PLASTICS
INDUSTRY ASSOCIATION

*via www.regulations.gov*
Ms. Lisa Long
Directorate of Standards and Guidance
Occupational Safety and Health Administration
U.S. Department of Labor

Re: Mechanical Power Presses Update; Request for Information
Docket No. OSHA-2007-0003

Dear Ms. Long:

The Plastics Industry Association (PLASTICS) appreciates the opportunity to respond to OSHA's request for information (RFI) for the Mechanical Power Presses Update.[1] PLASTICS is the only organization that supports the entire plastics supply chain—including material suppliers, processors, converters and machinery and equipment manufacturers—representing nearly one million workers in the $432 billion U.S. industry. With longstanding experience promoting safe working conditions in the plastics industry, and as an American National Standards Institute (ANSI)-accredited standards developer with a Machinery Safety Standards Committee,[2] PLASTICS continues to have an interest in OSHA's standards and updates.

## I. Hazards and Incidents

OSHA sought comments about the types and frequencies of injuries caused by mechanical power presses. In addition to Table 1 in the RFI, we encourage OSHA to consider additional information in its database of accident investigation reports from federal OSHA and state agencies carrying out federally-approved OSHA programs.[3] A search for reports mentioning a press showed that worker fatalities have occurred less than once every two years in NAICS 3261, Plastics Product Manufacturing; injuries involving a press have generally decreased over time. Accident reports mentioning a press showed six events with one fatality in NAICS 325211, Plastics Material and Resin Manufacturing; one event each and no fatalities for both NAICS 325991 (Custom Compounding of Purchased Resins) and NAICS 333249 (Other Industrial Machinery Manufacturing), and no events for NAICS 333511 (Industrial Mold Manufacturing). We have heard from members who also believe that newer or upgraded presses meeting newer ANSI standard requirements have likely contributed to lower injury rates.

## II. Cavity-fed Plastics Molding Machinery Should Continue to be Excluded from Any OSHA Power Press Standards

[1] 86 FR 40651 (July 28, 2021)
[2] Information on published ANSI/PLASTICS standards and active projects is available here: https://www.plasticsindustry.org/standards.
[3] https://www.osha.gov/pls/imis/accidentsearch.html; last accessed October 25, 2021. As stated, "Summaries currently available include completed investigations from 1984 through 1 year earlier than today's date."

In PLASTICS' comments[4] on OSHA's June 4, 2007, advance notice of proposed rulemaking for power presses,[5] we noted that "OSHA has consistently recognized the fundamental distinctions between mechanical power presses and cavity-fed plastics molding machinery[6], regulating mechanical power presses under §1910.217 and cavity-fed plastics molding machinery under §1910.212." As OSHA seeks information about the potential inclusion or development of a separate standard for hydraulic and/or pneumatic presses, we continue to believe it is important, consistent with the principles underlying the ANSI B11 standards, that OSHA continue to regulate cavity-fed plastics molding machinery under § 1910.212 and exclude such machinery from the scope of any OSHA power press standards.

Since those comments were submitted:

- the definition of the term "press" in section 1910.211(d)(46) has not changed[7]
- the description in the OSHA Machine Guarding eTool of the design and operation of a mechanical power press has not changed[8]
- the definition of "hydraulic power press" in ANSI B11.2 now includes pneumatically powered machines but maintains the wording "transmit force… to cut, form, or assemble metal or other materials by means of tools or dies attached to or operated by [plungers or] slides."[9] This continues to support that, instead of being driven by mechanical power, the ram is driven by hydraulic (or pneumatic, as in the revised standard) power.

The above continues to support that a "power press" is a machine that transmits force—whether mechanically, hydraulically, or pneumatically—through a ram to cut, form or assemble materials.

Our comments made an important distinction in that cavity-fed plastic molding machines use a screw and/or injector to feed material into a closed mold, where the in-feed pressure and either elevated or reduced temperatures cause the plastic materials to form a molded product. We further explained that the distinction is not only based on how the product is formed, but also because there are fundamental differences in how the machines are designed and operated. Recognizing this, ANSI B11.2 continues to exclude "plastic injection molding machines" and "horizontal hydraulic extrusion presses" from its scope, as well as "plastic extrusion machines;" these categories are covered by other standards including in the ANSI/PLASTICS B151 series.

We also noted the role of a worker in the typical operation of various presses as described in the OSHA Machine Guarding eTool. In the time since our 2007 comments:

- the description of the typical operation of a full revolution clutch press has not changed except for the addition of "(TDC)" after top dead center,[10]

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[4] https://www.regulations.gov/comment/OSHA-2007-0003-0020
[5] 72 FR 30729
[6] This includes injection molding, blow molding, vacuum forming, rotational molding and continuous extrusion machines.
[7] This was also consistent with the definition of "mechanical power press" in the scope of ANSI B11.1 at the time, which remains the same in ANSI B11.1-2009(R2020).
[8] https://www.osha.gov/etools/machine-guarding/presses/mechanical-power
[9] Then ANSI B11.2-1995 (R2005); now ANSI B11.2-2013 (R2020), Safety Requirements for Hydraulic and Pneumatic Power Presses.
[10] https://www.osha.gov/etools/machine-guarding/presses/mechanical-power/mechanical-full-rev

- the description of the typical operation of a part revolution clutch press has not changed, in that typical operation requires "integral operator involvement,"[11]
- the description of the typical operation of a hydraulic power press has not changed in recognizing that "integral operator involvement is necessary,"[12]
- the description of the typical operation of a pneumatic power press has not changed in describing the operator involvement[13] and
- the descriptions of operator involvement for hydraulic and pneumatic presses both state the operator "is responsible for feeding or placing the stock on the bottom die, seeing that it is properly positioned, activating the press cycle with a pressure control switch, and removing the completed part."[14]

As the OSHA Machine Guarding eTool maintains, mechanical, hydraulic and pneumatic power presses are primarily operated manually with "integral operator involvement," whereas cavity-fed plastics molding machinery is typically operated in an automatic mode that eliminates exposure to the point of operation.

As in 2007, we want to ensure there is a clear understanding that the term "power press" was not intended to include, and does not include, cavity-fed plastic molding machines. We appreciate that OSHA has consistently recognized the material distinctions, and respectfully request that OSHA continue regulating mechanical power presses under § 1910.217 and cavity-fed plastics molding machinery under § 1910.212.

## III. Power Presses Standard and Presses Other than Mechanical Power Presses

If OSHA were to update the mechanical power press standard at § 1910.217, it would be appropriate to continue to use ANSI B11.1 as the basis, with the same scope and inclusion of explanatory material in the form of non-mandatory appendices.

If OSHA were to regulate hydraulic and pneumatic presses, it would be appropriate to cover them under a new standard that is based on ANSI B11.2-2013 (R2020) and that excludes all machines excluded from ANSI B11.2-2013 (R2020), including cavity-fed plastics molding machinery. As they are covered by other standards, exclusion of such machines would be supported by and consistent with the National Technology Transfer and Advancement Act,[15] which requires federal agencies to use technical standards developed or adopted by voluntary consensus standards bodies when possible, or otherwise submit justification as to why doing so would be inappropriate or inadequate. We would also like to reemphasize that ANSI/PLASTIC standards for cavity-fed plastic molding machines address their specific hazards, manufacture, and appropriate safety requirements for their care and use—beyond a general industry OSHA standard and what is generally within OSHA's jurisdiction.

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[11] https://www.osha.gov/etools/machine-guarding/presses/mechanical-power/mechanical-part-rev
[12] https://www.osha.gov/etools/machine-guarding/presses/hydraulic
[13] https://www.osha.gov/etools/machine-guarding/presses/pneumatic
[14] See footnotes 12 and 13.
[15] https://www.govinfo.gov/content/pkg/PLAW-104publ113/pdf/PLAW-104publ113.pdf

PLASTICS continues to believe it is important, consistent with the principles underlying the ANSI B11 standards, that OSHA continue to regulate cavity-fed plastics molding machinery under § 1910.212 and exclude that machinery from the scope of any OSHA power press standards. Thank you for the opportunity and for your consideration of these comments. Please contact me if we can provide further information.

Sincerely,

Marie Gargas
Senior Technical Director, Regulatory Affairs