria established by the Occupational Safety and Health Administration (OSHA) and is recordable if a worker is infected while performing work-related duties.

Table 3: CAIRS cases classified by event category

Event category	FY 2023	FY 2022	FY 2021
Bodily reaction and exertion	533	513	464
Contact with objects and equipment	393	289	326
Falls	246	210	175
Pandemic (COVID-19)	200	648	350
Exposure to harmful substances or environments	95	92	94
Other Events or Exposures	20	20	14
Transportation accidents	21	7	11
Assaults and Violent Acts	5	8	5
Fires and explosions	0	2	1
Total for Fiscal Year	1,513	1,789	1,440

Table 3 shows the total number of cases submitted classified by the event category that best describes the way the injury/illness was produced or inflicted by the source of injury/ illness.

1. Most cases were due to worker overexertion and bodily reactions which can result in muscle strains, sprains, back injuries, etc.

2. The second highest category was workers contact with objects and equipment due to struck by/against, caught in/pinched, etc. which can result in abrasions, lacerations, fractures, etc.

3. The third highest category was worker injury due to falls on the same level, falling from ladders, scaffolds, etc. which can result in fractures, sprain/strain, contusions, etc.

Conclusion

The recordkeeping system is intended to collect, compile, and analyze uniform and consistent data on occupational injuries and illnesses across the DOE complex.

DOE and DOE contractor management should analyze every injury or illness that occurs in their respective organizations to identify causal factors that could be modified or eliminated through best practices enabling continuous improvement. Having this information will provide both DOE and DOE contractor management with a better understanding of safety and health issues.

The Office of Environment, Health, Safety and Security (EHSS), Office of ES&H Reporting and Analysis publishes OES articles to promote safety throughout the DOE Complex through the exchange of lessons-learned information among DOE facilities and program offices.

For further information or assistance related to this OES, please contact Craig Schumann, CAIRS Program Manager, at (630) 252-9176 or Craig.Schumann@hq.doe.gov.

