

OE-3: 2017-05

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Introduction to the Pilot Project - Nuclear Safety Information Dashboard

PURPOSE

The purpose of the Nuclear Safety Information (NSI) Dashboard is to provide a new user interface that easily extracts nuclear safety event information from the Occurrence Reporting and Processing System (ORPS). It displays the data in a graphic format, and assigns weighted scores to ORPS events to indicate their relative importance to nuclear safety.

BACKGROUND

During the time period of 2011-2012, the Office of ES&H Reporting and Analysis (AU-23) led a team of nuclear safety subject matter experts (SMEs) from across the Department of Energy (DOE) complex in developing weighted scoring of ORPS nuclear and non-nuclear safety precursor-type events as they relate to the nuclear safety program. The events' weighted scores indicate their relative importance to nuclear safety. The goal of using weighted scores of precursor-type events is to anticipate and prevent high consequence nuclear events.

The events are scored according to their reporting criteria and are then combined into 17 groupings such as 'Nuclear Safety Controls' or 'Fires and Explosions.' The NSI displays the groupings' weighted scores graphically on the dashboard, organized by program secretarial offices (PSOs) and sites.

In the summer of 2012, consensus was reached by the SMEs on the weighted scoring, and the NSI Dashboard with weighted scoring was rolled out.

DISCUSSION

In 2016, AU-23 updated the NSI Dashboard by adding sort features, including:

1. Reporting criteria.
2. Keywords.
3. Significance categories.

Customers requested further enhancements, including the ability to display total number of events for the various sorting categories, and normalized data sets with manpower extracted from the Computerized Accident Incident Reporting System (CAIRS). Now, the NSI features four vantage points of ORPS information:

1. Weighted scoring of ORPS events.
2. Weighted scoring of ORPS events, normalized against manpower.
3. Total number of ORPS events.
4. Total number of ORPS events, normalized against manpower.

Once the sorting features are set up, data can be compiled by DOE as a whole, individual program secretarial offices, or by DOE sites.

Exhibit 1 shows the sorting options in the blue-background area and features the main types of data in the dashboard: weighted scores, number of events, and events normalized.

Exhibit 1: Example of a Dashboard with DOE Data



PATH FORWARD

The next step for the NSI is to convene an NSI Weighted Scores Task Group made up of nuclear safety SMEs to address four areas:

1. Are the weighted scores of precursor-type events still relevant?
2. Should high consequence ORPS events remain unscored (because their scores are expected to be excessively high) or should they be scored?
3. Determine how to possibly re-score the weighted events since some ORPS events were redefined in the revised DOE Order, DOE Order 232.2A.
4. Review the normalized data and determine if the manpower crosswalks from CAIRS to ORPS facilities are accurate for both the actual manpower levels and the alignment of CAIRS-to-ORPS facilities.

In addition to the Task Group, a Steering Committee comprised of mid to upper managers may be formed to obtain higher management level perspectives.

HOW DO YOU ACCESS THE NSI?

The Pilot Project - Nuclear Safety Information Dashboard can be found at:

<https://energy.gov/ehss/policy-guidance-reports/dashboards>.

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://energy.gov/ehss/policy-guidance-reports/databases/occurrence-reporting-and-processing-system>, before acquiring a password and UserID.

SOURCES OF INFORMATION

1. Pilot Project - Nuclear Safety Information Dashboards: <https://energy.gov/ehss/policy-guidance-reports/dashboards>
2. Occurrence Reporting and Processing System: <https://orps.doe.gov/>

Questions or assistance regarding the 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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