

NAR Data Breakdowns Calendar Year 2009

April 21, 2010

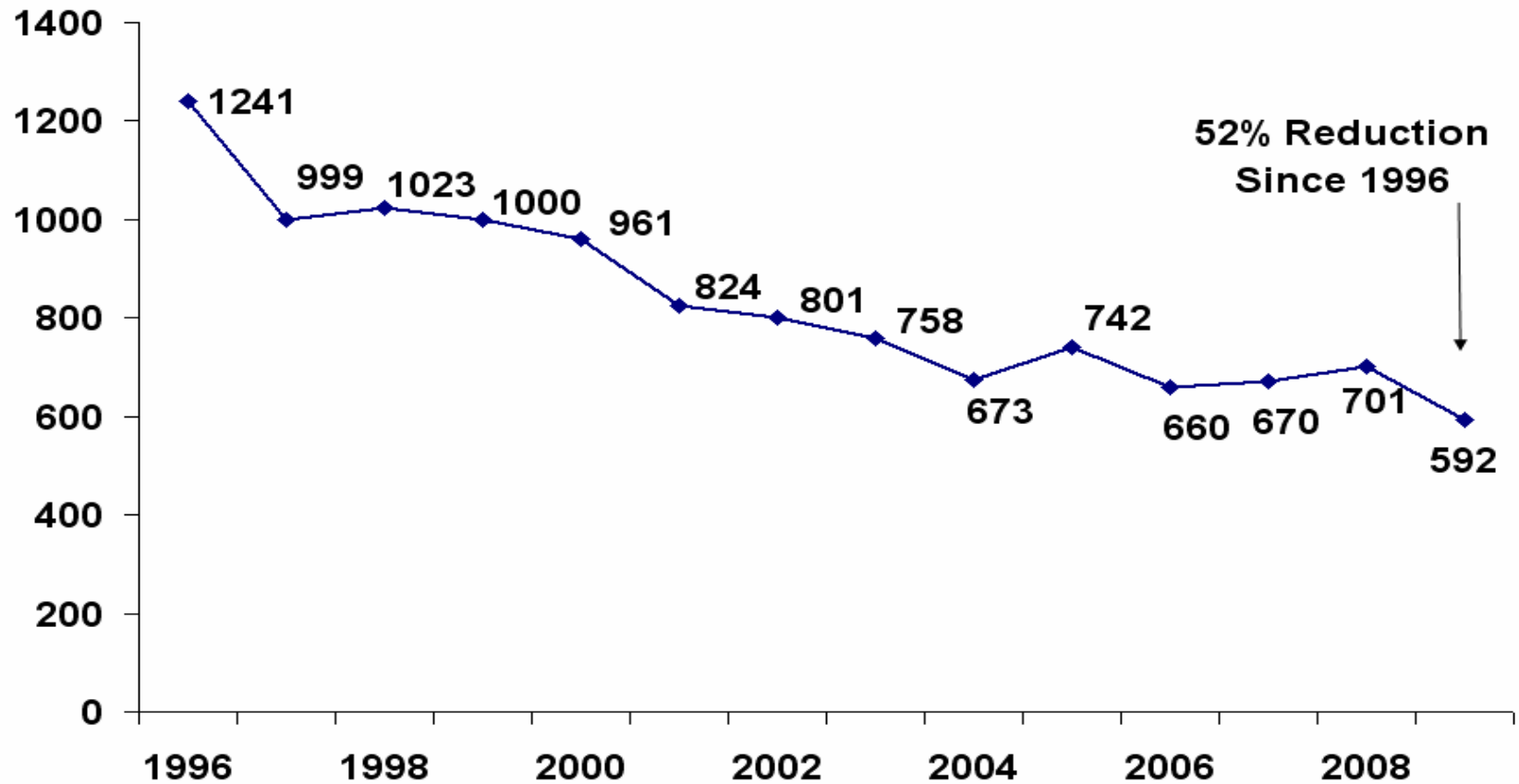
Source of data: AAR/BOE Hazardous Materials
Release Reporter Database
& Annual Hazmat Reports

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<http://www.nar.aar.com>



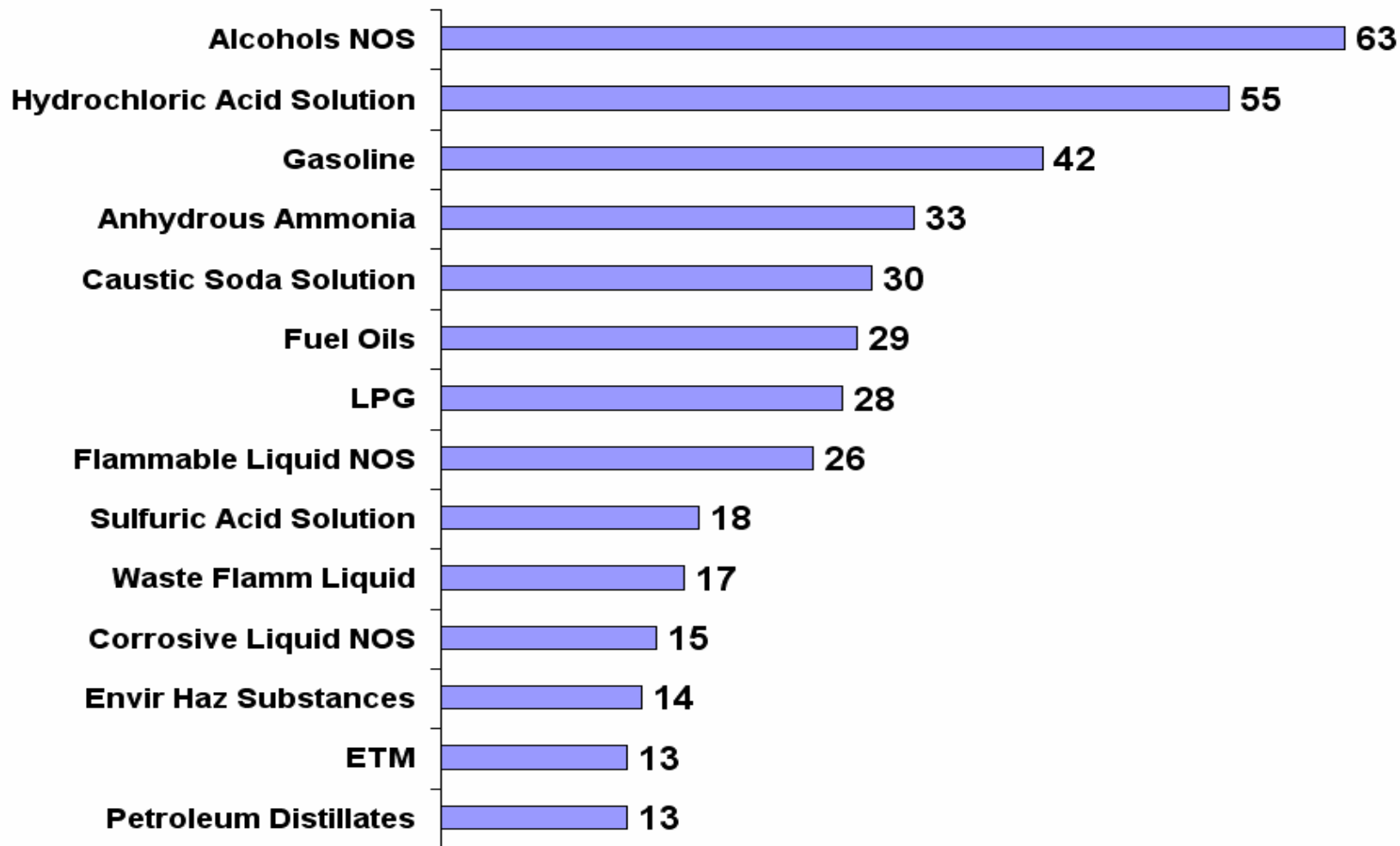
NARs by Year

US & Canada



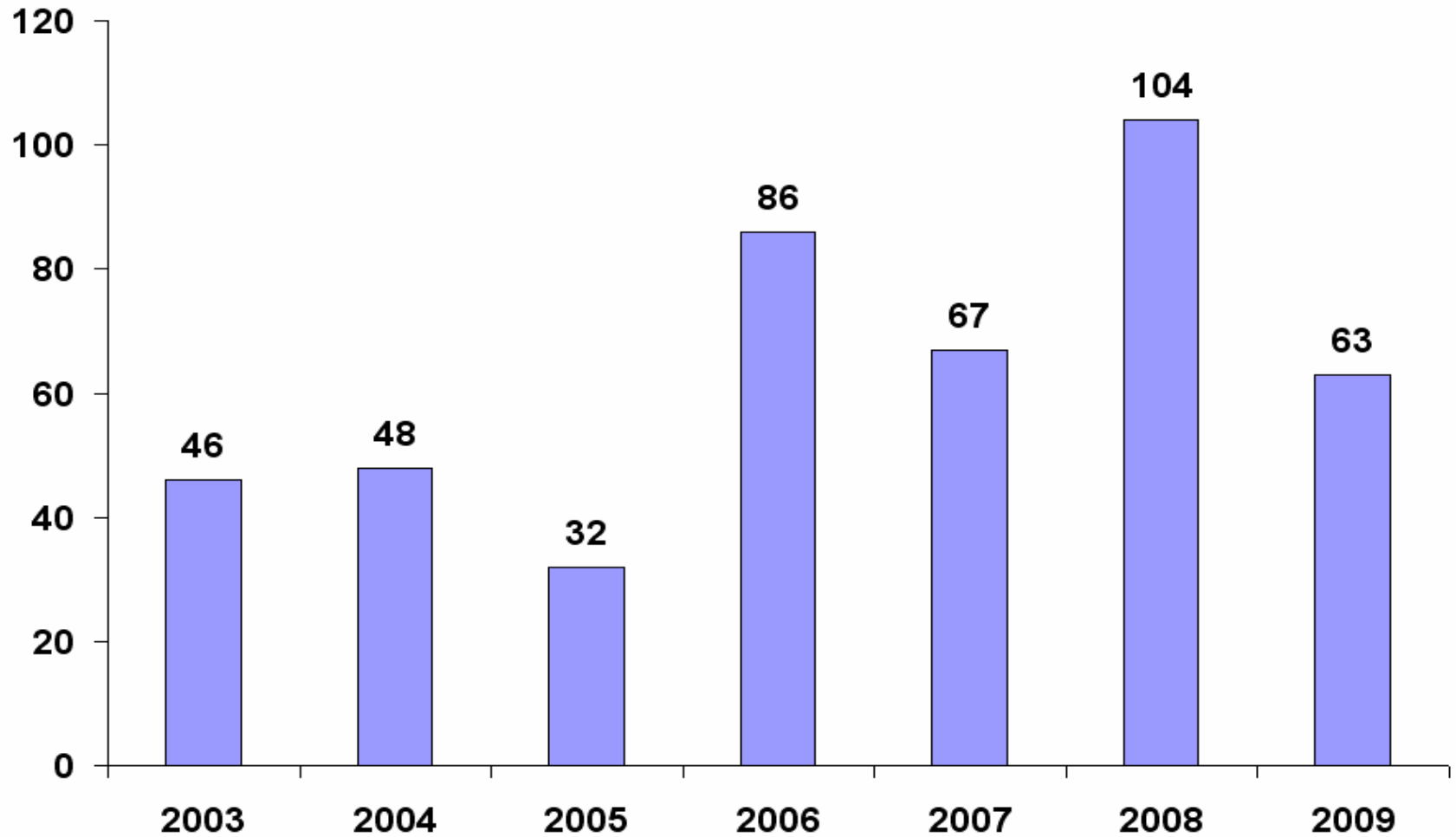
Source: AAR/BOE NAR data

Top Commodities for NARs 2009



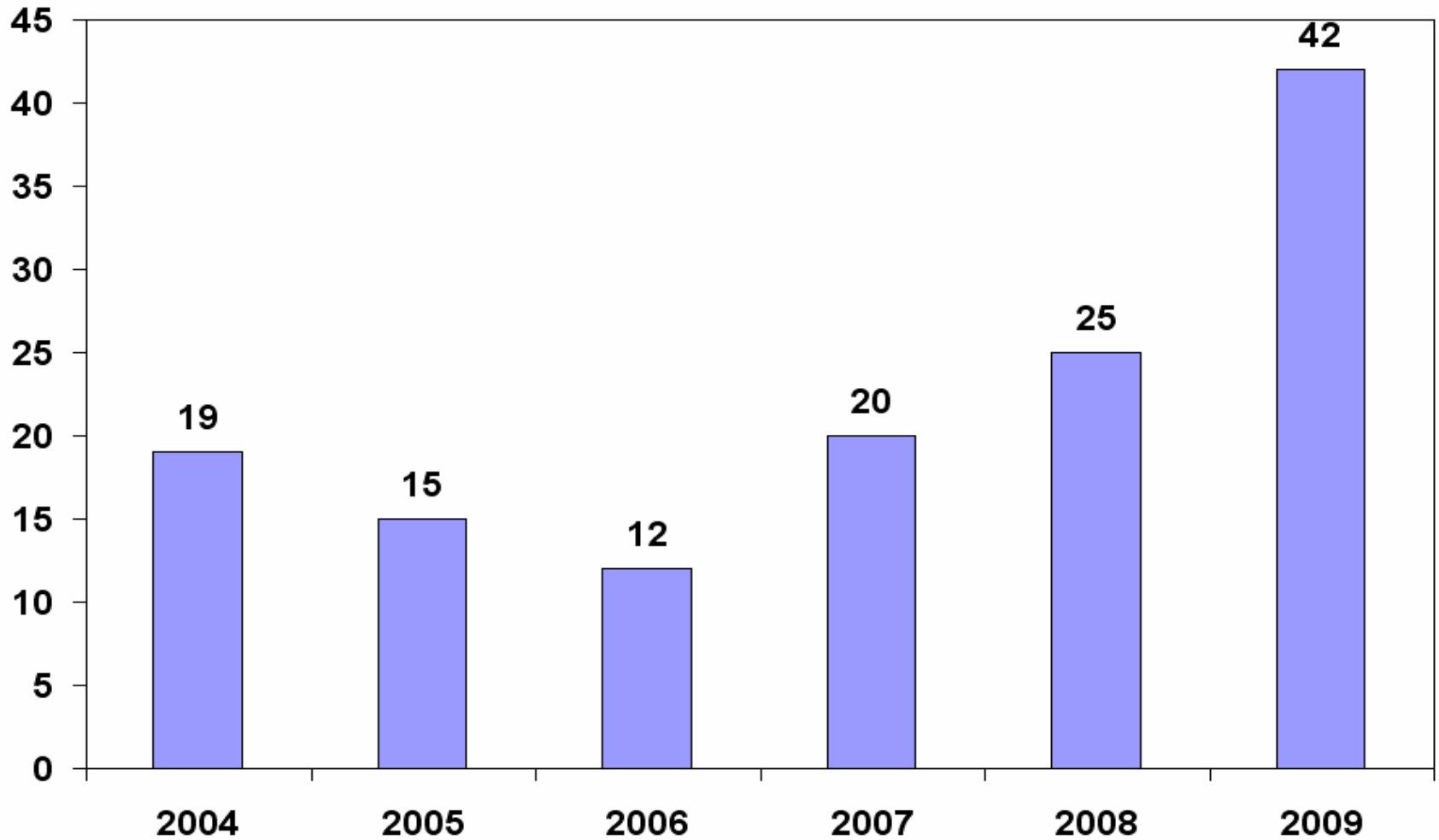
Source: AAR/BOE NAR data

Alcohols NOS Trend



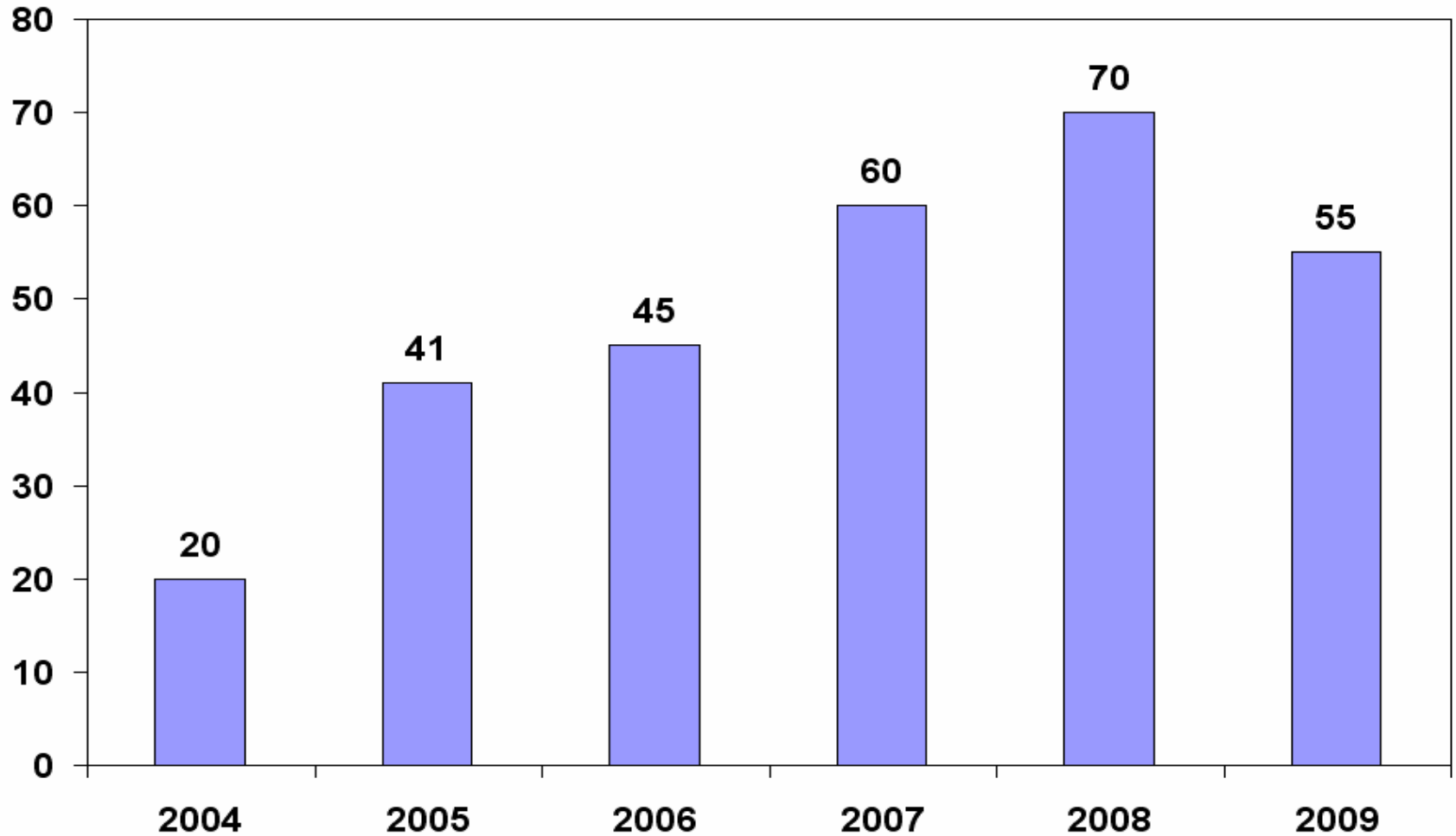
Source: AAR/BOE NAR data

Gasoline Trend



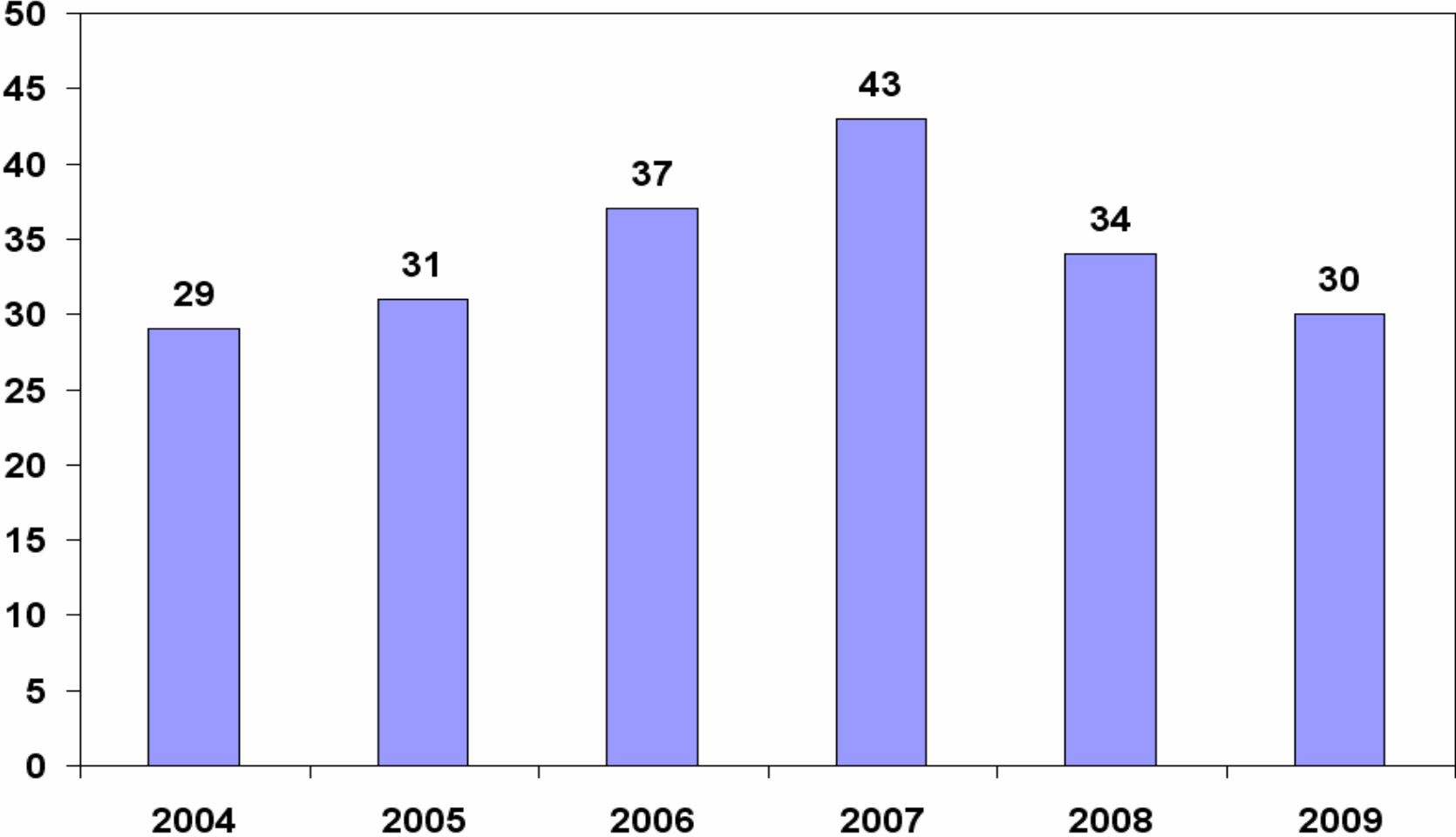
Source: AAR/BOE NAR data

Hydrochloric Acid Solution Trend



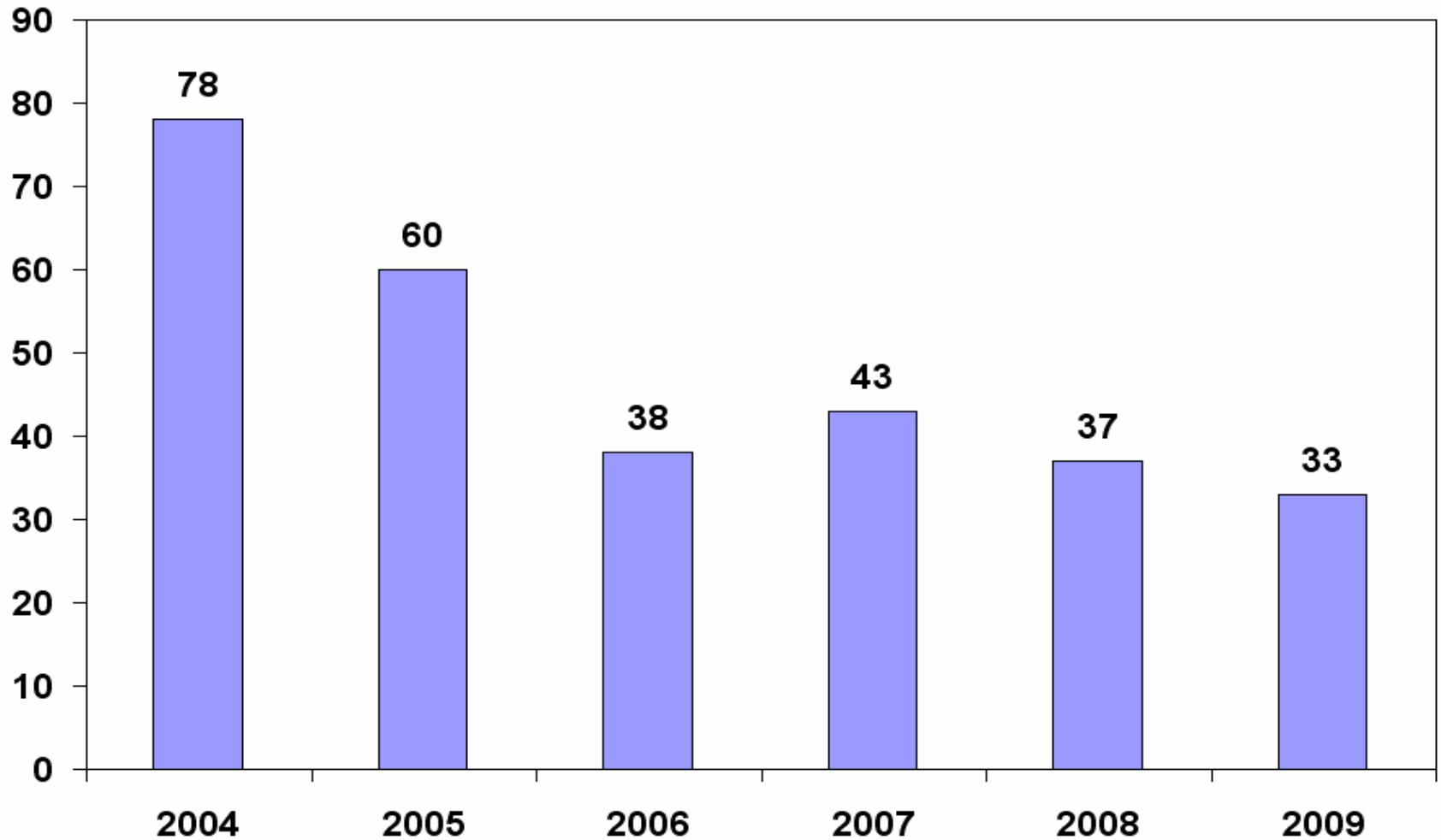
Source: AAR/BOE NAR data

Sodium Hydroxide Solution Trend



Source: AAR/BOE NAR data

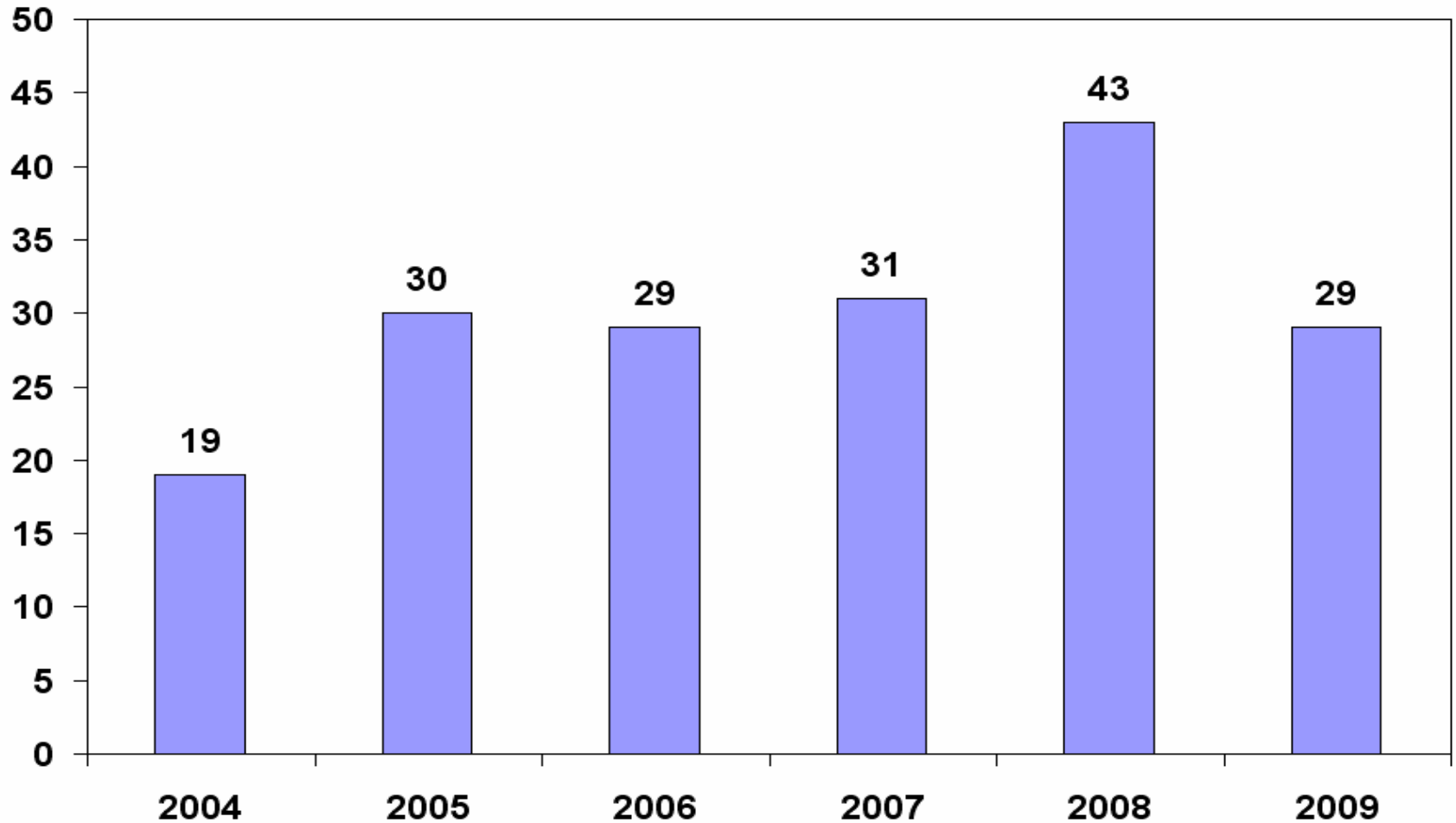
Anhydrous Ammonia Trend



Source: AAR/BOE NAR data

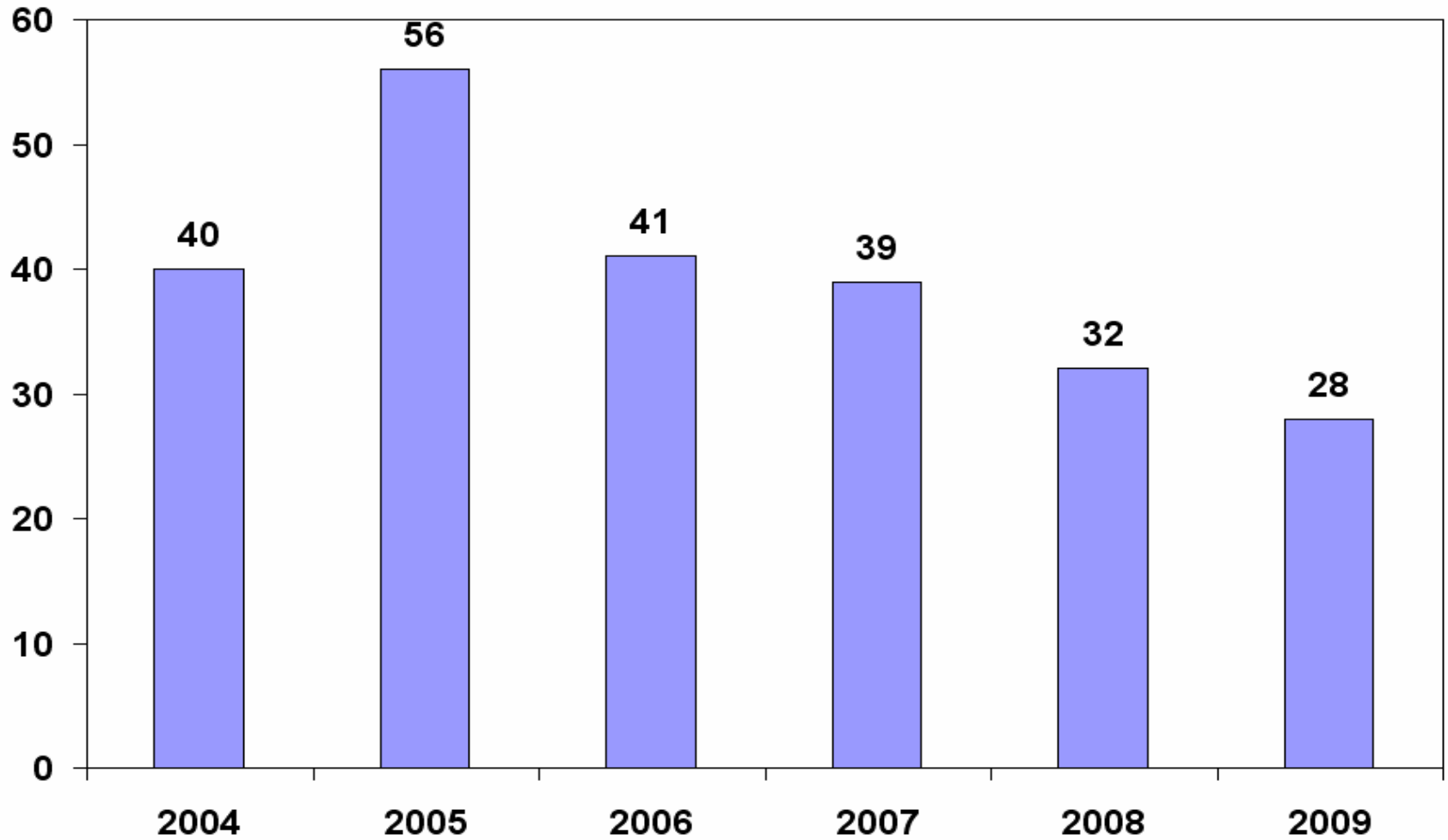
Fuel Oils Trend

Includes Diesel Fuel, Aviation Fuel, Fuel Oil, Kerosene



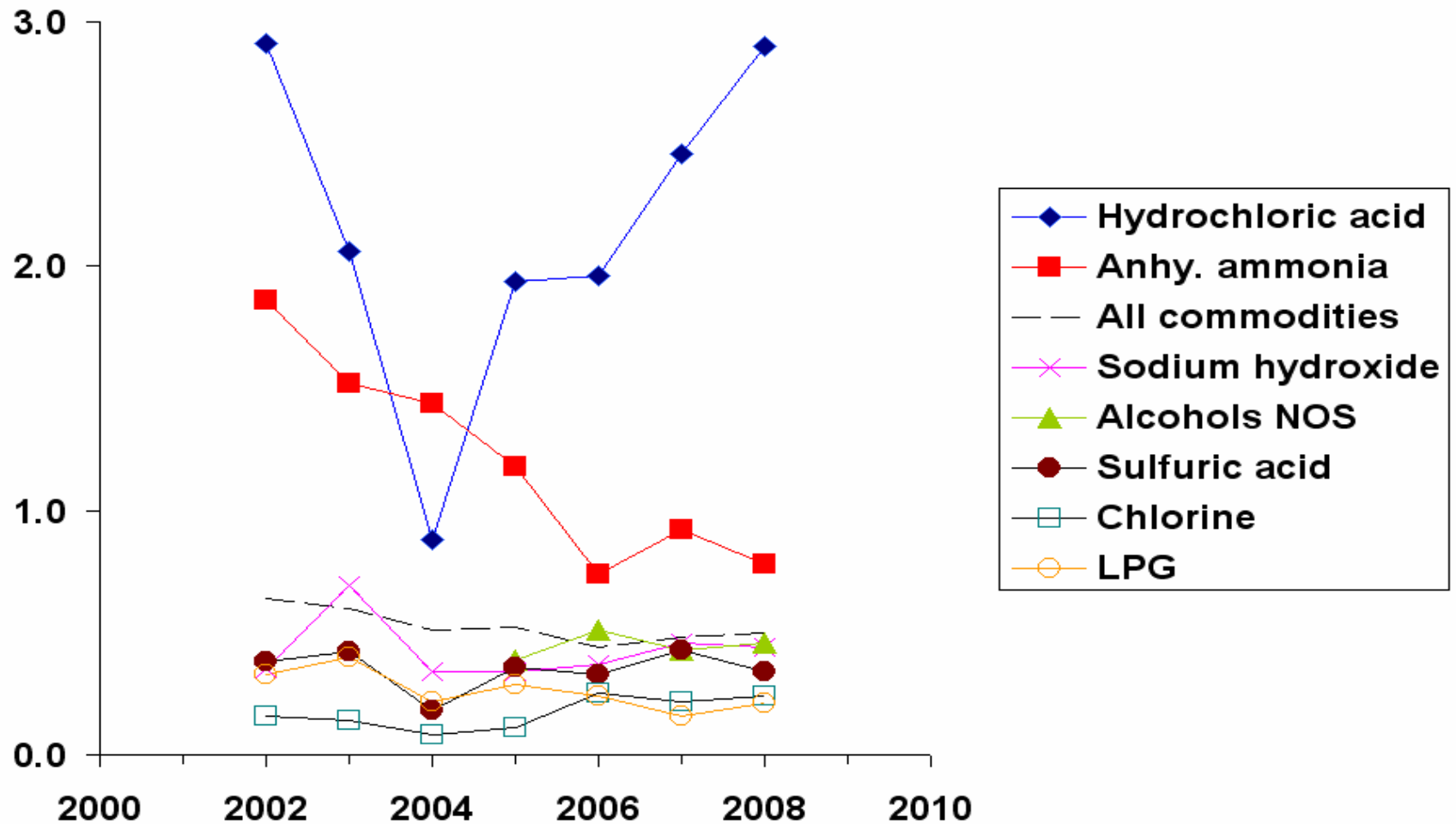
Source: AAR/BOE NAR data

LPG Trend

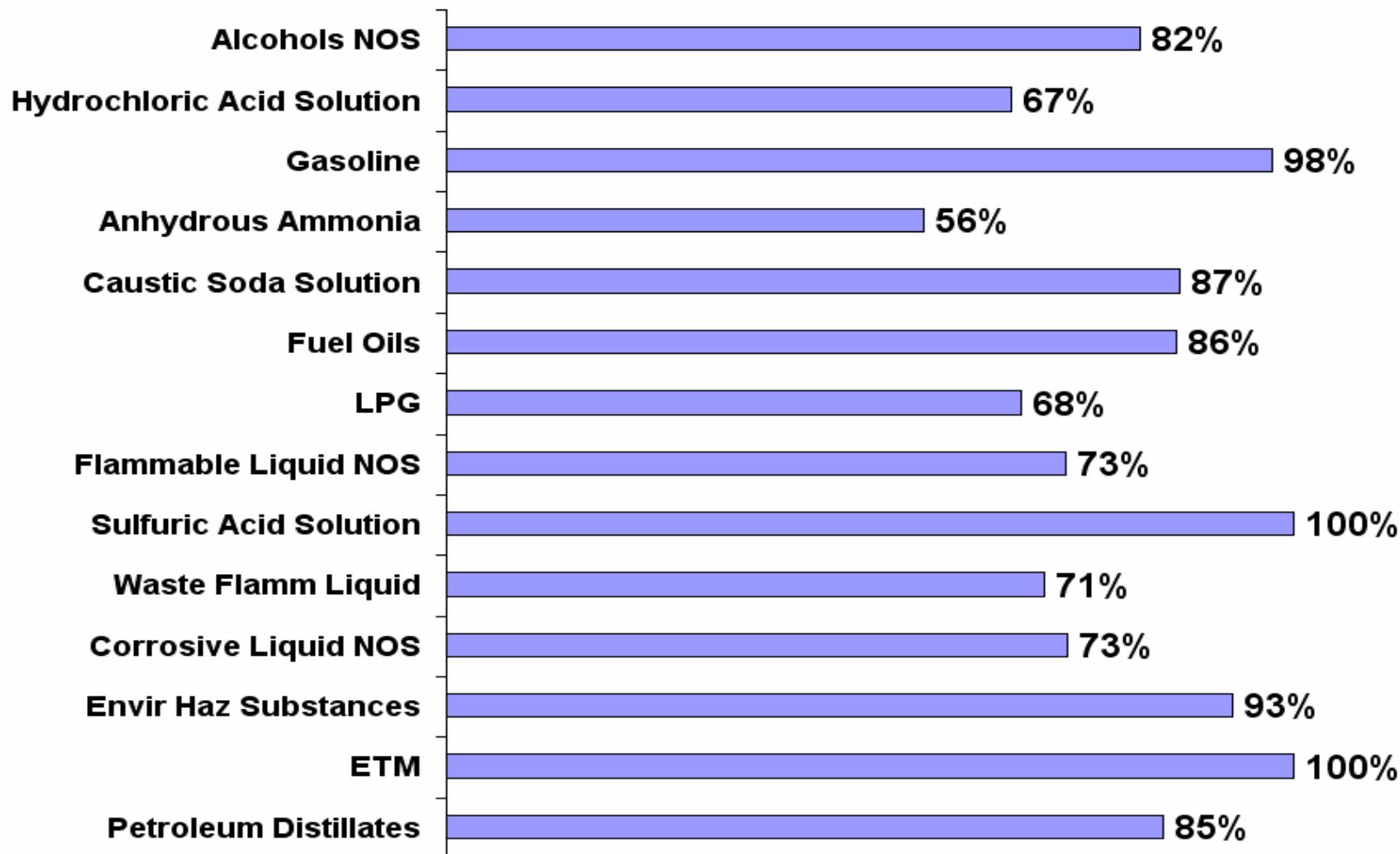


Source: AAR/BOE NAR data

NARs per 1,000 Originations Selected Commodities

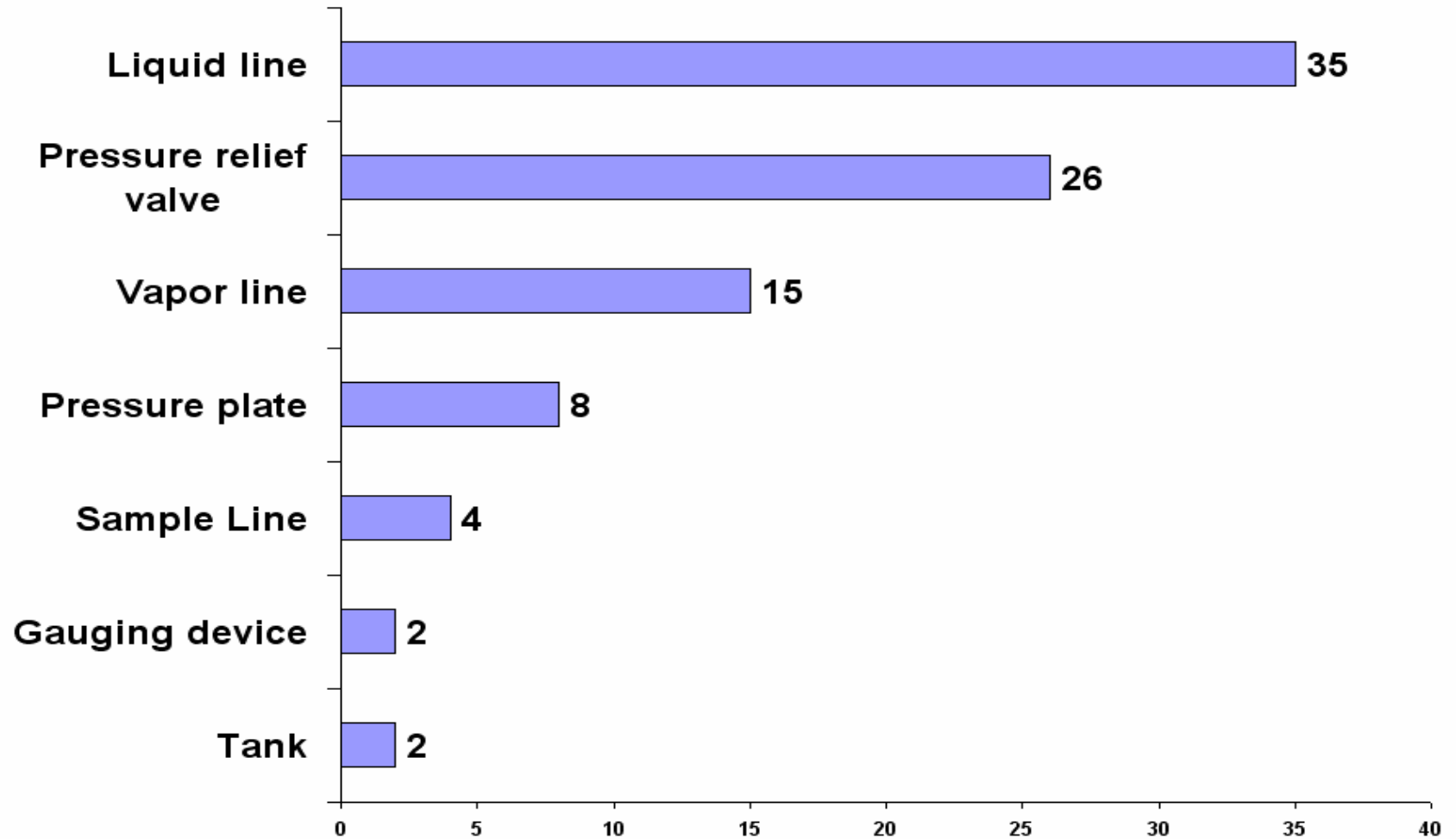


Percent of NARs Occurring on Loaded Trips - 2009



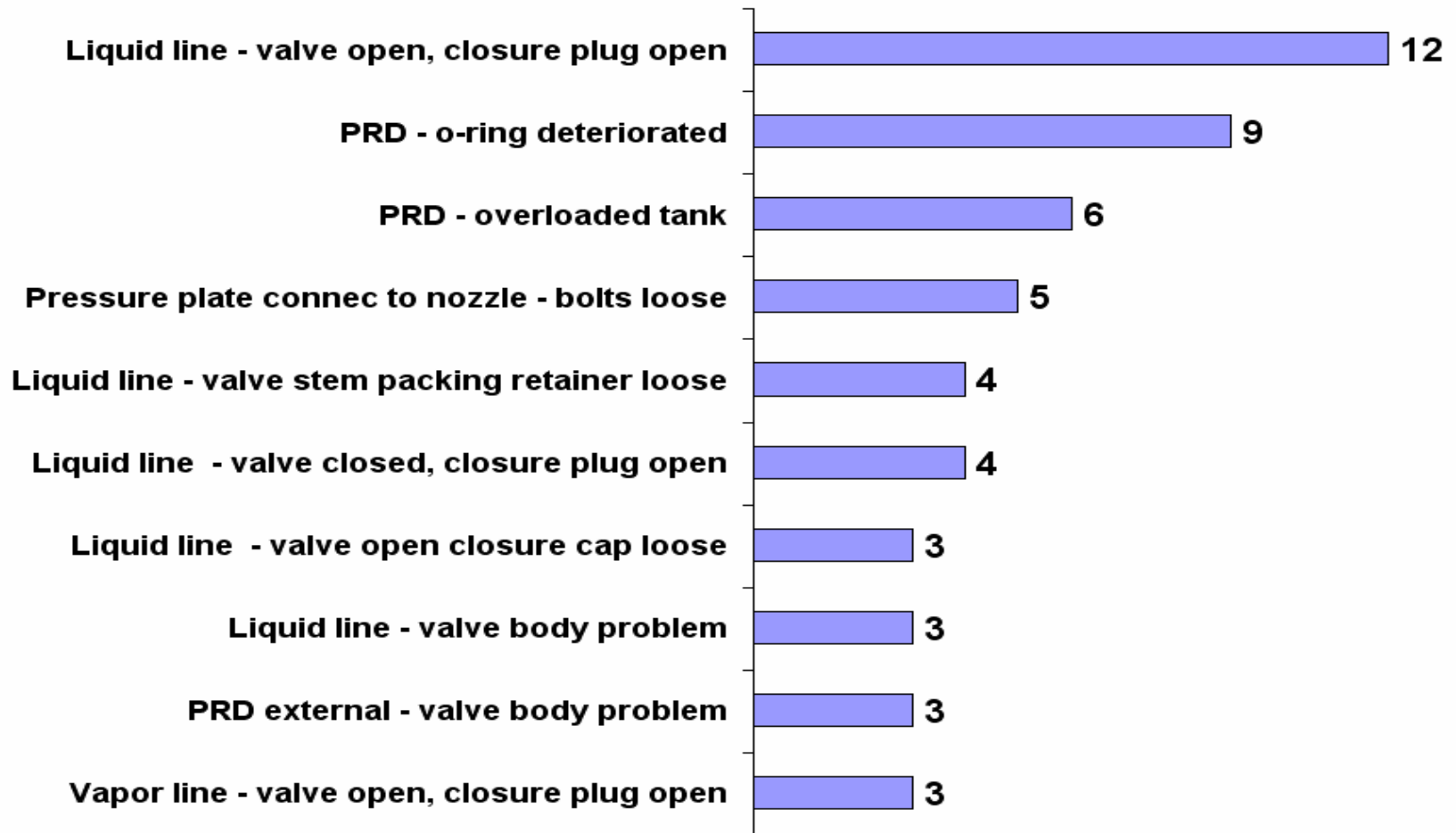
Source: AAR/BOE NAR data

Pressure Car NARs by Component 2009



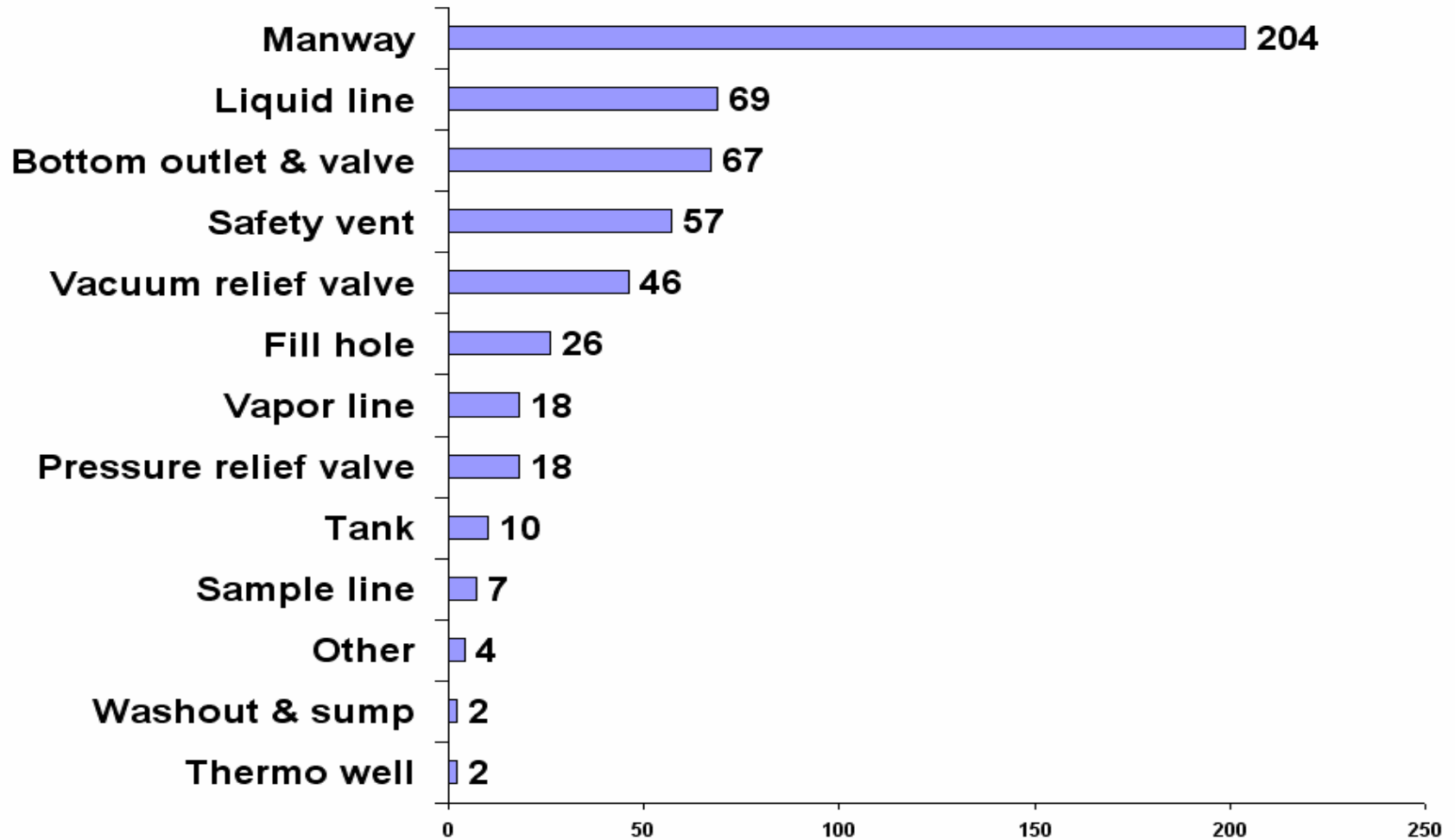
Source: AAR/BOE NAR data

Top Specific Causes for Pressure Cars - 2009



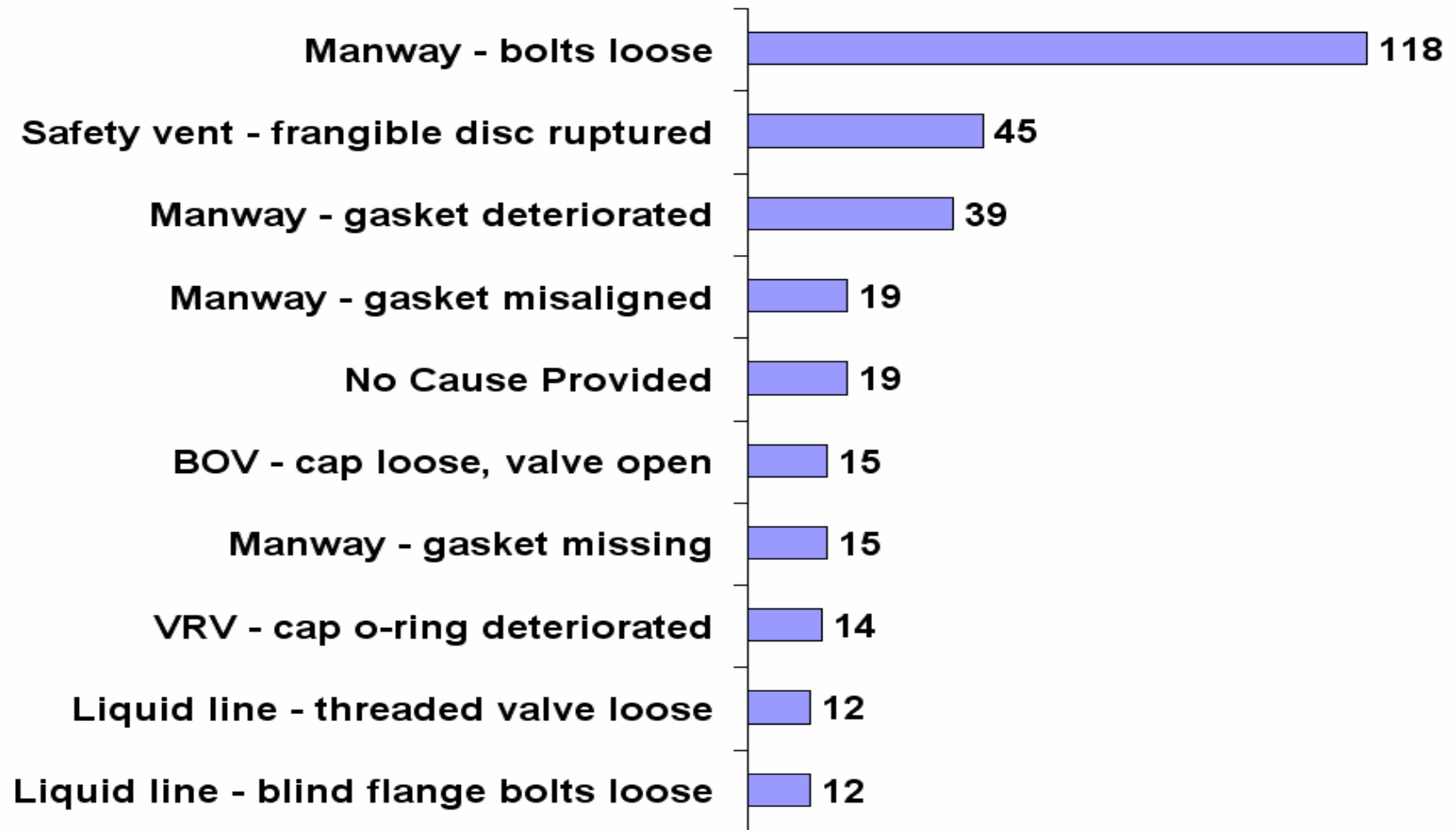
Source: AAR/BOE NAR data

Nonpressure Car NARs by Component - 2009



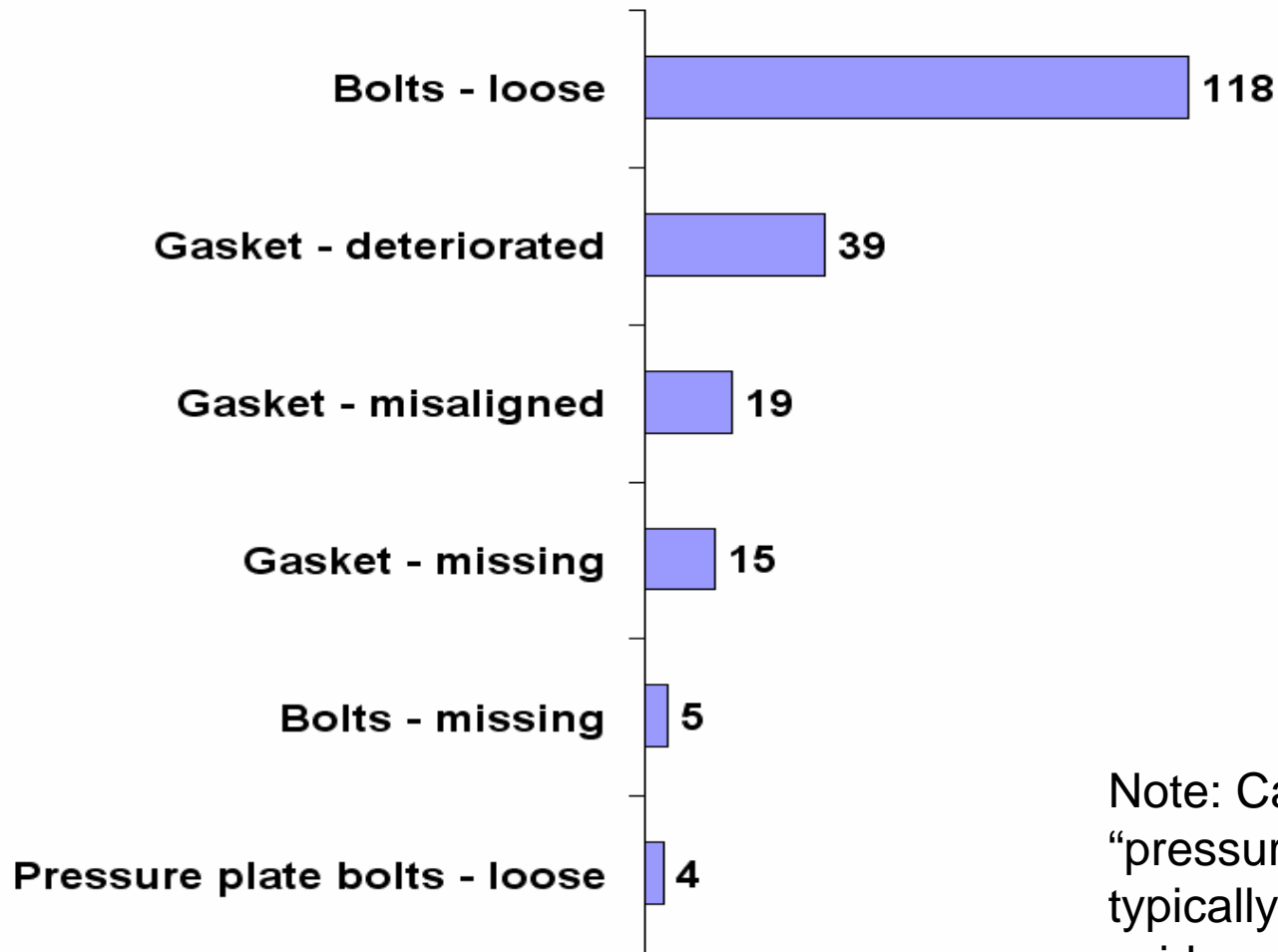
Source: AAR/BOE NAR data

Top Specific Causes for Nonpressure Cars - 2009



Source: AAR/BOE NAR data

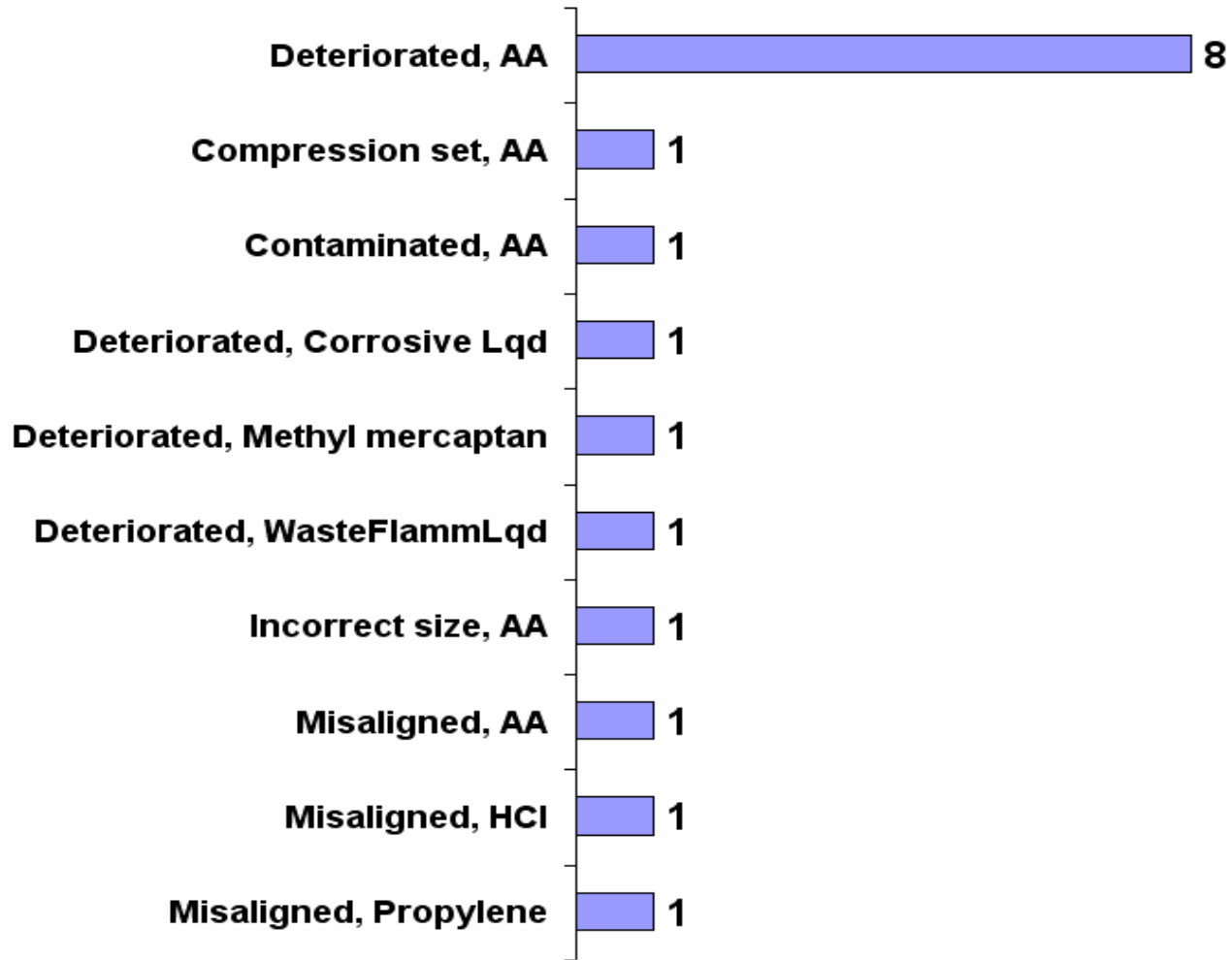
Manway Causes for Nonpressure Cars - 2009



Source: AAR/BOE NAR data

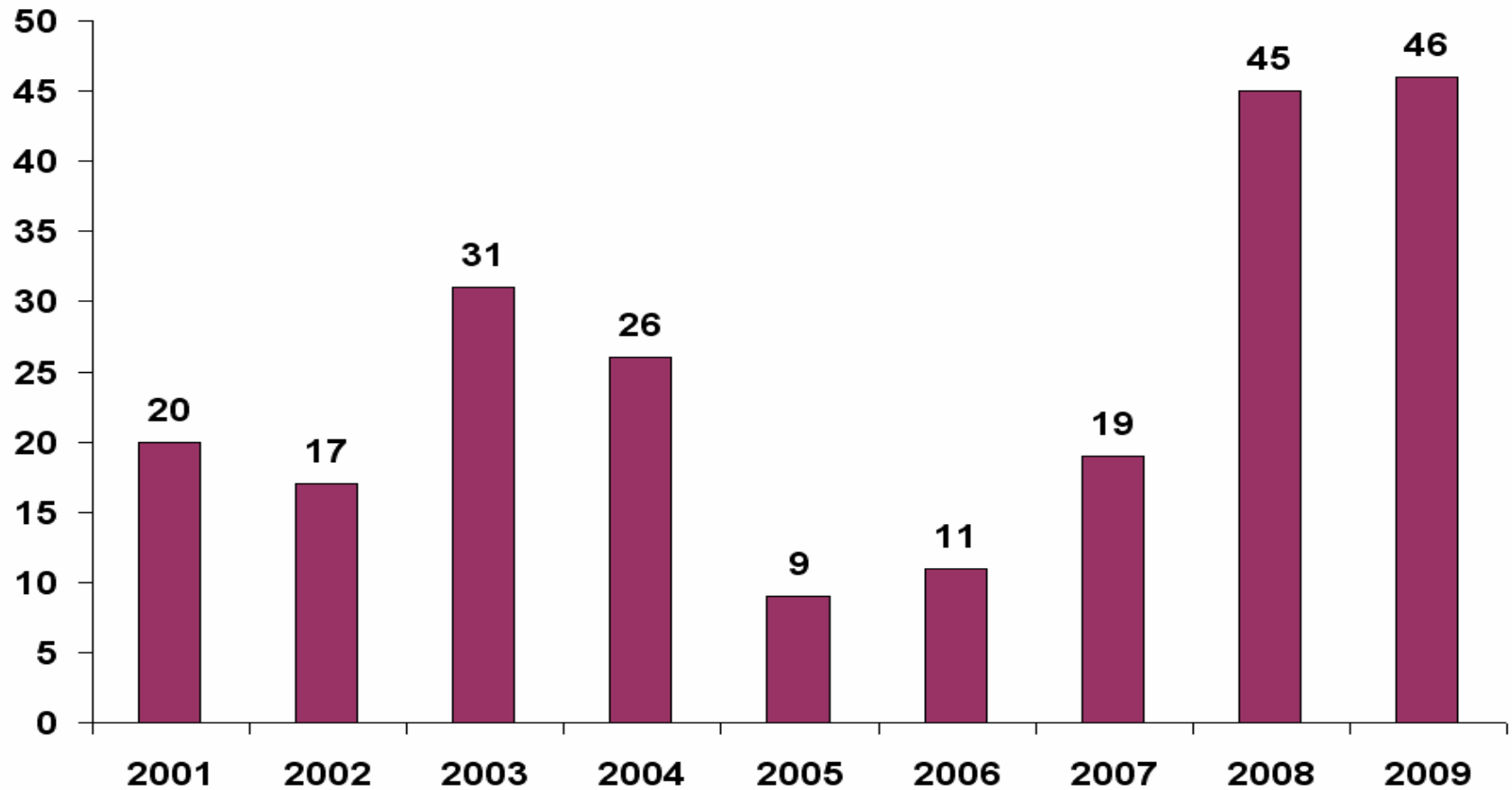
Note: Causes labeled “pressure plate” are typically referring to acid car arrangements

PRV O-ring NARs - 2009



Source: AAR/BOE NAR data

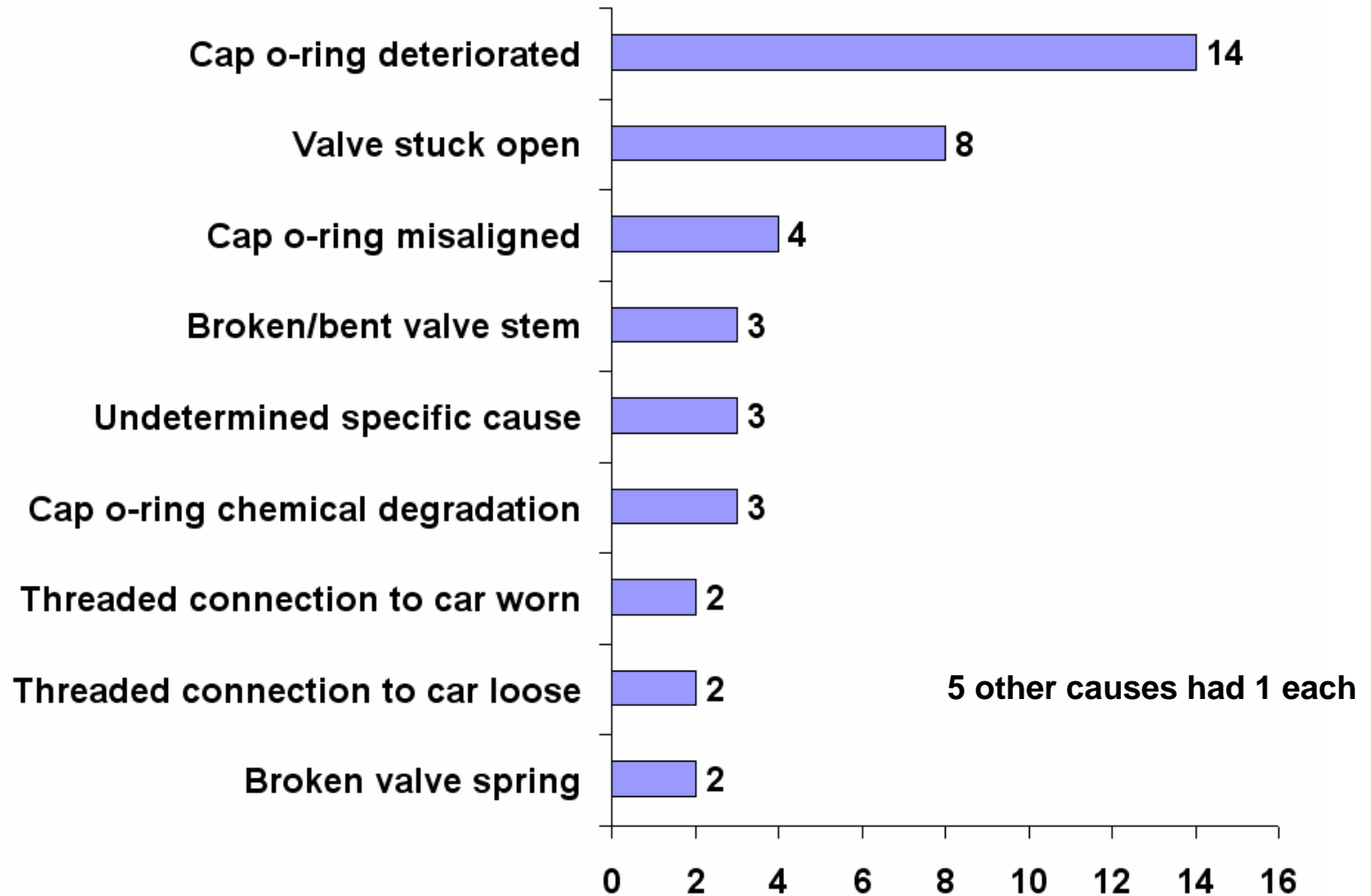
Vacuum Relief Valve NARs 2001- 2009



Source: AAR/BOE NAR data

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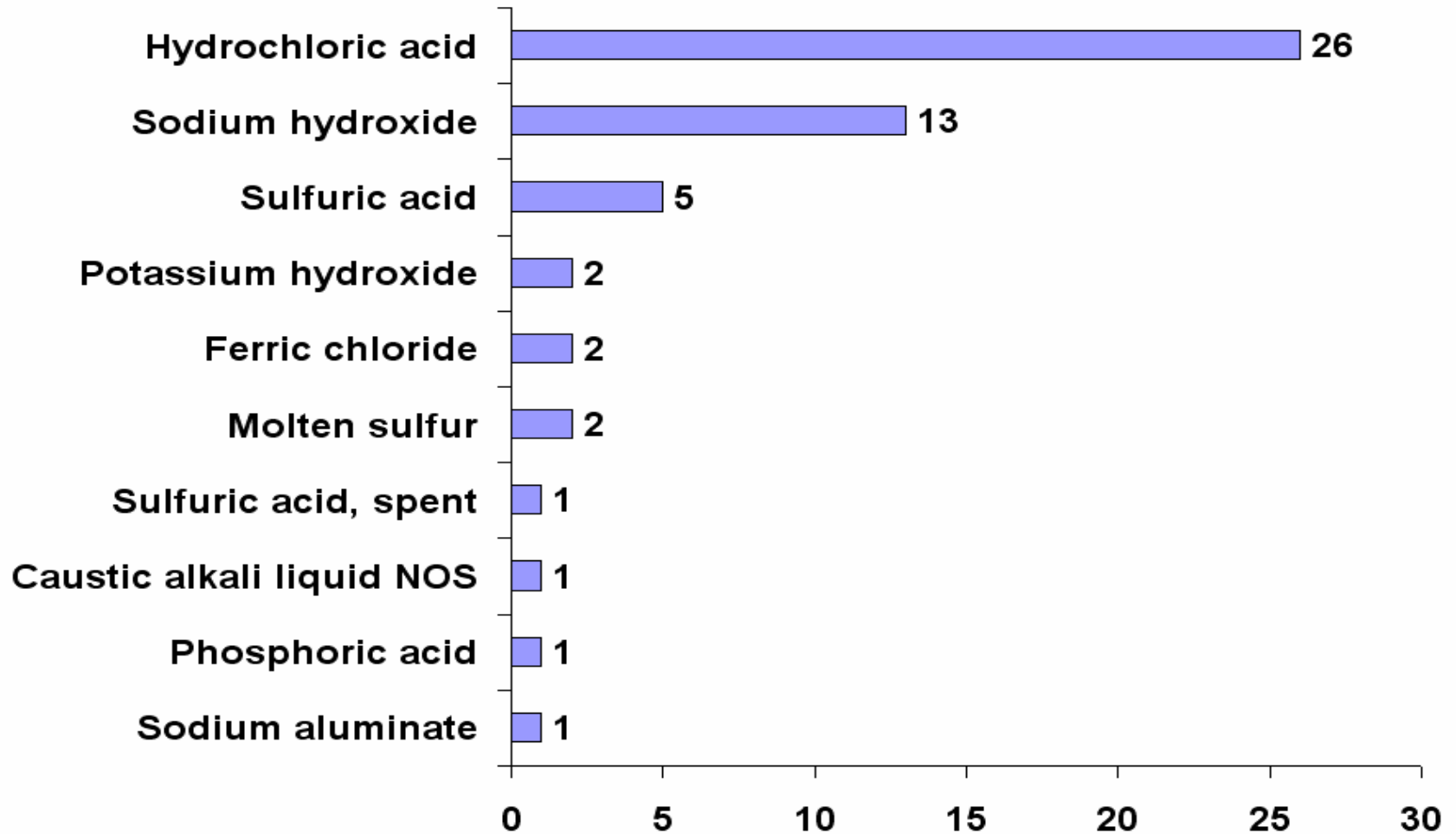
Vacuum Relief Valve NAR Causes 2009



Source: AAR/BOE NAR data

Frangible Disc NARs by Commodity

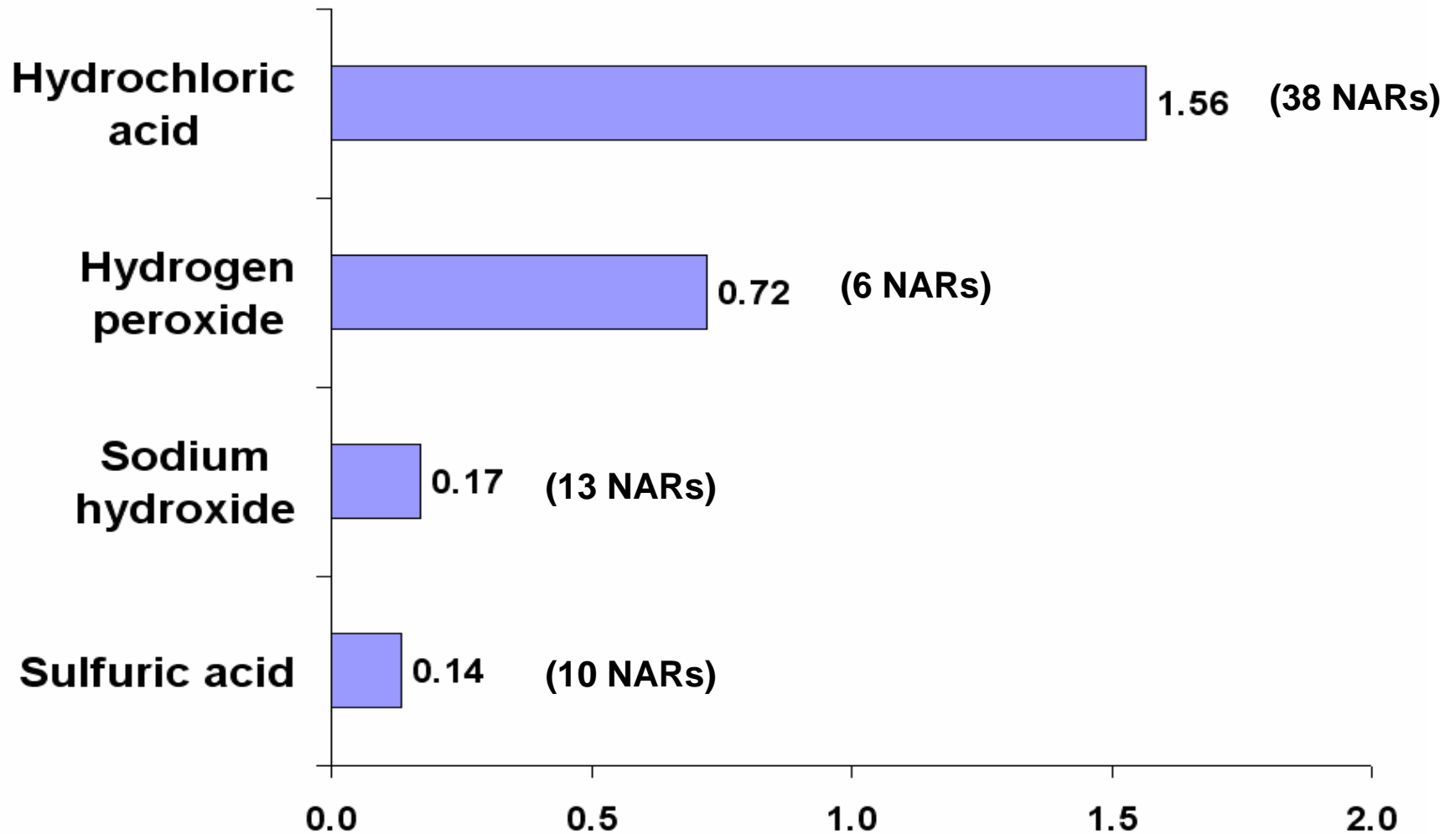
2009



Source: AAR/BOE NAR data

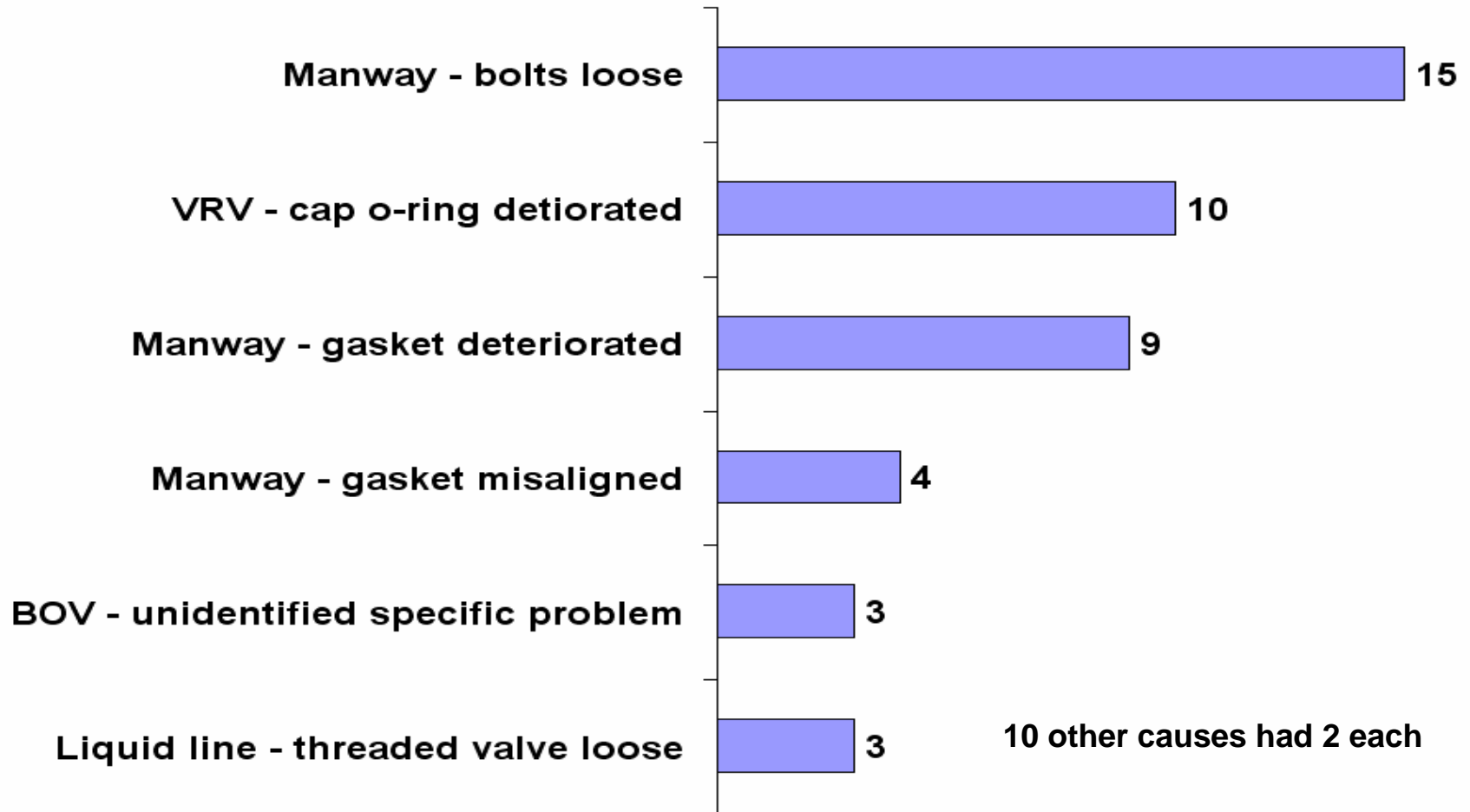
Frangible Disc NAR Rates per 1,000 Shipments -2008

Commodities with > 2 Frangible Disc NARs Shown



Top Specific Causes for Alcohols NOS

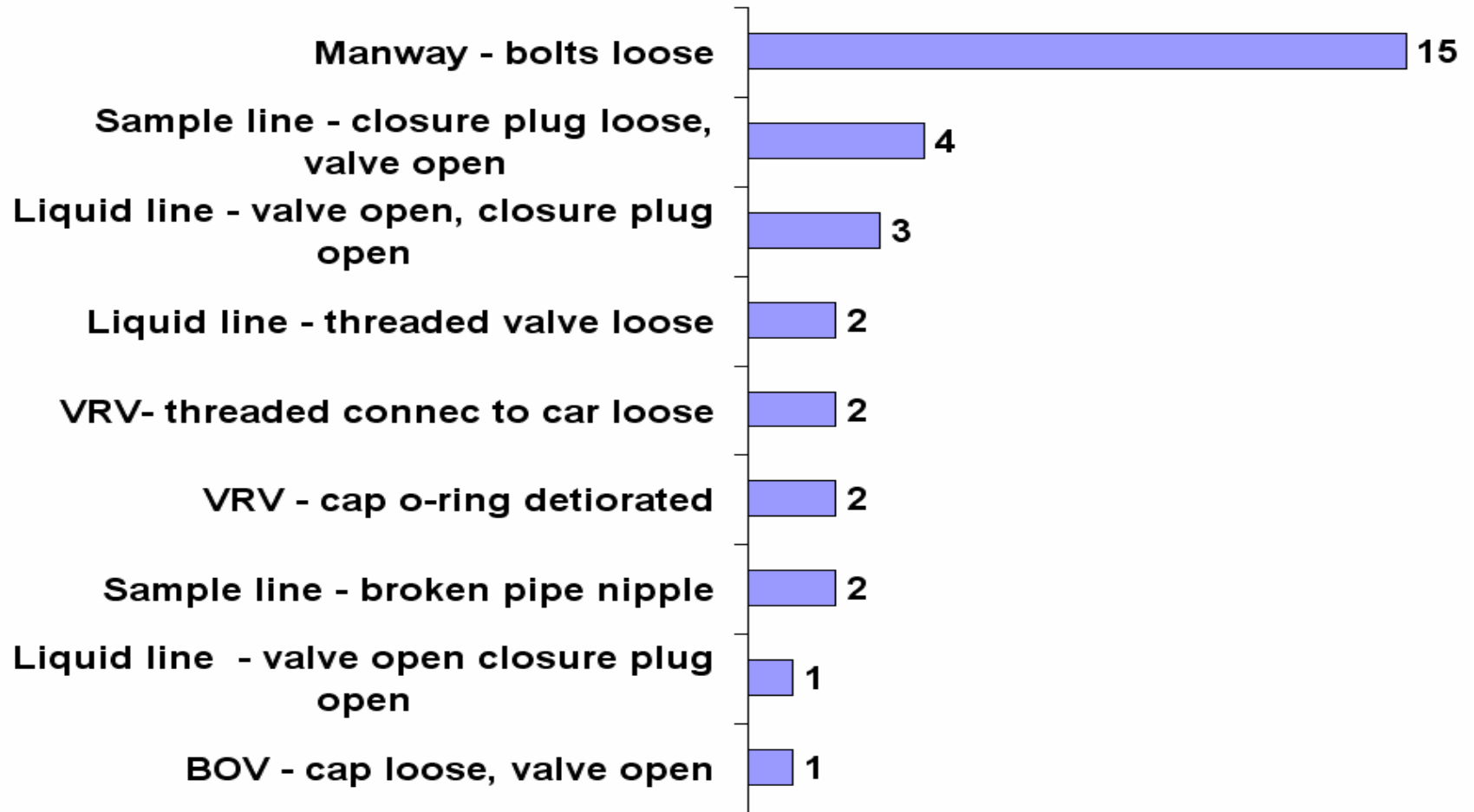
2009



Source: AAR/BOE NAR data

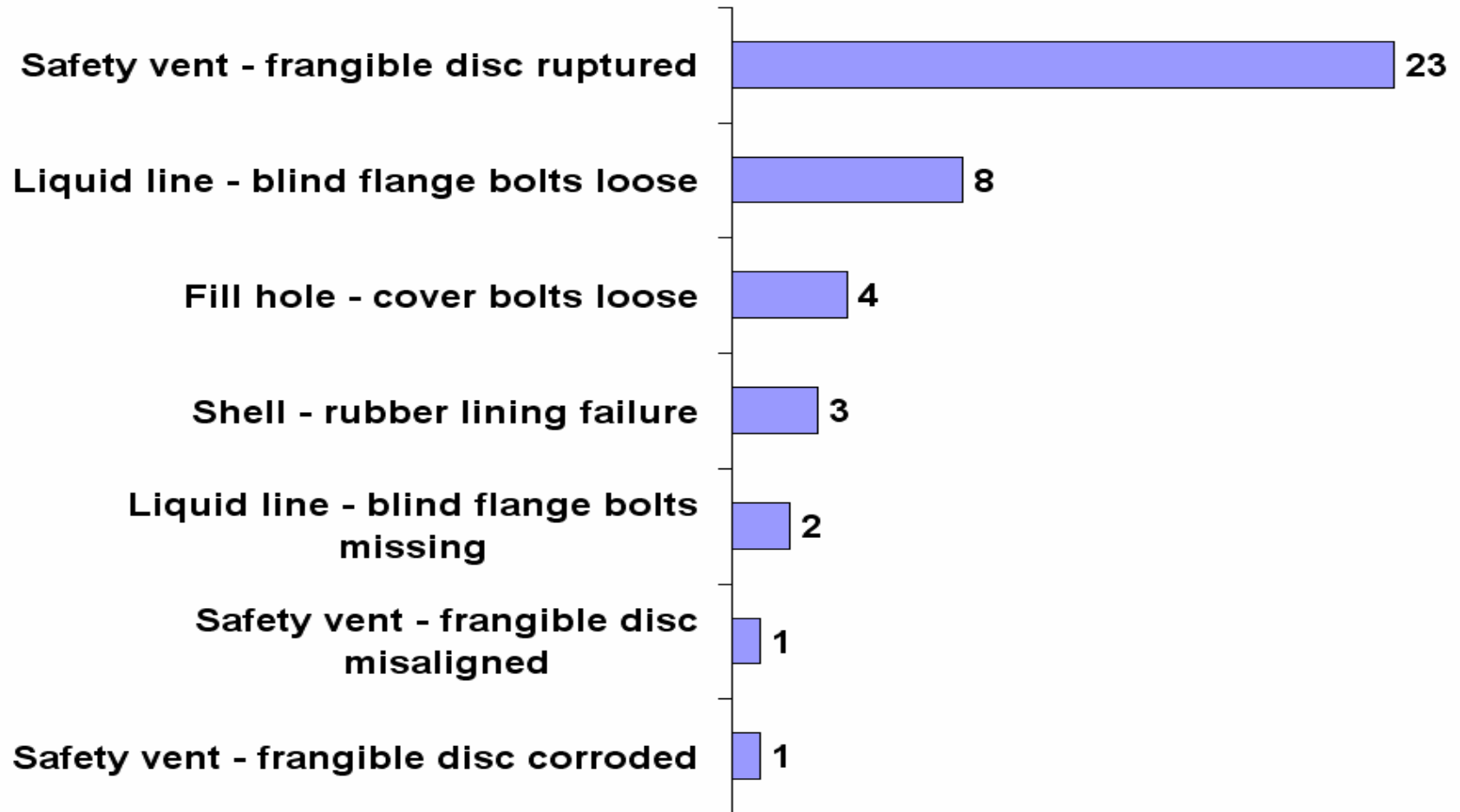
Top Specific Causes for Gasoline

2009



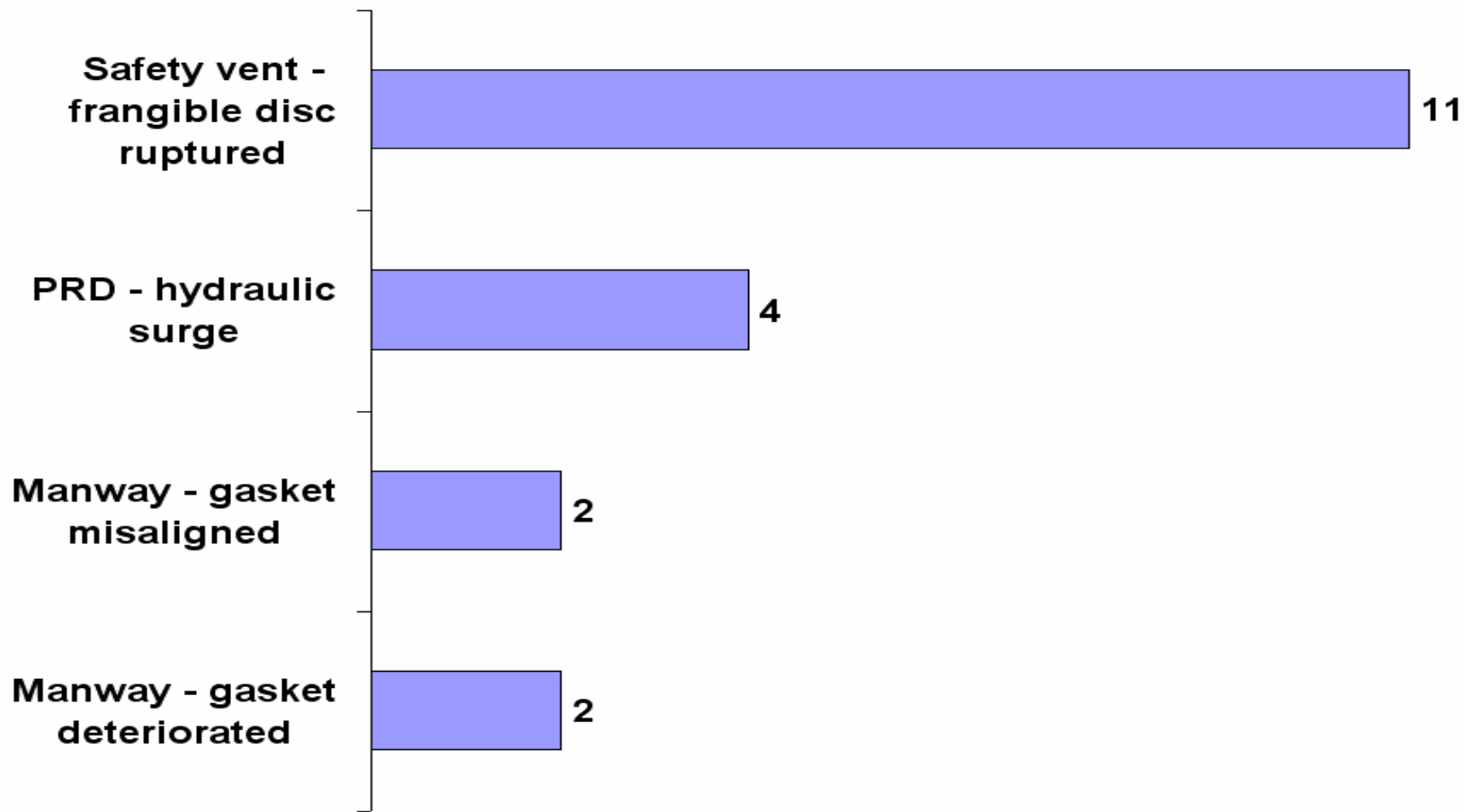
Source: AAR/BOE NAR data

Top Specific Causes for Hydrochloric Acid Solution 2009



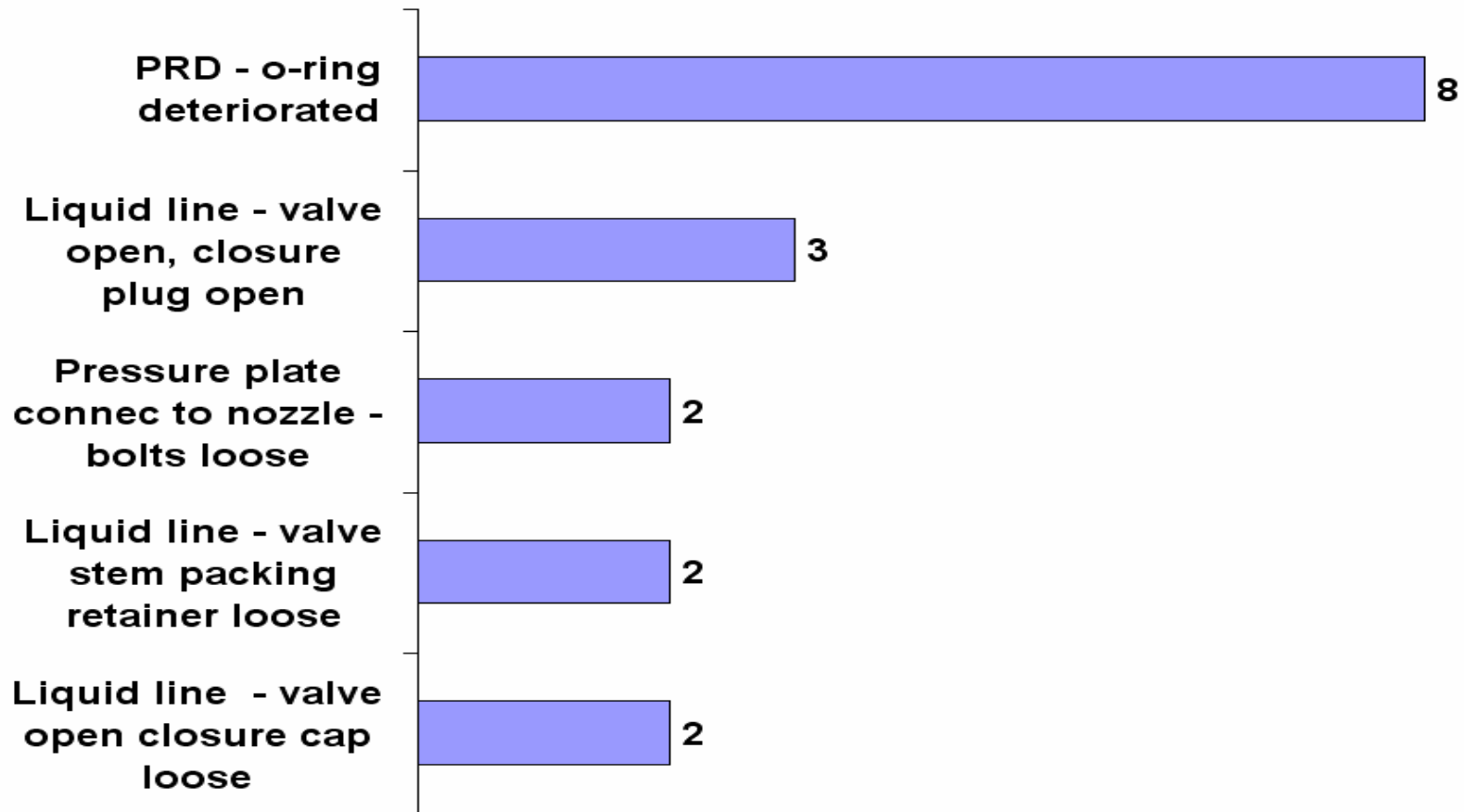
Source: AAR/BOE NAR data

Top Specific Causes for Sodium Hydroxide Solution 2009



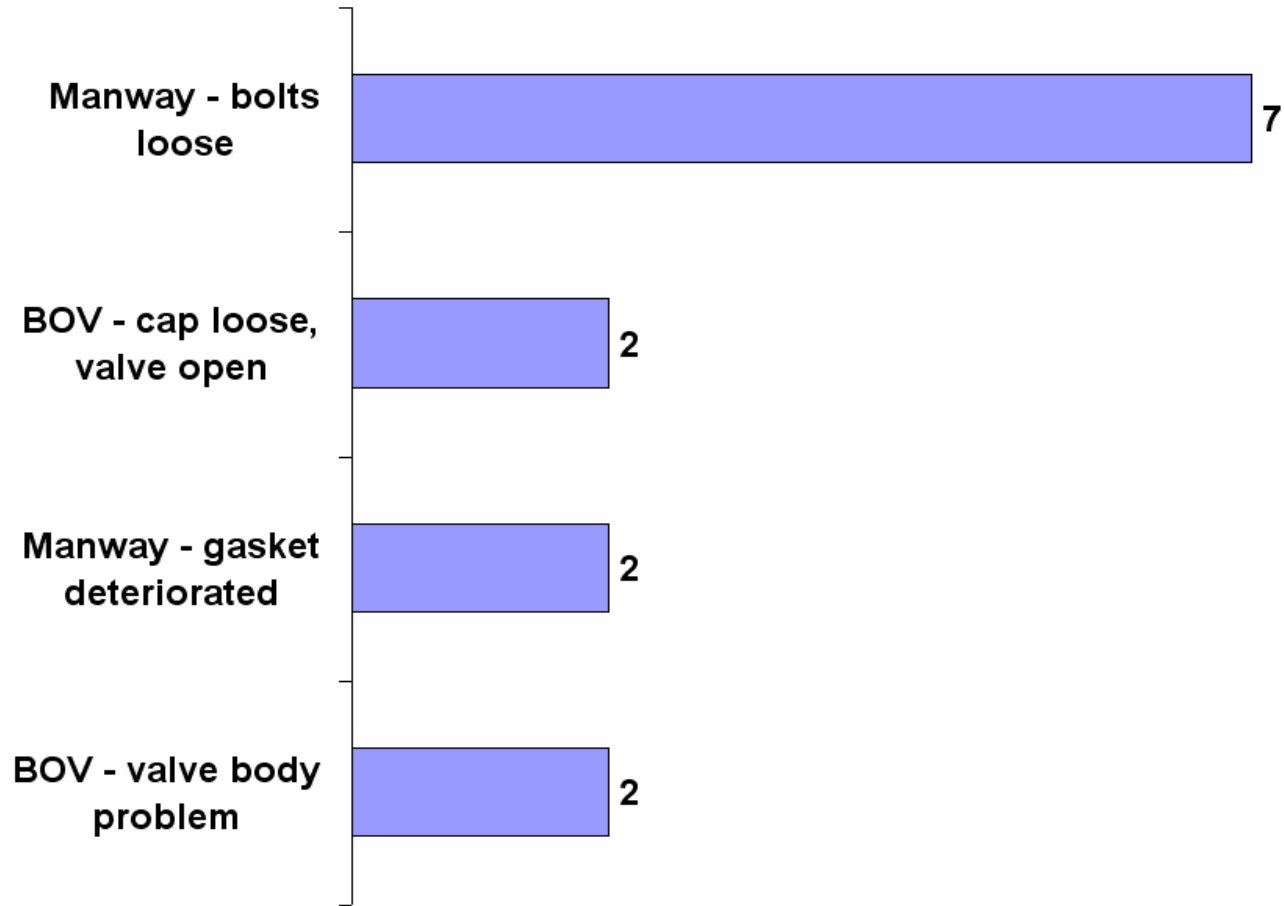
Source: AAR/BOE NAR data

Top Specific Causes for Anhydrous Ammonia 2009



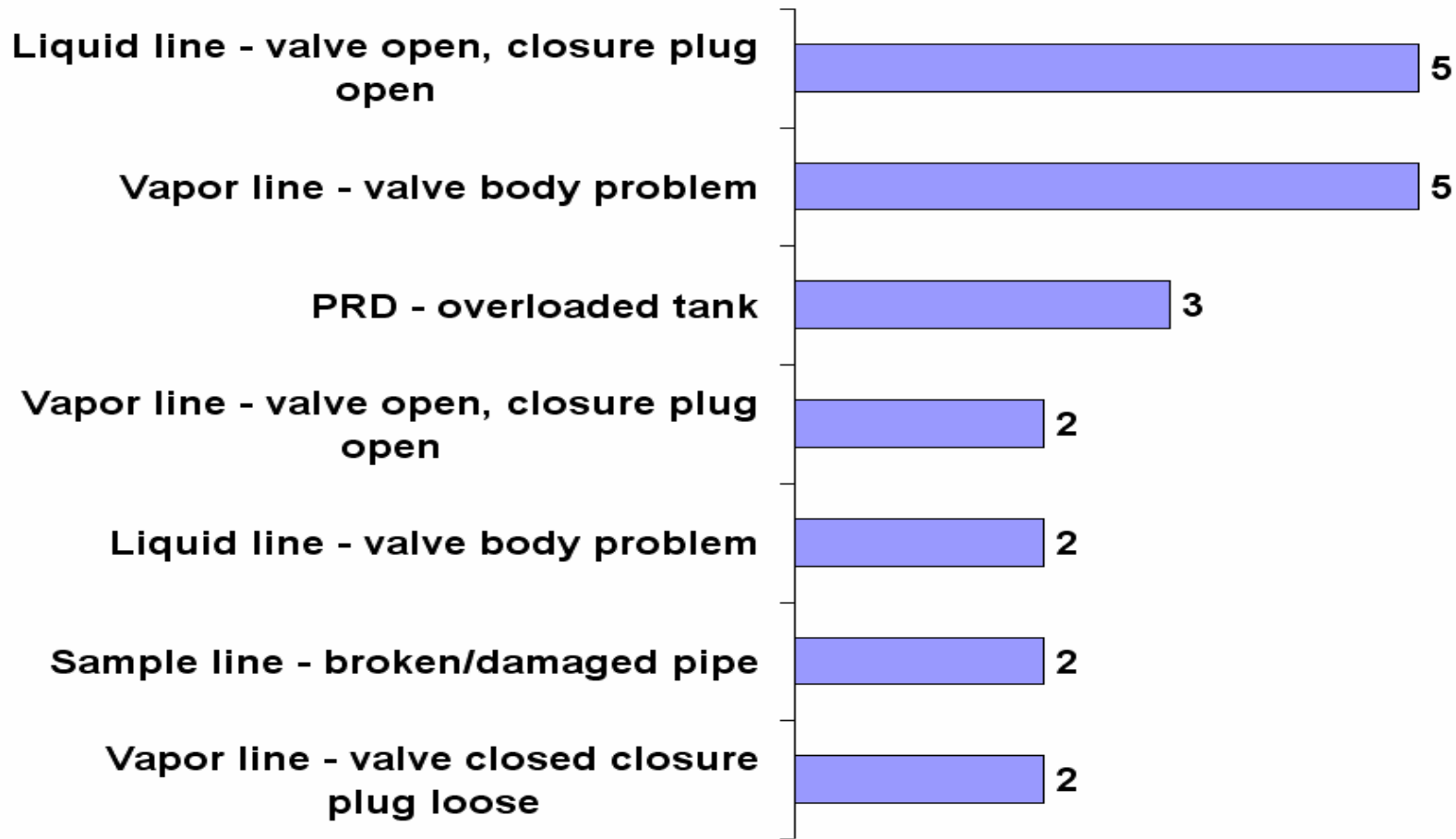
Source: AAR/BOE NAR data

Top Specific Causes for Fuel Oils 2009



Source: AAR/BOE NAR data

Top Specific Causes for Liquefied Petroleum Gases 2009



Source: AAR/BOE NAR data