PLASTICS
INDUSTRY ASSOCIATION

Below is a list of Requests for Interpretation received regarding ANSI/PLASTICS B151.1-2017 and the responses provided to each.

Clause	Comment/Request	Response
3.23	The paragraph a) can lead to misinterpretation, because it is only valid for machines with vertical clamping unit (only recognizable in the figure 1a). You should declare it also in the preluding text of paragraph a). Paragraph b) declares large machines (horiz. clamping unit) already with e1 or e2 > 1200mm – ***b) is similar to the Draft of ISO 20430!;*** **Request for modification – 3.23** a) Machines with vertical clamping unit and tie-bars where: "e1 or e2 > 1200mm (47 in) (see Figure 1a), and e3 maximum opening between the platens is greater than 1200mm (47in) (see Figure 1e)".	Thank you for your Request for Interpretation (RFI) on B151.1-2017. The RFI you submitted suggests revision to the standard, and not a traditional interpretation. At this time, there is not a plan to revise the standard. While we agree that 3.23 a) could be clarified, there is not support to revise the standard simply to clarify this definition. 3.23 a) is clearly meant to address vertical injection molding machines.
1.1, 3.40	Can this standard be applied to Vertical Clamp Injection Molding Machines that are using Wax as the molding material. Can the Wax material used for the mold be considered "Plastic material" in which this standard would apply to the machine. The machine in question (for reference) is a MPI Systems Model 55 Wax Vertical Clamp Injection Molding machine. Attached to the email is the machine specs.	Yes. The scope of the standard is for "Horizontal and Vertical Clamp Injection Molding Machines that process plastic materials and inject said material into a mold(s) held closed by the acting clamp." The standard defines "plastic" in clause 3.40 as "Any material processed by the IMM".
7.4.1	Do requirements in 7.4.1 regarding safety requirements for transparent guards require polycarbonate material guards to be tested to ANSI Z97.1?	ANSI B151.1 standard does not require any testing. ANSI B151.1 normatively references ANSI Z97.1, meaning that any requirements included in Z97.1 shall be met. If Z97.1 requires testing, it shall be tested by the manufacturer of the guard or the polycarbonate or tempered glass.

7.4.6	A stated in 7.4.6 (Interlocks) and 7.4.6.2, 7.4.6.3, we need two independent safeguarding devices for type II and type III interlocking. This requirement will imply in the case of using transponders or light curtains, we need 2 separate sensors/beams to monitor same guard/area.Not applicable rule when the manufacturers of these safeguarding devices are rating the safety monitoring/interlocking circuit using only one transponder/light curtain beam to meet PLr = e	While it could be easy to confuse the definition of Type II interlock with the ability to use alternative means as described in 7.4.6, “Alternatively, the safety related parts of the control systems shall be in accordance with the required performance levels (PLr) as specified in a documented risk assessment. If the principles of safety circuits specified below are applied, the calculation of the PL achieved is not required.”, the two work together in the standard to allow for the use of either performance levels or interlocks.
7.5.1.10	I think B151 made an adjustment regarding the movement of Ejectors with the operator gate open, meaning it’s now prohibited unless they have Motion No/Motion, but what if the ejectors are removed and air blow circuits are the “ejectors” on the B half of the platen…are these under the same regulation meaning they should be prohibited as well?	ANSI B151.1 safety standard identifies hazards and list the remedies appropriate to the risk. The 7.5.1.10 statement regards the mechanical movement of parts when operator’s gate is open. Air “blow off” circuits may create hazards for the operator and those should be determined based on the risk assessment. This standard does not list air ejection as a significant hazard and is left to user to ensure that operator wears PPE required by clause 8.10 when accessing mold area.
7.5.1.7	Is B151.1 – 2017 applicable specifically to having the requirement of a mechanical safety device (jam bar) in conjunction with electrical and hydraulic safety devices.	No. Clause 7.5.1.7 does not require that a mechanical safety device be used in conjunction with other devices. It requires a mechanical device be provided “such that when the mold area protection is opened or interrupted sufficiently to permit access to the modl area, the platen will be physically prevented from gravity-induced closure”.
7.5.4.1	Request for modification - to be added to 7.5.4.1: “The top-guard may be omitted, if the front and rear guard is high enough to reduce the splashing hazard from the TOP side – see table 1, Safety Distance, Reach-over Protective Structure”.	Thank you for your Request for Interpretation (RFI) on B151.1-2017. The RFI you submitted suggests revision to the standard, and not a traditional interpretation. At this time, there is not a plan to revise the standard. The need for a top guard is due to potential splattering of materials. The reach over tables (Table 1) are not meant to be used for splash distances and defining “high enough” would be difficult. Paragraph 4.5.1 in ISO 20430, states: “For horizontal injection molding machines, an opening in the nozzle guard underneath the nozzle, if needed for technical or process reasons, is permissible.” The proposed revision would conflict with the language in the draft international standard.
7.5.8.3	Would you apply the same guarding requirements that the standard applies to the part drop area, to the machine end, clamp end of the machine?	Based on the access requirements and risk assessment regarding the hazards in the area, appropriate guards shall be used.

7.5.9	Request for additional text to be added to 7.5.9 to allow for unrestrained hose assemblires	Thank you for your Request for Interpretation (RFI) on B151.1-2017. The RFI you submitted suggests revision to the standard, and not a traditional interpretation. At this time, there is not a plan to revise the standard. The standard allows for alternatives so long as they are based on documented risk assessment and provide equivalent level of safety. Additionally, there is an interpretation that the type of system can be considered a restraint. The standard as written does not exclude tear proof fittings as alternative. It is not necessary to revise this standard to permit what is being requested.
Annex G	A customer is requesting LOTO provisions for his air valves. Is this a new requirement? We of course typically say turn the air supply off and that's on the customer side.	LOTO provisions imply that all sources of energy must be Locked Out and prevented from re-energization when maintenance or servicing is being performed on the machinery. Consult additional ANSI standard for more details on LOTO requirements. The OSHA 29CFR 1910.147 may provide additional guidance. The machine supplier must identify all potential hazards associated with air valve activation or de-activation. Hazards related to high pressure melt injection may be a risk. Supplier must evaluate these and other risk in a Risk Assessment process and provide suitable protection for the operator.