Grain Handling Facilities Standard

AGENCY: Occupational Safety and Health Administration (OSHA), Labor.

ACTION: Completion of regulatory review.

SUMMARY: The Occupational Safety and Health Administration (OSHA), has completed a section 610 ("lookback") review of its Grain Handling Facilities Standard, 29 CFR 1910.272, pursuant to section 610 of the Regulatory Flexibility Act and section 5 of Executive Order 12866. That review, "Regulatory Review of OSHA's Grain Handling Standard, February 2003," demonstrates that the Standard has reduced injuries 55% and deaths 70% from grain explosions and reduced deaths from grain suffocations by 44%. On average, the Standard has prevented 9,4 deaths per year. The review indicates that the standard does not impose a significant economic impact on small businesses and that public commenters agree that the standard should remain in effect. Based on comments, OSHA will issue several clarifications and will consider several technical inquiries about the Grain Handling Standard to: Alcmene Haloftis, Directorate of Compliance, Rm. 3603, telephone (202) 693–1939. Direct technical inquiries about the Grain Handling Standard to: Alcmene Haloftis, Directorate of Compliance, Rm. 3603, telephone (202) 693–1850, or visit the OSHA Homepage at www.OSHA.dol.gov. Direct press inquiries to Bonnie Friedman, Director of Information and Consumer Affairs, Rm. N–3647, telephone (202) 693–1999.

ADDRESSES: Copies of the entire report may be obtained from the OSHA Publication Office, Rm. N–3101, 200 Constitution Avenue, NW., Washington, DC 20210, tel. (202) 693–2119.


The Grain Handling Facilities Standard contains requirements for the control of grain dust fires and explosions, and certain other safety hazards associated with grain handling facilities. It applies in addition to all other relevant provisions of part 1910 (or part 1917 at marine terminals). The Grain Handling Facilities Standard applies to the following types of grain handling facilities: grain elevators, feed mills, flour mills, rice mills, dust pelletizing plants, dry corn mills, soybean flaking operations, and the dry grinding operations of soycake.

The Grain Handling Facilities Standard contains provisions that address several safety hazards. The hazards these provisions address include: Fires; explosions; toxic substance and oxygen deficiencies from entry into bins, silos, or tanks; release of hazardous energy from equipment; and engulfment by grain in bins, silos, or tanks.

This section 610 review for the Grain Handling Facilities Standard focused on two endpoints for its risk reduction analyses: (1) Injuries and fatalities from grain dust explosions; and (2) suffocations which result when a worker is engulfed or crushed by grain. These endpoints were selected because accessible data existed for these endpoints. Furthermore, a reduction in fatalities from suffocations and reductions in both injuries and fatalities from explosions are primary and substantial benefits anticipated from the promulgation of the Standard.

In 1998, the Occupational Safety and Health Administration (OSHA) began a review of its Grain Handling Facility Standard, under section 610 of the Regulatory Flexibility Act (5 U.S.C. 601, 610) and section 5 of Executive Order (EO) 12866 on Regulatory Planning and Review. OSHA has completed this review of the Grain Handling Facilities Standard, and it is presented in the following Federal Register document announces the availability of that review document and briefly summarizes it.

The purpose of a review under section 610 of the Regulatory Flexibility Act (RFA): (S)hall be to determine whether such rule should be continued without change, or should be rescinded, or amended consistent with the stated objectives of applicable statutes to minimize any significant impact of the rules on a substantial number of small entities. The Agency shall consider the following factors:

(1) The continued need for the rule;
(2) The nature of complaints or comments received concerning the rule from the public;
(3) The complexity of the rule;
(4) The extent to which the rule overlaps, duplicates or conflicts with other Federal rules, and to the extent feasible, with State and local governmental rules; and
(5) The length of time since the rule has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the rule.

The review requirements of section 5 of EO 12866 require agencies:

To reduce the regulatory burden on the American people, their families, their communities, their State, local, and tribal governments and their industries; to determine whether regulations promulgated by the [agency] have become unjustified or unnecessary as a result of changed circumstances; to confirm that regulations are both compatible with each other and not duplicative or inappropriately burdensome in the aggregate; to ensure that all regulations are consistent with the President’s priorities and the principles set forth in this Executive Order, within applicable law; and to otherwise improve the effectiveness of existing regulations.

To carry out these reviews, on June 23, 1998, OSHA asked the public for comments on all issued raised by these provisions (63 FR 34139). Among other things, OSHA requested comments on: The benefits and utility of the rule in its current form; the continued need for the rule; the complexity of the rule; and whether, and to what extent, the rule overlaps, duplicates, or conflicts with other Federal, State, and local government rules. OSHA asked for comments on new developments in technology, economic conditions, or other factors affecting the ability of covered firms to comply with the Grain Handling Facilities Standard. OSHA also requested information on the
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 presented 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 or 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 of 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. 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 major 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 921 (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, 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,

EFFECTIVE DATE: April 1, 2003.

FOR FURTHER INFORMATION CONTACT: Harold J. Ashner, Assistant General Counsel, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street, NW., Washington, DC 20005, 202–328–4024 (TTY/TDD users may call the Federal relay service toll-free at 1–800–877–8339 and ask to be connected to 202–326–4024.)

SUPPLEMENTARY INFORMATION: The PBGC’s regulations prescribe actuarial assumptions—including interest assumptions—for valuing and paying plan benefits of terminating single-employer plans covered by title IV of the Employee Retirement Income Security Act of 1974. The interest assumptions are intended to reflect current conditions in the financial and annuity markets.

Three sets of interest assumptions are prescribed: (1) a set for the valuation of benefits for allocation purposes under section 4044 (found in Appendix B to part 4044), (2) a set for the PBGC to use to determine whether a benefit is payable as a lump sum and to determine lump-sum amounts to be paid by the PBGC (found in Appendix B to part 4022), and (3) a set for private-sector pension practitioners to refer to if they wish to use lump-sum interest rates determined using the PBGC’s historical methodology (found in Appendix C to part 4044).

Accordingly, this amendment (1) adds to Appendix B to part 4044 the interest assumptions for valuing benefits for allocation purposes in plans with valuation dates during April 2003, (2) adds to Appendix B to part 4022 the interest assumptions for the PBGC to use for its own lump-sum payments in plans with valuation dates during April 2003, and (3) adds to Appendix C to part 4022 the interest assumptions for private-sector pension practitioners to refer to if they wish to use lump-sum interest rates determined using the PBGC’s historical methodology for valuation dates during April 2003.

For valuations of other benefits for allocation purposes, the interest assumptions that the PBGC will use (set forth in Appendix B to part 4044) will be 4.90 percent for the first 20 years following the valuation date and 5.25 percent thereafter. These interest assumptions represent a decrease of 0.20 percent (from those in effect for March 2003) for the first 20 years following the valuation date and are otherwise unchanged.

The interest assumptions that the PBGC will use for its own lump-sum payments (set forth in Appendix B to part 4022) will be 3.50 percent for the period during which a benefit is in pay status and 4.00 percent during any years preceding the benefit’s placement in pay status. These interest assumptions represent a decrease (from those in effect for March 2003) of 0.25 percent for the period during which a benefit is in pay status and are otherwise unchanged.

For private-sector payments, the interest assumptions (set forth in Appendix C to part 4022) will be the same as those used by the PBGC for determining and paying lump sums (set forth in Appendix B to part 4022).

The PBGC has determined that notice and public comment on this amendment are impracticable and contrary to the public interest. This finding is based on the need to determine and issue new interest assumptions promptly so that the assumptions can reflect, as accurately as possible, current market conditions.

Because of the need to provide immediate guidance for the valuation and payment of benefits in plans with valuation dates during April 2003, the PBGC finds that good cause exists for making the assumptions set forth in this amendment effective less than 30 days after publication.

The PBGC has determined that this action is not a “significant regulatory action” under the criteria set forth in Executive Order 12866.

Because no general notice of proposed rulemaking is required for this amendment, the Regulatory Flexibility Act of 1980 does not apply. See 5 U.S.C. 601(2).

List of Subjects
29 CFR Part 4022
Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.
29 CFR Part 4044
Employee benefit plans, Pension insurance, Pensions.

In consideration of the foregoing, 29 CFR parts 4022 and 4044 are amended as follows: