

ASME BPE 2026 — Major Updates

	WHAT'S NEW IN 2026	LOOKING AHEAD TO 2028
 General Requirements (GR)	- Enhanced documentation requirements and guidance. - Biocompatibility testing updates aligned with global regulatory expectations. - Tank and vessel certification alignment and expanded terminology definitions.	- Further clarification of purpose, scope, and harmonized documentation language. - Expanded alignment with global standards and regulatory frameworks. - Additional terminology definitions and guidance to support consistency.
 Metallic Materials (MM)	- Global harmonization of superaustenitic stainless steels and related material grades. - Clarified sulfur controls and content limits. - New corrosion testing requirements and guidance.	- Duplex stainless steel harmonization and expanded material composition guidance. - Implementation of UBS PMI methods. - Nickel brazing filler metals guidance and standardization.
 Certification (CR)	- Added diaphragm valve certification requirements. - Expanded authorized certificate holder program. - Tank, vessel, and pressure vessel certification program expansion.	- Broader acceptance and implementation of certification programs globally. - Additional guidance for emerging equipment types. - Continued expansion of authorized programs and digital certificate initiatives.
 Dimensions & Tolerances (DT)	- Expanded instrument tee dimensions and configurations. - New gasket intrusion guidance for improved assembly reliability. - Ferrule flatness requirements.	- Additional dimensional standards for emerging connection types. - Continued harmonization with global dimensional standards. - Updated metallic hygienic union pressure ratings.
 Systems Design (SD)	- Mix-proof valve guidance and system considerations. - Centrifuge updates and performance considerations. - Inclusion of immersion washers and associated system design guidance.	- Guidance for aseptic filler systems and components. - Freeze/thaw vessel design and material considerations. - Modernization of autoclave and sterilization systems design guidance.
 Materials Joining (MJ)	- New WQPQ (Welding Procedure Qualification) example provided. - Discoloration guidance for welded components. - Clarified weld requirements and acceptance criteria.	- Polymeric vessel welding standards and best practices. - Guidance for higher alloy and dissimilar metal welding. - Expanded joining methods and emerging technology evaluations.
 Surface Finish (SF)	- Updated pits/porosity criteria and evaluation methods. - Passivation alignment with global industry practices. - Operator training guidance for surface finish awareness and control.	- Mechanical polishing appendix and best practices. - Enhanced electropolishing (EP) and passivation procedures. - Broader surface characterization and verification techniques.
 Single-Use (PM/SU/SJ/SC)	- USP-aligned biocompatibility updates and guidance. - Irradiation terminology and sterilization clarifications. - Tube welding criteria and integrity requirements.	- Single-use pumps and centrifuges guidance. - Tubing, connectors, and assemblies standardization. - Extractables and leachables (E&L) harmonization and guidance.
 Instrumentation (P/IS)	8 new instrumentation sections added. - Updated temperature measurement and sensor guidance. - Single-use instrument handling and integration requirements.	- Flush-mount fittings and hygienic instrument connections. - Standardized insertion lengths and installation guidance. - Expanded accuracy classes and performance criteria.
 Components for Multiuse (MC)	- New Figure AA-1.2.3-1: Multiuse valve selection guide. - Added requirements, figures, and guidance for split butterfly valves. - Updated gasket intrusion testing procedures and acceptance criteria.	- Expanded guidance for mix-proof valves, control valves, pressure regulators, and backpressure regulators. - Updated NMA-K diaphragm valve assessment and performance reporting content. - Phase 1 reorganization and content expansion to support broader MC scope.
 Pressure Technology Book (PTB)	1st edition EVER scheduled for release (this December)! - Selection guides for conductivity, level, flow instruments. - The "Art of CIP" and the "Art of SIP".	- Selection guides for analytical devices. - Comprehensive SIP and CIP studies and data-backed conclusions. - Surface finish guidance (MP/EP).

TOP 3 REASONS TO GET INVOLVED WITH ASME BPE

1

Influence industry standards that directly impact quality, compliance, and operational efficiency.



2

Access world-class networking and collaboration opportunities with global biopharma subject matter experts.



3

Stay ahead of emerging technologies, regulatory trends, and best practices shaping the future of bioprocessing.





Interested in contributing to the future of ASME BPE or learning more about the 2026 updates?

Contact either of us — we'd love to connect!

Scan the QR code or connect on LinkedIn for collaboration, committee involvement, and technical discussions.

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SCAN TO CONNECT

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Safety & Data Protection

- OpenAI ChatGPT (GPT-5.5) was accessed via the ChatGPT web platform on May 27, 2026 for editorial refinement, formatting, summarization, and presentation organization support.
- "Improve the model for everyone" was disabled during use, preventing submitted content from being used for OpenAI model training.
- All AI-assisted content underwent human-in-the-loop (HITL) review, validation, editing, and approval by Andrew Lamore in accordance with ASME AI policy requirements.