

# FY2004 Long-Term Industry Trend Results

## Automatic Scrams While Critical

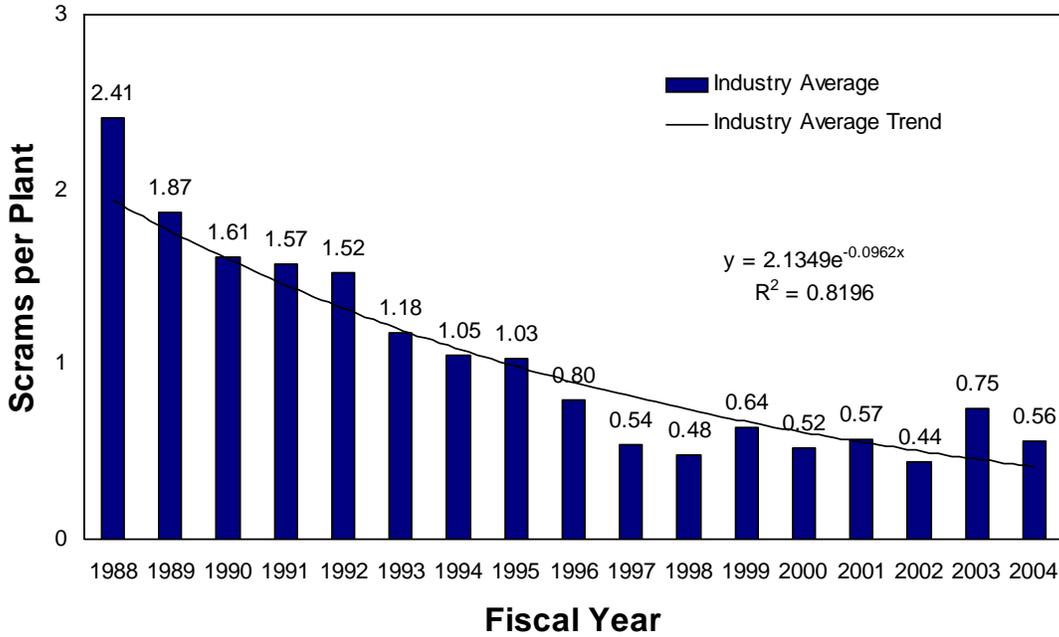


Figure A1-1

## Safety System Actuations

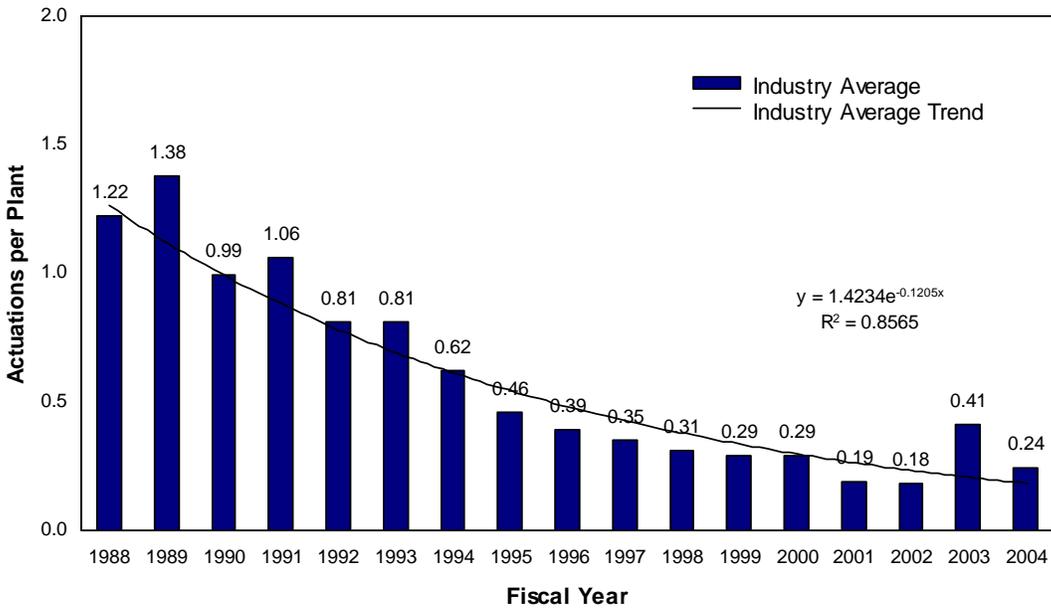


Figure A1-2

### Significant Events

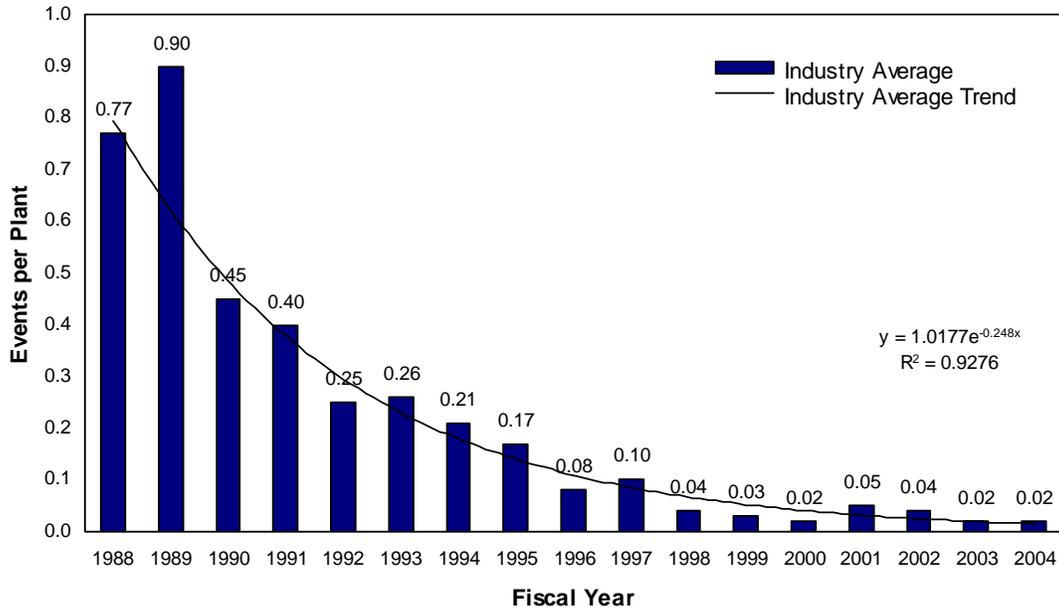


Figure A1-3

### Safety System Failures

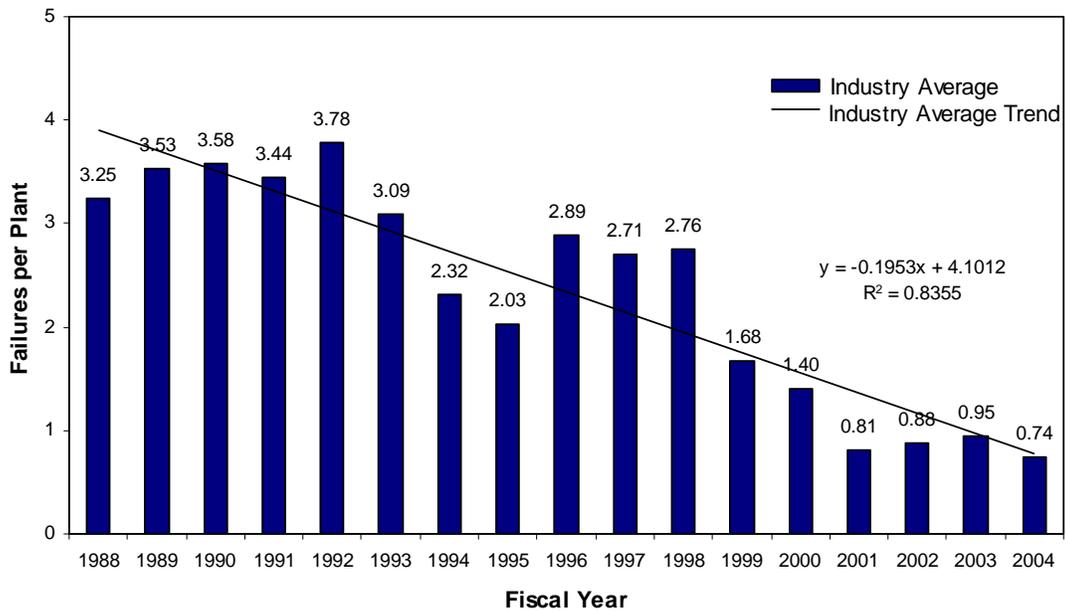


Figure A1-4

### Forced Outage Rate (%)

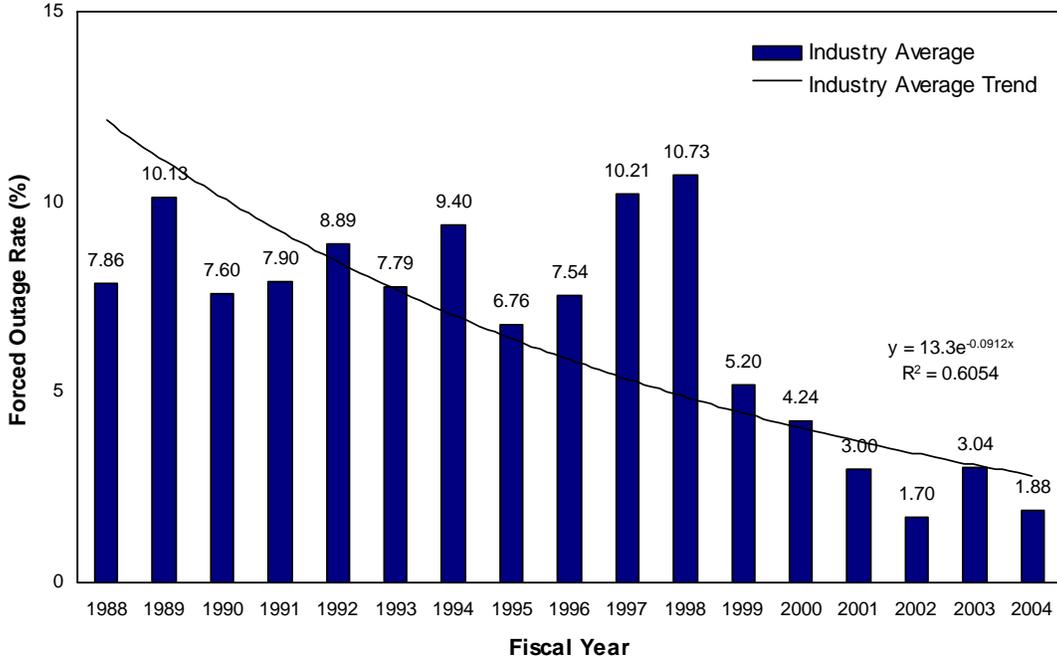


Figure A1-5

### Equipment Forced Outages/ 1000 Commercial Critical Hours

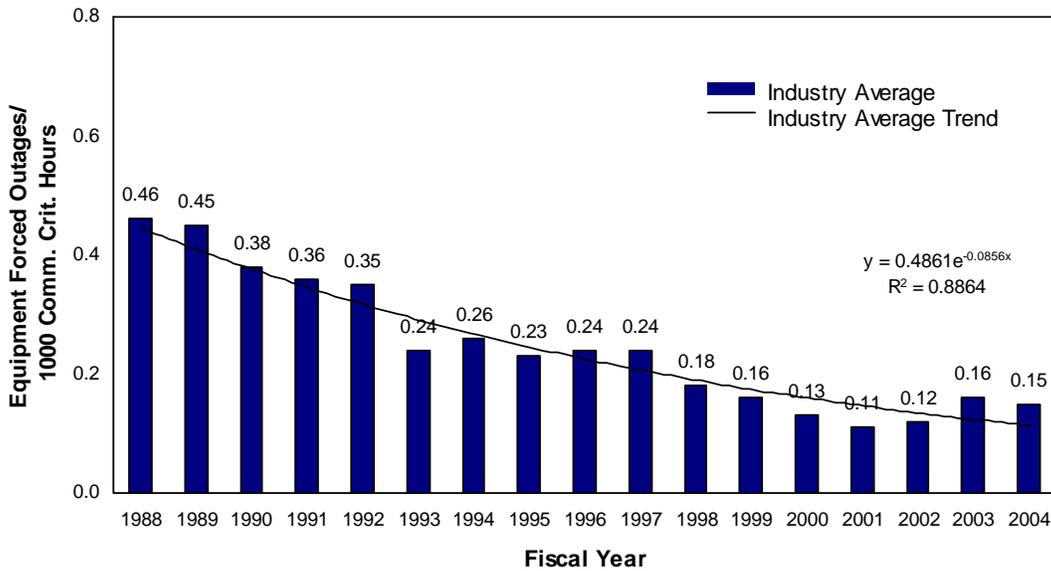


Figure A1-6

## Collective Radiation Exposure

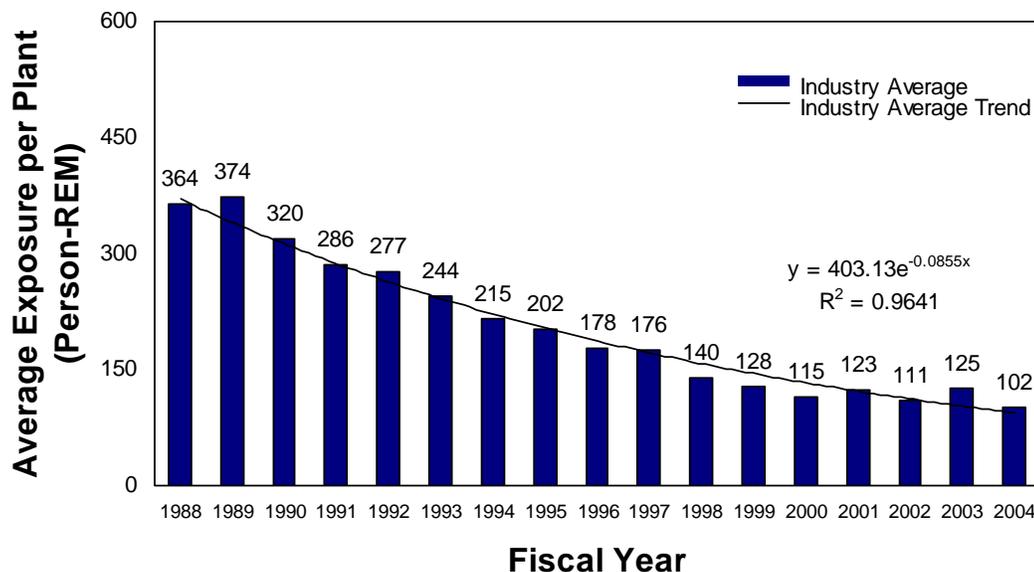


Figure A1-7

### Accident Sequence Precursor Trends

The data used in the trending analyses span the period from FY 1993 through FY 2003. Although the staff is still conducting its preliminary analyses of cracking that occurred in control rod drive mechanism housings during FYs 2001 and 2002, sensitivity analyses conducted to date show that these cracking events are most likely potential precursors but not significant precursors. Therefore, the staff has included these events in the total count and trending of all precursors (i.e., CCDP and ) CDP \$ 1x10E-6).

No statistically significant trend has been observed in the occurrence rate for all precursors that occurred during the period from 1993 through 2003. Figure A1-8 below depicts the occurrence rate per reactor-year for all precursors by fiscal year.

The Office of Nuclear Regulatory Research is working to improve the efficiency and streamline the ASP program, with a goal of completing the analysis of potential precursors within 4—12 months following the initiation of an event or the discovery of the condition. The details of this plan are contained in SECY-04-0210, "Status of the Accident Sequence Precursor (ASP) Program and the Development of Standardized Plant Analysis Risk (SPAR) Models."

Although Figure A1-8 shows the ASP results for events that occurred before FY 1993, these events are not taken into consideration for statistical trending since they were derived using a less-rigorous methodology. The ASP events that occurred before FY 1993 are only shown to provide historical perspective.

### Number of Precursors by Fiscal Year

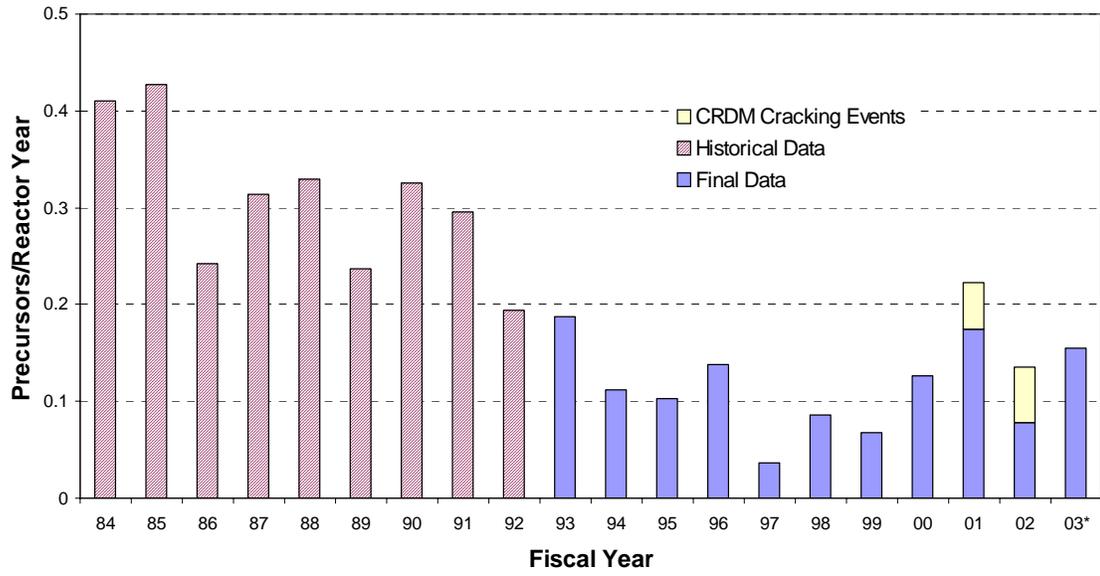


Figure A1-8