

Pressure Points

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HSB, a Munich Re company, is a technology-driven company built on a foundation of specialty insurance, engineering, and technology, all working together to drive innovation in a modern world.

Southern Company and HSB sign ASME Section III N-3 Data Report

Author: Mike Lockwood, VP Nuclear Code Services

It has been more than three decades since nuclear units have been built in the United States. Plant Vogtle units 1-4 will produce clean nuclear power that is safe, reliable, and an affordable source of electricity. Plant Vogtle will be able to power 1 million Georgia homes and businesses and promote economic growth with over 800 permanent jobs once the units begin operation.



Photo credit: Georgia Power

Georgia Power's Plant Vogtle units 3 and 4 will be the first new nuclear units built in the United States in more than three decades, using the Westinghouse AP1000 advanced pressurized water reactor technology.

HSB recognizes and congratulates Southern Company, Georgia Power, Westinghouse, Bechtel, Stone & Webster, PCI, and CBI on this significant milestone.

Signing of the ASME Section III N-3 data report signifies the completion of all ASME Section III Division 1 fabrication and construction of Plant Vogtle unit 3. HSB Global Inspection and Engineering Services inspectors have independently verified that Plant Vogtle unit 3 has been properly built to the ASME Section III Division 1 Code.



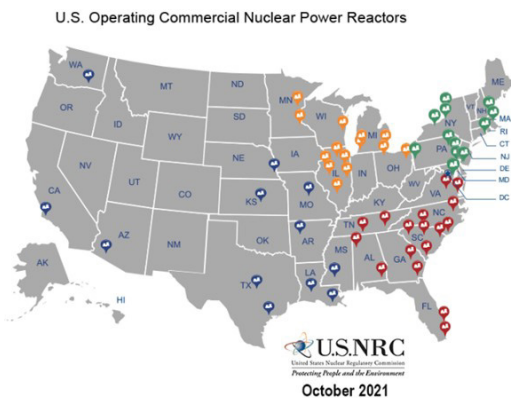
HSB Authorized Nuclear Inspector, Marten Cardini, signing ASME Section III Division 1 N-3 Data Report for Plant Vogtle unit 3

Both the signing of the ASME N-3 Data Report and the previously issued Nuclear Regulatory Commission 103(g) letter, stating Southern Nuclear, a subsidiary of Southern Company, has completed all of the inspections, tests, and analyses needed to operate Plant Vogtle's unit 3 reactor, are pivotal achievements for the nuclear industry. Plant Vogtle is the nation's lone baseload nuclear construction project, and its two new reactors are the first to be built and approved under a federal regulatory approval process known as Part 52, which was put in place in 1989.

Southern Georgia Power, a subsidiary of Southern Company, advocated building nuclear reactors for at least a decade to help diversify its fleet and to begin reducing the use of carbon-emitting coal. These reactors will be a significant source of carbon-free energy and will further help the United States achieve President Biden's goal to reach 100% carbon pollution-free electricity by 2035. The Biden administration is focused on the existential threat climate change poses but responding to this threat offers an opportunity to support good-paying, union jobs, strengthen America's working communities, protect public health, and advance environmental justice.

Once the Plant Vogtle expansion is finalized, Southern believes the plant's four nuclear units may generate enough carbon-free reliable electricity to power approximately 1 million homes and could potentially prevent 10 million metric tons of carbon dioxide emissions annually.

Plant Vogtle unit 3 began construction in 2013 and HSB is proud to be part of the team building carbon-free nuclear energy. HSB would like to recognize its inspectors and supervisory staff who have supported the Plant Vogtle project with their reliability, expertise, and professionalism.



About the author

Mike Lockwood
VP Nuclear Code Services
michael_lockwood@hsb.com

Mike Lockwood has been the Vice President Code Services of HSB since 2009. Prior to joining HSB in 1996, Mike served in the U.S. Navy for 8 years as a nuclear plant operator. Mike earned an MBA from the Kelley School of Business at Indiana University and a graduate of Thomas Edison State University with a BSAST/ Nuclear Technology.

Mike has had a wide variety of roles of increasing responsibility in HSB nuclear business. Key roles included managing U.S. Codes Services nuclear business, Authorized Nuclear Supervisor responsible for ASME Boiler and Pressure Vessel Section III and XI inspection activities. Authorized Nuclear Inservice Inspector assigned to an commercial operating nuclear plant, and Authorized Nuclear Inspector support ASME Boiler and Pressure Vessel Code construction/manufacture at various facilities.

Additionally, he is a member of ASME Boiler and Pressure Vessel

- Board for Conformity Assessments, BCA
- Board for Nuclear Codes and Standards, BNCS
- Committee for Nuclear Certification, CNC
- BPV Committee on Construction of Nuclear Facility Components (III)

Ask the engineer

Author: Alex Garbolevsky, P.E., Senior Engineer

Question: Does Section I or VIII address the forming method of threads for either bolts or fittings? Apparently, there are three forming methods which include rolling, forging, and cutting, and I do not know if all three methods are accepted for ASME Code construction.

Response: Section I (Table A-360) and Section VIII Division 1 (Table U-3) do not address the method of producing threads. Both Section I and Section VIII reference ASME B1.1 and ASME B1.20.1 and describe thread profile and acceptable tolerances.

Nevertheless, Section II Part A includes material specifications that address threads with reference to ASME B1.1 Unified Screw Threads-series. For example, Section 4.4 of ASTM A307 Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 PSI Tensile Strength and Section 4.2 of ASTM A325 Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength both state that threads shall be rolled or cut. Furthermore, Section 4.6 of ASTM A563 Standard Specification for Carbon and Alloy Steel Nuts states threads shall be formed by tapping or machining.

We suggest if any of the products comply with the material specifications, such as listed above, the listed methods shall be used. We recommend using the forming method referenced in the applicable material specification.

About the author

Alex Garbolevsky
P.E., Senior Engineer
alex_garbolevsky@hsb.com

Alex joined HSB in 1979, after serving in the US Navy as a Main Propulsion Assistant. He holds a B.A. in Chemistry from the College of the Holy Cross, and an M.S. in Engineering Science from the Rensselaer Polytechnic Institute. Prior to his assignment to Codes and Standards in 2000, he spent 13 years in Germany and represented HSB in more than 25 countries, serving in positions ranging from Authorized Inspector to Technical Managing Director of our subsidiary – HSB International GmbH. Alex concentrates in providing support for ASME Section V and IX, as well as for the European Union Pressure Equipment Directive “PED” (2014/68/EU), and ASME Section III. He is actively involved in inspector training within the company as well with external technical training seminars including ASME’s “Section I – Power Boilers” (PD-665).

Alex holds National Board “AI” and “IS” Commissions with “B”, “I”, “N”, “NS,” and “R” endorsements. From 1993 to 2002, he served as Chairman of ISO/TC-11 Technical Committee for Boilers and Pressure Vessels and currently is a member of ASME’s Standards Committee on Nondestructive Examination, Subgroup on International Materials Specifications, Subgroup on Volumetric Methods, Working Group Radiography, and Subgroup on Brazing. He is a Registered Professional Engineer (Mechanical) in the Commonwealth of Massachusetts.

Take note!

HSB Global Inspection and Engineering Services successfully renews Department of Transportation Design Approval Authority Certification

Author: Frank Pesek, Transportation Commercial Manager (DOT/TC/CDG/TPED)

In case you missed it... HSB Global Inspection and Engineering Services once again successfully renewed its Design Approval Authority (DAA) Certification with the U.S. Department of Transportation (DOT) — an accreditation held since the early 2000s. So, what is the DAA, and why does HSB need approval from the DOT?

For your information... The DAA fitness audit encompasses a detailed in-person review of HSB's entire DOT tank inspection and authorization process. The DAA fitness audit includes, at a minimum, an on-site procedure review, an assessment of the design/build communication channels, an analysis of the design approval process, corrective actions, technical requests, and an evaluation of any continued education training. Furthermore, this year, a live demonstration at a client site was also witnessed by the DOT PHMSA (Pipeline and Hazardous Materials Safety Administration) to ensure HSB's processes were efficient in the field.



The team: In August, the global HSB Transportation Services team successfully completed this year's DAA audit. Essential to the renewal of the DAA Certification were technical managers Bruce Redfield and Tim Nuoffer, who have created an exemplary program for the field staff to follow. The HSB design team, located in Hartford, Connecticut, including engineers Sandy Babka, Oberst Mulet, and Emmanuel Alexis, provided the DAA auditor a detailed dive into HSB's approach of supporting the regulatory body's safety concerns as well as the required recommendation letters provided to clients for the production and sale of their products. The design team's comprehensive and systematic approach served as one example as to why our clients continue entrusting HSB to support their technical needs. Furthermore, this year, HSB AI/DOT Tank Inspector Thomas Dawson, performed exceptionally well while supporting HSB's client through the audit process. The HSB Transportation Services team yielded a clean fitness inspection audit resulting in another five-year DAA Approval Certification letter.

HSB offers certification of transportation cylinder and tank training, technical support, and support for your certification needs with the approved bodies. Please send all inquiries regarding this release to Frank Pesek, Transportation Services Commercial Manager, at frank_pesek@hsb.com.

About the author

Frank Pesek
Transportation Commercial
Manager
frank_pesek@hsb.com

Frank Pesek joined HSB in 2008 after serving eight years in the United States Navy and earned a Nuclear Engineering degree from Thomas Edison State College while serving aboard the USS Carl Vinson (CVN-70). He was a chemist and radiological controls technician on the reactor plants, work center supervisor, and a part of many nuclear cleanup evolutions while serving in the Navy. Frank started with HSB as an Authorized Inspector and qualified Nuclear Authorized Inspector where he performed client-facing inspections for six years. In 2014, he transitioned to the Sales Support team in a global project management role. His experience as a field service staff member allowed him to excel as the single point of contact for many global projects, while directing the design, inspection, and certification of each project. Frank has since transitioned into the role of Transportation Commercial Manager, marrying his technical knowledge with the business development and sales focus developed throughout his career. As the business development lead and part of a highly technically and accomplished global team, Frank is tasked with growing a very niche market for HSB Global Inspection and Engineering Services.

2023 technical training and marketing events

Technical training seminars. Registration coming soon.

Month	Topic
January	NBIC Repairs and Alterations (E21) - Register here
February	ASME Section IX - Welding Requirements (E21) - Register here
March	ASME Section III, Division 5 - High Temperature Reactors and SMR Overview (E21) - Register here ASME Section I and B31.1 - Power Boilers and Components (E21)
April	ASME Section VIII, Division 1 (E21)
May	ASME Section III, Division 1 - Overview and Nuclear Certification Process (E21)
June	Transportation Services
August	ASME 2023 Code Synopsis
September	ASME Section IX - Welding Requirements (E23) NBIC Repairs and Alterations (E23)
October	ASME Section III, Division 5 - High Temperature Reactors and SMR Overview (E23) ASME 2023 Code Synopsis
November	ASME Section VIII, Division 1 (E23) ASME 2023 Code Synopsis
December	ASME Section I and B31.1 - Power Boilers and Components (E23)

Live webinar: Co-hosted HSB and ASME. Registration now open.

February 14, 2023	ASME Conformity Assessment Program - Register here
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For more information on HSB training and events, please email us at GetInfo@HSB.com.

Please note, registration for the 2023 schedule will be open the first week of January. New topics may also be added throughout the year. [Click here](#) to visit the HSB Bookstore.



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HSB
One State Street
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GetInfo@HSB.com

Editor:
Jennifer Apruzzese, Global Marketing
Communications Manager

Contributors:
Mike Lockwood, VP Nuclear Code Services
Alex Garbolevsky, Codes and Standards
Frank Pesek, Transportation Commercial Manager