

OES 2022-05

December 2022

CAIRS Fiscal Year 2022 In Review

Introduction

The Department of Energy (DOE) uses the Computerized Accident/Incident Reporting System (CAIRS) database to collect and analyze reports of injuries, illnesses, and fatalities that occur during DOE operations in accordance with DOE Order 231.1B, *Environment, Safety and Health Reporting*. CAIRS is managed by the Office of Environment, Health, Safety and Security (EHSS), Office of ES&H Reporting and Analysis (EHSS-23). The recordkeeping data represents real injuries and illnesses occurring within the DOE complex. While CAIRS does not provide a complete picture of workplace safety, analysis of CAIRS data can be valuable in evaluating safety programs.

This Operating Experience Summary (OES) provides a compilation of various metrics and indicators of DOE-wide injury/illness performance in Fiscal Year (FY) 2022 and is based on CAIRS data as of November 30, 2022. The OES is intended to promote transparency and visibility into operating experience information that may benefit DOE line organizations and contractors in strong mission execution.

FY 2022 CAIRS Reporting and Comparisons

Table 1 summarizes the total work-related injuries and illnesses that have been entered into CAIRS over the past three FYs and their respective Total Recordable Case (TRC) and Days Away, Restricted, or Transferred (DART) case rates. The TRC counts all work-related injuries or illnesses, and the DART case rate only includes an injury or illness which resulted in days away from work, job transfer, or restriction. FY 2022 showed an increase in cases and rates reported. The impact of added COVID-19 pandemic reporting is discussed in the next section.

Table 1. Total cases submitted to CAIRS by FY

Fiscal Year	Total number of cases	TRC Rate	DART Rate
2020	1,044	0.78	0.43
2021	1,465	1.04	0.59
2022	1,684	1.16	0.66

COVID-19 Pandemic Case Reporting into CAIRS

Results for these are shown in Tables 2 and 3. Of the 1,684 cases reported into CAIRS for FY 2022, 579 (34% of the total) were the result of work-related COVID-19 cases which subsequently have impacted the TRC and DART rates. 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. Below is a table of the number of COVID-19 cases submitted to CAIRS by Program Office.

Table 2. COVID-19 cases submitted to CAIRS for FY by Program Office.

DOE Program Office	FY 2022	FY 2021	FY 2020
Science	292	107	15
National Nuclear Security Administration	207	184	56
Nuclear Energy	37	27	8
Environmental Management	23	33	20
Energy Efficiency and Renewable Energy	15	5	0
Other Headquarters Level Organization	5	1	1
Total for FY	579	357	100

Table 3. Number of all COVID-19 cases submitted to CAIRS for FY by quarter.

FY Quarter	FY2022	FY2021	FY2020
Quarter 1	41	210	0
Quarter 2	134	69	7
Quarter 3	233	20	12
Quarter 4	171	58	81
Total for FY	579	357	100

Overall Injury/Illness Case Reporting into CAIRS

Table 4, below, is a summary of the total number of cases submitted to CAIRS for FY 2022 classified by the event category that best describes the way the injury/illness was produced or inflicted by the source of the injury/ illness.

Table 4. Total cases submitted to CAIRS classified by event category.

CAIRS Event Category	FY 2022	FY 2021	FY 2020
Pandemic	579	357	100
Bodily reaction and exertion	488	467	369
Contact with objects and equipment	285	330	295
Falls	204	178	164
Exposure to harmful substances or environments	91	96	56
Other events or exposures	20	18	40
Assaults and violent acts	8	5	3
Transportation accidents	7	13	14
Fires and explosions	2	1	3
Total for FY 2021	1,684	1,465	1,044

Tables 5 and 6 provide a summary of all cases submitted to CAIRS by Program Office and by quarter for FY.

Table 5. Total cases submitted to CAIRS by Program Office.

DOE Program Office	FY 2022	FY 2021	FY 2020
National Nuclear Security Administration	853	834	605
Science	510	310	182
Environmental Management	190	178	165
Nuclear Energy	74	100	66
Energy Efficiency and Renewable Energy	35	21	4
Fossil Energy	8	16	8
Power Administrations	4	3	11
Other Headquarters Level Organization	6	3	2
Legacy Management	4	0	1
Total for FY 2021	1,684	1,465	1,044

Table 6. Total cases submitted to CAIRS by quarter.

Fiscal Year Quarter	FY 2022	FY 2021	FY 2020
Quarter 1	269	404	248
Quarter 2	422	343	291
Quarter 3	516	327	171
Quarter 4	477	391	334
Total for FY	1,684	1,465	1,044

Conclusion

CAIRS provides a valuable repository of workplace injury and illness metrics that, in combination with other site and mission-specific information, can be used to support prevention of adverse impacts and improved operations.

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.