



**Lawrence Berkeley National Laboratory  
Occurrence Reporting and Processing System (ORPS)**

**Performance Analysis and  
Identification of Recurring Occurrences  
(April 1, 2003 to March 31, 2004)  
Report No. 2**

**Office of Assessment and Assurance  
Environment, Health and Safety Division  
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# LBNL ORPS Performance Analysis and Identification of Recurring Occurrences April 2004

## Executive Summary of Analysis Results

The ORPS performance analysis was conducted of all ORPS and/or PAAA events occurring from April 1, 2003 to March 31, 2004. Using the guidance provided in DOE G 231.1-1, *Occurrence Reporting and Performance Analysis Guide*, and DOE G 231.1-2, *Occurrence Reporting Causal Analysis Guide*, data elements and groupings were identified for each LBNL occurrence during this time period. The analysis addressed who was involved, what happened, where/when did it happen, and how did it happen to determine the major contributors for any given event. Based on this analysis, there was no statistical evidence that LBNL had any recurring events that warrant additional management action or the submission of an ORPS Category 2R report.

## Background

This ORPS performance analysis is part of the quarterly analysis and trending requirements mandated by DOE O 231.1A, *Environment, Safety, and Health Reporting*, and DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*. The goal of the analysis is to determine if there are recurring events that need to be addressed collectively in order to preclude more serious events from occurring. LBNL reviewed its events that occurred during the past 12 months (April 1, 2003 to March 31, 2004). The events included seven ORPS-reportable occurrences and five non-ORPS occurrences identified in the Price Anderson Amendment Act Noncompliance Tracking System (PAAA/NTS). Per the DOE guidance, each of the twelve events were broken down into data elements and element groupings to address who was involved, what happened, where/when did it happen, and how did it happen (see Attachment 1).

## Analysis

A Pareto Analysis was conducted of the data elements to identify major contributors to the LBNL occurrences (see Attachment 2). Most of the data elements occurred once or repeated only once for the twelve events. In order to be statistically significant, a data element should have at least five (5) data points before a trend can be established (ref: TapRoot® performance trending training). EH&S (6) from the [division] data element was the only contributor that was statistically significant (i.e., the division was involved in occurrences more than five times [5x]). To determine any repetitive pattern, EH&S, as the significant contributor, was analyzed by grouping with other data elements as follows:

[Division] less than adequate operation – resulting in [reporting criteria] –  
caused by [cause code] / [human performance code couplet]

The detailed analysis is provided in Attachment 3.

## **Conclusion**

In analyzing the various groupings based on the most significant contributors, no pattern emerged that supports a recurring problem from LBNL programs and/or operations.

For the six occurrences that involved EH&S, each event was significantly different in event details, significance category, reporting criteria, and apparent/root causes to indicate that these were not recurring events. All have been or are currently being addressed with appropriate corrective actions. No additional management actions or submission of an ORPS Category 2R report is required for these events.