

impacts of the Standard on small businesses and on alternatives to the rules that would minimize significant impacts on small businesses while achieving the objectives of the Occupational Safety and Health Act.

OSHA accepted written comments from June 23, 1998, through August 31, 1998. OSHA also conducted two public meetings, on July 28, 1998, in Chicago, Illinois and on July 31, 1998, in Washington, DC. Comments were received from employers, trade associations, unions, and grain workers. OSHA also considered studies and reports on relevant issues. All documents, studies, and comments received relevant to the review, transcripts of the oral hearings and documents discussed in this report are available at the OSHA Docket Office, Docket No. H-117C, Room N-3625, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210, telephone: (202) 693-2350.

Conclusions: Based on the comments and testimony of participants in this lookback review process and the studies and other evidence submitted to the public docket, OSHA concludes, as discussed in depth in "Regulatory Review of OSHA's Grain Handling Facilities Standard, February 2003" that the Agency's Standard should be continued without major change. The evidence also demonstrates that the Standard does not need to be rescinded or substantially amended to minimize significant impacts on a substantial number of small entities.

OSHA also finds that the Grain Handling Facilities Standard is necessary to protect employee health, is compatible with other OSHA standards, is not duplicative or in conflict with other Federal, State, or local government rules, is not inappropriately burdensome, and is consistent with the President's priorities and the principles of EO 12866. Further, no changes have occurred in technological, economic, or other factors that would warrant revision of the Standard at this time. The major industry and union groups recommend that the Standard remain in effect.

The major sectors affected by the Grain Handling Facilities Standard are grain elevators and grain mills. The Department of Agriculture estimated that in 1999 there were approximately 10,000 off-farm grain elevators with a storage capacity of 8 billion bushels. The SBA provided Bureau of Census data which estimated that, in 1996, there were approximately 92,000 grain elevator and 68,000 grain mill employees in the sectors principally impacted by the Standard. They worked

in approximately 5200 grain elevator firms and 1500 grain mill firms.

Prior to the issuance at the final Grain Handling Facilities Standard, from 1958 to 1987, there were an average of 7.3 deaths and 29.1 injuries per year related to grain explosions. After the Standard, from 1988-1998 there were an average of 2.3 deaths and 13.2 injuries per year. This is approximately a 70% reduction in deaths or, on average, 5 fatalities per year have been prevented, and there has been a 55% reduction in injuries. Deaths from grain explosions began to decrease in the five years prior to the issuance of the final Grain Handling Facilities Standard, as industry started instituting controls in response to the National Academy of Sciences (NAS) recommendations, the National Grain and Feed Association (NGFA) guidelines, various government recommendations, and the development of OSHA's proposed Grain Handling Facilities Standard.

Deaths from suffocations in grain also declined. In the 1977-1981 period analyzed for OSHA's Grain Handling Facilities Standard, suffocation deaths from grain averaged 10 per year. From 1988-1999 deaths from suffocation in grain averaged 5.6 per year. As in the case of deaths from explosions, the number of deaths from suffocations began decreasing in the early to mid-1980's, reflecting, in particular, the development of OSHA's proposed Grain Handling Facilities Standard. In the years since the promulgation of the Grain Handling Facilities Standard, the average number of annual grain suffocations has decreased by 44%; an average of 4.4 lives have been saved each year. Therefore, the Grain Handling Facilities Standard has substantially contributed to preventing an average of 9.4 fatalities per year from grain explosions and suffocations.

It is also clear that the Standard did not have any significant negative economic impact on a substantial number of small businesses. The large majority of firms effected are small businesses as defined by the Small Business Administration (SBA). Small businesses showed continued economic strength after OSHA issued the Grain Handling Facilities Standard at the end of 1987. Despite some consolidation in the industry, the percentage of businesses which are small by SBA definition has increased, in some cases substantially. From 1990 to 1996, the percentage of businesses which are small remained at 99% in SIC 5153 (Grain and Field Beans), increased from 91% to 92% in SIC 2041 (Flour Mill Products); from 81 to 88% in SIC 2044 (Rice milling), and there were similar

increases in other SICs. This increase in the percentage of firms which are small businesses indicate that the smaller firms still successfully compete against the larger firms and remain economically viable after the issuance of the Grain Handling Facilities Standard.

The data on number of firms by employee size also demonstrates the continuous competitiveness of affected small businesses after OSHA issued the Grain Handling Facilities Standard. From 1990-1996, in the major grain elevator SICs (723, 4221, 5153), the number of firms in the 1-19 employee category decreased about 14%, remained almost the same in the 20-99 employee category, and increased about 12% in the 100-499 employee category. From 1990-1996, in the major grain mill SICs (2041, 2044, 2042, 2048, 2079), the number of firms with 1-19 employees increased slightly, the number of firms with 20-99 employees increased by 14%, and the number with 100-499 employees decreased 15%.

These data indicate that, broken down by size categories, there were small fluctuations, but overall, the number of smaller firms in the various employment categories increased as often as they decreased. This evidence suggests that smaller firms remained economically competitive and viable.

Further evidence that small businesses remained economically competitive after the Grain Handling Facilities Standard was issued is indicated by the employment data. Small businesses (1-499 employees) in the major grain handling SICs had no reduction in employment from 1990-1996, employment being approximately 73,000 in both years. In the major grain mill SICs, employment in small businesses declined slightly in that period from 29,000 to 28,000.

Thus, data available to OSHA indicate that the small businesses in the grain handling industries remained economically competitive after OSHA issued the Grain Handling Facilities Standard. The number of small business firms and employment in small business firms, generally, did not decline, and the percentage of firms that were small businesses increased.

Furthermore, OSHA asked the public for comments in the **Federal Register** document and at the public meetings on the impacts of the Standard on small businesses. OSHA received no complaints from small businesses on the overall impact of the Standard on small businesses.

There is a continued need for the Grain Handling Facilities Standard. Workers continue to be at risk of death and injury from grain explosions, fires,