

2019

Annual Report



3-A Sanitary Standards, Inc.

Promoting Food Safety Through Hygienic Design





It is the mission of 3-A Sanitary Standards, Inc. to enhance product safety for consumers of food, beverages, and pharmaceutical products through the development and use of 3-A Sanitary Standards and 3-A Accepted Practices.

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Coming of Age

3-A SSI achieved a major milestone this year, completing 15 years of building new and expanded industry services. The scope of 3-A SSI's work has evolved with the times and many achievements point to major progress on some larger mission objectives envisioned by the founders.

The 3-A Symbol authorization program changed substantially in 2003 with the requirement for a Third Party Verification (TPV) inspection report. Over 15 years of experience with the TPV requirement, we see steady growth in the 3-A Symbol authorization program among fabricators from all locations, driven by the goal to enhance regulatory acceptance. The independent inspection program relies on evaluations by independent Certified Conformance Evaluators. Among the 16 CCEs, the average length of industry experience is nearly 33 years.

From the first standards for valves and fittings of decades ago, 3-A SSI today maintains a large inventory of modern 3-A Sanitary Standards and Accepted Practices for virtually all major types of processing equipment. 3-A SSI is completing a comprehensive conversion of all documents to a new format that will streamline the management and efficiency of the entire program. This experience has enabled 3-A SSI to better serve industry in a time of rapid industrial and technological advancement.

3-A SSI continues to expand and improve its Knowledge Resources to improve the awareness and understanding of hygienic equipment design to all stakeholders. The e-learning modules, white papers and standards are gaining new audiences wherever the internet reaches.

When it comes to responsive standards development and advancing conformance activities that meet the needs of U.S. competitiveness and innovation, 3-A SSI provides a sound and trusted program to enhance food safety. This program provides an important bridge between public health goals and private sector solutions. Our program continues to welcome and engage new constituents and it bolsters 3-A SSI's important role in the industry.

None of this progress would be possible without the vision and support of the leadership and the participation of expert volunteers from all walks and interests. We are excited about the future role of 3-A SSI in Promoting Food Safety Through Hygienic Design.



3-A Symbol Bolsters Hygienic Equipment Demand

Growing demand for modern hygienic equipment across all segments of the food processing industry enhanced the demand for the 3-A Symbol authorization program in 2018. Data on the sale of 3-A Sanitary Standards and 3-A Accepted Practices showed growing interest in hygienic design criteria for human and non-human food processing operations around the world. This interest reflected in the 11th straight year of significant organic growth in the 3-A Symbol authorization program.

Recognition and demand for '3-A' equipment is growing as processors must now maintain written plans to comply with the new federal rules on Preventive Controls under the Food Safety Modernization Act. The Preventive Controls rules require food processing facilities to establish and implement a written food safety plan that includes an analysis of hazards and risk-based preventive controls. The voluntary 3-A Symbol authorization program helps regulatory professionals, processors, and fabricators identify equipment that conforms to the criteria of 3-A Sanitary Standards.

The integrity of the 3-A Symbol authorization program rests upon the Third Party Verification (TPV) inspection requirement. The TPV inspection requirement applies to all equipment built to 3-A Sanitary Standards that is licensed to display the 3-A Symbol. A licensee must engage a credentialed inspection professional, known as a Certified Conformance Evaluator (CCE), to conduct an on-site evaluation of finished equipment and other product attributes to affirm the equipment conforms to provisions of the applicable 3-A Sanitary Standard. Any deficiencies discovered in an inspection must be corrected before the equipment can be authorized to display the 3-A Symbol. Equipment manufacturers that do not comply with the TPV inspection requirement risk losing the authorization to use the 3-A Symbol. A complete on-site TPV inspection is required upon application and once

every five years thereafter, or any time there is a significant design change or non-conformance.

The 3-A Symbol is a registered mark used since 1956 to identify equipment that meets 3-A Sanitary Standards for design and fabrication. Voluntary use of the 3-A Symbol on dairy and food equipment conveys assurance that equipment meets sanitary standards, provides accepted criteria to equipment manufacturers for sanitary design, and establishes guidelines for uniform evaluation and compliance by sanitarians.

Fabricators from across the U.S. and 24 other countries maintain a 3-A Symbol authorization to verify the equipment conforms to 3-A Sanitary Standards. Other countries include:

Belgium	Israel	Republic of Korea
Canada	Italy	Spain
China	Japan	Sweden
Denmark	Malta	Switzerland
Finland	Mexico	Taiwan
France	Netherlands	Thailand
Germany	New Zealand	Turkey
India	Poland	United Kingdom

The 3-A SSI website features on-line access to complete certificate information for all 3-A Symbol licensees. This public information offers detailed information on models and equipment covered under a company's license to assist regulatory sanitarians, processors, equipment fabricators, and other interested parties. The information is searchable by the unique authorization number, equipment type/standard or company name. A copy of the actual authorization certificate may also be generated and printed from the online database. The certificate search database is the most frequently visited area of the 3-A SSI web resources.

The TPV requirement, combined with easy access to licensee information, has enhanced the level of integrity

and recognition of the 3-A Symbol for those concerned with the safety of consumers of food, beverages and pharmaceutical products, fulfilling one of the primary mission objectives of 3-A SSI.

3-A SSI also recorded significant growth this year in another voluntary certificate program for Replacement Parts and System Components. The Replacement Parts and System Component Qualification Certificate (RPSCQC) Program is open to manufacturers of replacement parts or system components that are not otherwise eligible for 3-A Symbol authorization. The RPSCQC is beneficial to certificate holders and customers because it affirms that such parts or system components are compatible with the design criteria found in the relevant 3-A Sanitary Standard(s). The RPSCQC is often used in sales or marketing information.

3-A SSI Acts to Protect the '3-A' Brand

The integrity of the 3-A Symbol continues to face challenges from unlicensed suppliers and 3-A SSI initiated several major actions this year to defend the proper use of the 3-A Symbol and related claims.

The 3-A Symbol is registered by the U.S. Patent and Trademark Office as the legal property of 3-A SSI. 3-A SSI licenses use of the 3-A Symbol to fabricators on a voluntary basis to identify equipment that meets 3-A Sanitary Standards for design and fabrication. Use of the 3-A Symbol by dairy and food equipment fabricators helps assure processors that equipment meets sanitary standards, provides accepted criteria to equipment manufacturers for sanitary design, and establishes guidelines for uniform evaluation and compliance by sanitarians in the U.S.

3-A SSI witnessed the growing unauthorized use of the trademarked 3-A Symbol by numerous companies in China in recent years. These companies were posted on the 3-A SSI web site under a special 'Buyer Beware' link and 3-A SSI circulated the announcement widely to regulatory authorities, trade press, licensees and others.

3-A SSI reached out directly to the infringing companies and requested their cooperation to stop the infringements. 3-A SSI also retained special counsel in the U.S. and in China to take actions in two major areas to counter these infringements. First, 3-A SSI filed applications to register the 3-A Symbol in China with the China Trademark Office. Formal registration in China will enhance the ability of 3-A SSI to defend its registered mark. Final action on the applications is expected this year.

3-A SSI also consulted closely with U.S. trade authorities on effective ways to stop the imports of unlicensed products into the U.S. 3-A SSI continues to pursue measures under U.S. law to protect the integrity of the 3-A Symbol for customers in the U.S. and anywhere authentic equipment is specified.

3-A SSI applications are pending in the European Union Intellectual Property Office (EUIPO) to register the 3-A Symbol as a certification mark in several classes of equipment. 3-A SSI also applied to register '3A' as a "standard character" certification mark. A "standard character" mark is used to register words, letters, numbers or any combination thereof, but does not lay claim to any particular font style, size, or design element. A "standard character" mark for '3A' provides a broader scope of protection and helps insure against any future changes in logo design.

3-A SSI Expands Industry Engagement

3-A SSI reached out to become a trusted resource for hygienic design to a wider range of key audiences by contributing articles to leading industry publications and other important outreach. This outreach helped spread important knowledge about the critical role of hygienic equipment design and the many benefits of 3-A Sanitary Standards and 3-A Accepted Practices in a wide range of food processing applications.

3-A Sanitary Design Connections

The quarterly e-newsletter *3-A Sanitary Design Connections*, continues to serve a growing, diverse and broad



audience of readers from across the U.S. and elsewhere. *Connections* brings the important role of 3-A SSI in the hygienic design of equipment used in the processing of food or other products into perspective for equipment fabricators, food processors, regulatory sanitarians, academic leaders and students.

Each issue of *Connections* includes a lead or feature article on a prominent issue in hygienic equipment design or the role of 3-A Sanitary Standards, 'News of Interest' with relevant news about hygienic design from other sources, and 'What's New In 3-A SSI'.

Leading Industry Magazines

3-A SSI supports the editorial mission of ***Dairy Foods*** magazine, reaching 20,550 dairy processors across the \$110 billion dairy industry. 3-A SSI authored four columns this year, including *Training: Equipment Operations and Maintenance*, *Integrating Processing & Packaging: Equipment Specifications and Purchasing*, *FSMA Compliance: Preventive Controls and Hygienic Equipment Design*, and *Counterfeit Hygienic Equipment: Buyer Beware*.

3-A SSI continued a series of three half-page display advertisements in ***Dairy Foods*** and ***Food Engineering*** magazines this year (circulation 28,000+). These ads promote recognition of 3-A SSI's integral role in Promoting Food Safety Through Hygienic Design.

3-A SSI participated or presented in several trade shows and meetings during the year, including ANUGA (Cologne, Germany), Membrane Technology Forum (Minneapolis, MN), International Association for Food Protection (Salt Lake City, UT), and Pet Food Institute First Scientific Symposium (Washington, DC).

3-A SSI also received attention in other magazines/periodicals including *Food Industry Executive News*, *Cheese Reporter*, *Food Engineering* and *Food Processing*.

3-A SSI Knowledge Resources Gain Viewers

3-A Sanitary Standards, Inc.
Free Knowledge Resources
Visit the Knowledge Center at www.3-a.org

- Expert Resources on Hygienic Equipment Design available 24/7
- For Educators, Students, Industry Professionals, Trainers
- Select from Authoritative Papers, Presentations and more
- Learn the key role of 3-A SSI Criteria for Regulatory Compliance
- Contact us for information on customized on-site training

E-learning Modules
Printable Certificate of Completion for each Module

- Overview of Principles of Hygienic Design
- Hygienic Equipment Design: Basics, Advanced
- Hygienic Facility Design
- Cleaning & Sanitizing
- Quality Control and Regulations

"Nice photos and bullet points. Good comprehensive details provided."

"Excellent info...plan to use this for our plant start!"

"Super training tool!"

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3-A Sanitary Standards, Inc.
Promoting Food Safety Through Hygienic Design
Your Expert Resource for Students, Members and Clients

Get Acquainted With a Leader in Hygienic Equipment Design
Your operations play an integral role in the dramatic growth of the food beverage or pharmaceutical industries. Hygienic equipment design is no longer an option, it's essential for the processing and handling equipment of all types of food and beverage manufacturing.

In this new world of Food Safety Inspection Act (FSMA), food processors must maintain written plans for monitoring, verification and corrective action in a range of areas, including supplier management, allergen control, process control, GMP program oversight, product traceability, recall plans and operational compliance at food defense. Various audit programs under the Global Food Safety Initiative (GFSI) also require integrity of hygienic equipment design.

Where can you find expert knowledge resources and education to promote the importance of hygienic equipment design in meeting public health? We invite you to explore and share the wide range of FREE resources and programs of 3-A SSI.

Why 3-A SSI?

- We are a non-profit organization based in the U.S. with a long history of leading the collaboration of experts from around the world, including equipment design professionals, processors and regulatory authorities.
- 3-A SSI leads the development of consensus criteria for hygienic design of equipment and accepted practices for processing systems which are specified and used in food processing operations across the U.S. and worldwide.
- 3-A SSI hygienic design criteria provide tested, custom specifications for equipment and systems across multiple processing operations.

How Can We Help You?
Our mission is education. Here are just a few of the benefits your Students, Members, or Clients will receive from using our Knowledge Resources and programs:

- Expand knowledge of innovation in hygienic equipment design and processing applications.
- Learn from leading experts from around the world, including equipment design professionals, processors, and regulatory professionals from both the federal and state levels.
- Gain new knowledge resources to benefit your organization and advance public health.
- Save time and money on equipment, installation, and projects in the competitive global marketplace.
- Add value to professional skills and industry recognition and career advancement.

Read and share the attached information on 3-A SSI Free Knowledge Resources or go to www.3-a.org.

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The number of visitors taking advantage of 3-A SSI's new *Basics* e-learning modules and the first new *Advanced* module increased in 2018. The series of e-learning tools was designed to bring the world of hygienic equipment design to audiences around the world at any time of the day or night.

In 2018, 3-A SSI expanded its promotion of the Knowledge Resources to U.S. academic contacts in food science and dairy science, as well as major food-related and equipment organizations.

The first four Basics e-learning modules present a comprehensive introduction to the principles of hygienic design. These modules include:

- 1.0 Overview of Principles of Hygienic Design & Foundation Elements**
- 2.0 The Basics of Hygienic Equipment Design**
- 3.0 Basics of Hygienic Facility Design & Environmental Controls**
- 4.0 Basics of Cleaning and Sanitizing**

Learning objectives are clearly listed at the beginning of each module and interactive assessment tools are in-



cluded to support the learning experience. Each module is narrated and a script is provided for convenience. All materials are accompanied by straightforward illustrations including photos from the field, animations, as well as informative diagrams. Each module is about one hour in length and all viewers are encouraged to complete Module 1.0 before moving forward to deepen their knowledge with the other modules.

Introduced early last year, the first new *Advanced* module, **2.1 Advanced Hygienic Equipment Design: Materials & Surface Finishes**, offers equipment designers and specifiers with advanced hygienic design knowledge on the materials of construction and surface treatments. The content emphasizes hygienic materials selection and the metals and non-metals commonly used for product contact and non-product contact surfaces. The Module also covers surface finishes, as well as the selection process for surface treatment methods, to optimize corrosion resistance, wear, durability, toxicity, and hygienic safety.

Much of the content for the modules is derived from the comprehensive *ANSI/3-A 00-01-2018, 3-A Sanitary Standards for General Requirements*, a compendium of baseline sanitary (hygienic) criteria for design, materials, and fabrication/installation of equipment and systems in various 3-A Sanitary Standards and 3-A Accepted Practices. The *General Requirements* standard is intended for use on a voluntary basis by equipment and machinery fabricators, processors, and regulatory agencies, and by other Standard Developer Organizations (SDOs) to help assure that adequate public health protections exist for the equipment or systems used in the production of food products. The modules also reference criteria from the European Hygienic Engineering & Design Group (EHEDG) and other organizations.

Tracking data showed an increase in the number of users and the global reach for the e-learning modules this year. The number of users increased by 29% to 2,432 from more than 40 countries around the world from the Americas, Europe, Asia, and Africa. Most of the viewers reported some previous knowledge of food processing, but about one-third were entry level. A large majority of comments from users expressed appreciation for the valuable content and easy navigation of the modules and 72% of the users reported the modules were very helpful. Users also reported the modules are being incorporated into ongoing education/training programs.

Additional modules are in development and more advanced sections are planned for several of the modules.

3-A SSI Hosts Record Number of Student Award Recipients

3-A SSI recently welcomed the largest number of annual Student Travel Award recipients ever to the 3-A SSI education program, **Exceeding Customer Expectations Through Hygienic Design** and related events on May 14–15, 2018 at the Hilton Minneapolis/St. Paul Airport-Mall of America in Bloomington, MN. The program was created to help motivated, career-oriented students participate in the annual education program of 3-A SSI and gain comprehensive knowledge about hygienic design for food processing equipment and systems.

Recipients of the 2018 awards included:

Ariel Garsow	The Ohio State University
Luis Jimenez	Texas Tech University
Paola Melisa	Texas Tech University
Moncada-Munoz	
Sara Margarita	Texas Tech University
Munoz-Mendoza	
Gabriella Paz	Louisiana State University
Anna Rose B. Pilapil	University of Nebraska—Lincoln
Samuel Reichler	Cornell University
Minqian Wang	Rutgers University
Samantha Gartley	University of Delaware
Walaa Hussein	The Ohio State University
Sarah Murphy	Cornell University

The 3-A SSI Travel Award program attracted the highest number of applicants ever this year and an extremely high level of professional achievement. According to 3-A SSI Chair David Kedzierski, “We have expanded our role in hygienic design education because it is a fundamental element of assuring food safety. The 3-A SSI program gives these future food industry professionals a great opportunity to gain in-depth knowledge about hygienic equipment design in the real world and network with a truly diverse group of industry leaders.”

Recipients of the 2018 awards demonstrated interest and commitment to food safety and quality as a student enrolled full-time in a food technology, food science, dairy science or other closely related program (undergraduate or graduate level) at a college or university in the U.S. or Canada. Award recipients were selected on the basis of a personal essay, official transcripts and a letter of recommendation from a faculty member or department head.

3-A SSI Volunteer Recognition

3-A SSI announced the recipients of its 2018 Volunteer Service Awards at the 3-A SSI Annual Meeting in Bloomington, MN.

The 3-A SSI Volunteer Service Awards recognize the extraordinary dedication and commitment of individuals who contribute to the development of voluntary standards and the mission of 3-A SSI. Nominations for the awards are made by fellow volunteers from the three stakeholder groups in 3-A SSI—regulatory sanitarians, fabricators, and processors—and others.

3-A SSI Chair David Kedzierski (Agri-Mark, Inc./Cabot Creamery) announced the following award recipients for 2018:

- **Jean DeLisi (Tetra Pak)** received the *Leadership Service Award for outstanding service to the voluntary standards development of 3-A SSI and significant contributions to the mission of 3-A SSI.*
- **Paul Bokelmann (Advanced Process Technologies)** received the *'Richard K. Smith' Advancement Award for outstanding accomplishments on behalf of 3-A SSI.*
- **Gabe Miller (Pi-FS, LLC) and Jerry Yang (Hangzhou Compo Testing and Technology Service Co., Ltd.)** received the *Chairman's Award for exceptional service to 3-A SSI.*

3-A SSI Education Grows and Diversifies

3-A SSI continued to fulfill its education mission with the largest and most widely representative group of attendees for its yearly education program in 2018 at the Hilton Minneapolis/St. Paul Airport-Mall of America in Bloomington, MN. The education programs on May 14–15 were designed to maximize high-value learning and networking, followed by volunteer participation in a full schedule of Working Group meetings.

3-A SSI welcomed 280 participants from all segments of the industry, including processors, fabricators and regulatory professionals, from across the U.S. and nine other countries around the world.

The 2018 program opened on May 14 with an expanded introductory workshop, *3-A SSI and the Basics of Hygienic Design*. This full-day program was designed especially for industry newcomers and early career professionals, or anyone wishing to review the fundamentals. Coordinated by Greg Marconnet (Mead & Hunt) and Larry Hanson (CIP Concepts, LLC), the program began with a quick overview

of 3-A SSI, then moved to in-depth presentations led by four highly experienced Certified Conformance Evaluators. Scott Hoffmeyer (Spraying Systems Co.) addressed the basics of hygienic design and where 3-A Sanitary Standards and 3-A Accepted Practices fit in a holistic approach to hygienic design. Dennis Glick (USDA, AMS/Dairy Programs) explained how 3-A Sanitary Standards and the 3-A Symbol support the objectives of regulatory programs in USDA and FDA. Gabe Miller (Pi-FS, LLC) explored the requirements for materials—metals and non-metals—referenced in 3-A SSI design criteria, including the composition and surfaces/finishes. Bryan Downer (Sani-Matic) presented a comprehensive review of fabrication elements in hygienic design, including joints, drainage, dead legs, radii, seals, bearings and shafts, and more. Greg Marconnet and Larry Hanson brought a wealth of experience to the topics of Facility Design and Environmental Controls, Cleaning and Sanitizing, and Operations and Quality.

The second full day of education on May 15 concentrated on the theme 'Exceeding Customer Expectations Through Hygienic Design'. The full-day program featured leading experts on the importance of hygienic design from multiple perspectives, including facility design, risk management, hazard control, materials of equipment fabrication, and much more. Topics and speakers for the program included:

- **Bacterial Fingerprinting: Tracking a Food-borne Illness**—Drew Falkenstein, Marler-Clark, The Food Safety Law Firm
- **Microbiology: Validating Hygienic Design**—Ben Warren, Land O'Lakes
- **Technologies and Methodologies Used in CIP Research**—Ariel Garsov, Ohio State University
- **Sanitary Design for Spray Drying Equipment**—Steve Barduson, Tetra Pak Processing Equipment Inc.
- **Assuring Steel Surface Quality**—Geir Moe, the Nickel Institute
- **Protecting Hygienic Design: Service/Maintenance**—Jim McCormick, SANI-PUMP, Inc.
- **Technology Considerations for Safe Food Processing**—Douglas Beloskur, Buhler Aeroglide
- **Predictive Maintenance and Reliability**—Shawn Breeden, Pentair Process Technologies

Presentations from previous yearly education programs are archived and available at no charge on the 3-A SSI web site.



3-A SSI Certified Conformance Evaluators Reach New Milestone

The 3-A Symbol authorization program changed substantially in 2003 with the requirement for a Third Party Verification (TPV) inspection report and the Certified Conformance Evaluators (CCEs) accredited by 3-A SSI have helped establish a new level of recognition and integrity for the 3-A Symbol authorization program. Now entering the 16th year of service, the CCEs are the independent equipment professionals credentialed by 3-A SSI to perform the TPV inspections required for a 3-A Symbol authorization and other voluntary 3-A SSI certificate programs.

The first class of accredited CCEs was introduced in July 2003. A total of 29 professionals met the eligibility requirements, passed the CCE exam, and completed orientation training. A total of 16 CCEs are active today, including two based in Europe and one in Mexico. Among the 16 CCEs, the average length of industry experience is 32.9 years.

In 2018, 3-A SSI worked to support the knowledge and skills of the CCEs in their important inspection work through a period of substantial worldwide demand for new and renewal TPV inspections. The TPV Coordinating Committee, consisting of regulatory sanitarians, fabricator and processor representatives, coordinated a special training seminar for CCEs. In addition, the Committee conducted outreach throughout the year to refine and improve TPV inspection program procedures and to exchange information on the application of 3-A Sanitary Standards and other hygienic design issues relating to the performance of TPV inspections. The Committee also published several bulletins to provide guidance on consistent and uniform CCE inspection services. The new bulletins are available to all visitors on the 3-A SSI website.

The integrity and acceptance of the 3-A Symbol and the other voluntary certificates of 3-A SSI rests largely upon

the role of its CCEs. 3-A SSI strives for consistency and uniformity in the assessments of equipment by the CCEs.

3-A SSI Modernizes Inventory of Standards and Accepted Practices

3-A SSI now enters year five in the comprehensive program to revise all 3-A Sanitary Standards and 3-A Accepted Practices to the “B Level” format and style. All 3-A SSI Working Groups are focused on updating individual equipment standards and 3-A Accepted Practices to reflect hygienic design requirements reflected in *ANSI/3-A 00-01-2018, 3-A Sanitary Standard for General Requirements (GR)* as a normative reference. So far, the following (16) Standards and (1) Accepted Practice has been revised and published:

- *3-A Sanitary Standard for General Requirements, ANSI/3-A 00-01-2018 (effective 6/2017)*
- *3-A Sanitary Standard for Stainless Steel Automotive Transportation Tanks for Bulk Delivery and Farm Pickup Service, 05-16 (effective 10/2016)*
- *3-A Sanitary Standard for Formers, Fillers, and Sealers of Containers for Fluid Products, 17-12 (effective 3/2018)*
- *3-A Sanitary Standard for Flow Meters, 28-06 (effective 2/2019)*
- *3-A Sanitary Standard for Farm Raw Milk Storage Tanks, 30-02 (effective 7/2018)*
- *3-A Sanitary Standard for Scraped Surface Heat Exchangers, 31-07 (effective 1/2018)*
- *3-A Sanitary Standard for Metal Tubing, 33-03 (effective 4/2016)*
- *3-A Sanitary Standard for Open Cheese Vats and Tables, 38-01 (effective 3/2018)*

- *3-A Sanitary Standard for In-Line Strainers, 42-02 (effective 1/2017)*
- *3-A Sanitary Standard for Crossflow Membrane Modules, 45-03 (effective 12/2016)*
- *3-A Sanitary Standard for Vacuum Breakers and Check Valves, 58-03 (effective 3/2018)*
- *3-A Sanitary Standard for Steam Injection Heaters, 61-01 (effective 11/2018)*
- *3-A Sanitary Standard for Sensors and Sensor Fittings and Connections, 74-07 (effective 3/2019)*
- *3-A Sanitary Standard for Spray Cleaning Devices Intended to Remain in Place, 78-03 (effective 8/2018)*
- *3-A Sanitary Standard for Auger-Type Feeders, 81-01 (effective 8/2018)*
- *3-A Sanitary Standard for Robot-based Automation Systems, 103-00 (effective 10/2016)*
- *3-A Accepted Practice for Sanitary Construction, Installation, and Cleaning of Membrane Processing Systems, 610-03 (effective 3/2018)*

3-A SSI has conducted nearly two dozen webinar sessions to review and discuss a new proposed Unitized Automated Milking Installation Standard and draft revision proposals for “B Level” Standards and Accepted Practices.

A large number of other conversion projects are in progress:

- *WG 1 (Vessels) revision Project B-32-03-A for 3-A Sanitary Standard for Uninsulated Tanks*
- *WG 2 (Fillers) revision Project B-17-12-A for joint 3-A Sanitary Standard for Formers, Fillers, and Sealers of Containers for Fluid Products and 3-A Sanitary Standard for Packaging of Viscous Products*

- *WG3 (Valves & Fittings) revision Project B-63-03-A for 3-A Sanitary Standard for Sanitary Fittings*
- *WG 4 (Pumps & Mixers) new Project B-77-00-B for 3-A Sanitary Standards for Single Mechanical Seals*
- *WG 5 (Heat Exchangers) revision Project B-11-09-A for 3-A Sanitary Standard for Plate-Type Heat Exchangers*
- *WG 6 (Conveyors & Feeders) revision Project B-88-00-A for 3-A Sanitary Standard for Equipment Feet and Supports*
- *WG 7 (Instruments) revision Project B-46-03-A for 3-A Sanitary Standard for Refractometers and Energy-Absorbing Optical Sensors*
- *WG 8 (Concentrating Equipment) revision Project B-26-05-A for 3-A Sanitary Standard for Sifters for Dry Products*
- *WG 9 (Farm & Raw Milk) new Project B-102-00-A for 3-A Sanitary Standard for Automated Milking Installations*
- *WG 10 (Cheese & Butter Equipment) revision Project B-83-00-A for 3-A Sanitary Standard for Enclosed Cheese Vats and Tables*
- *WG 11 (Process & Cleaning Systems) revision Project B-605-04-A for 3-A Accepted Practice for Permanently Installed Product and Solution Pipelines and Cleaning Systems*
- *WG 12 (Plant Support Systems) revision Project B-604-05-A for 3-A Accepted Practice for Supplying Air Under Pressure in Contact with Product or Product Contact Surfaces*

The strength of 3-A SSI rests upon the unwavering commitment of its subject experts from across the spectrum of fabricators, processor and regulatory professionals to hygienic equipment design.







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