

**CONSOLIDATED
POWER SUPPLY**
NUCLEAR CERTIFIED PRODUCTS

3556 Mary Taylor Road
Birmingham, Alabama 35235
Phone (205) 655-5515
Fax (205) 655-5511

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

April 2, 2024

Subject: Reply to Notice of Nonconformance No. 99901263/2024-201-01
NRC Inspection of CPS Dated January 29 through February 2, 2024
NRC Inspection No. 99901263/2024-201

Dear Sir/Madam,

Herein, please find the Consolidated Power Supply (CPS) response to Notice of Nonconformance No. 99901263/2024-201-01 resulting from the Commission's Inspection of CPS conducted January 29 through February 2, 2024.

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Criterion III, "Design Control," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," states, in part, that "Measures shall also be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions for the structures, systems and components."

Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50, states, in part, that "measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery."

Section 4.2.1 of CPS Standard Procedure, SP-701, "Dedication of Commercial-Grade Items," states, in part, "Consolidated Power Supply cannot determine end use or safety significance of items and cannot perform the necessary evaluations for determining which individual characteristics must be verified in order to provide assurance that the dedicated item will perform its intended safety function. As a result, all chemical, mechanical, metallographic, and dimensional tests and inspections required by the material specification and customer order (and/or manufacturer's published literature if applicable) shall be considered as Critical Characteristics requiring verification during CPS dedication."

Contrary to the above, as of February 2, 2024, CPS failed to ensure the selection and review for the suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems, and components (SSC). Further, CPS failed to ensure provisions for examination of products upon delivery. Specifically, as part of the commercial-grade dedication for bar stock, channel strut, and beam materials; CPS failed to verify that certain dimensional critical characteristics such as camber, sweep, flatness, waviness, out of square, end out of

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square, and length of the item, conformed to the requirements in American Society for Testing and Materials (ASTM) A6, "Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling." CPS did not perform a physical measurement to verify compliance with the applicable tolerances and only performed a visual inspection to verify these critical characteristics. Adequate verification of all the critical characteristics provides reasonable assurance that the components the materials will be used for will perform their intended safety function.

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Extent of Condition

The noncompliance encompasses the raw materials dedicated by CPS since approximately June 2010 at which time CPS procedurally committed to categorize *all* dimensions of the applicable material specification as Critical Characteristics in response to a customer audit finding. This included the mill workmanship-type dimensions camber, sweep, waviness, flatness, out-of-square, end-out-of-square, and length...none of which needed to be categorized as Critical.

The items affected by the noncompliance are raw materials dedicated by CPS for fabrication either by CPS or its customers. Camber and sweep involve the curvature of an item. The remaining workmanship dimensions are self-explanatory. While the mill workmanship dimensions have the potential to hinder fit-up during fabrication, these dimensions do not impact safety function.

Cross-sectional and other dimensions that *do* affect the item's structural integrity or ability to maintain pressure boundary integrity (e.g., thickness, shape, OD, etc.) are, and have always been, physically measured as required. Furthermore, all chemical analyses, tests, and examinations required by the applicable material specifications are verified by actual measurement and testing.

Based on the workmanship nature of the dimensions in question, and based on physical measurement of the dimensions that *do* affect structural integrity, verification of camber, sweep, waviness, flatness, out-of-square, end-out-of-square, and length through visual inspection does not present a 10CFR21 defect or failure to comply.

Reason for the Noncompliance

Based on the temporary, pre-fabrication nature of the dimensions in question, CPS considered it sufficient to verify those dimensions using non-precision visual inspection to determine if there were any gross variations from a "reasonably straight/formed" condition that could adversely affect fabrication. Items visually found to be reasonably straight/formed were accepted on that basis, and the results documented as "ok" on the associated inspection records. While this was thought at the time to be acceptable practice for workmanship-type dimensions under procedure SP-701, the QA Manager, through human error, failed to recognize the existence of a noncompliance with procedure SP-401 para. 6.3.8 (the requirement to record the highest and lowest readings for all dimensions.)



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Corrective Steps That Have Been Taken

The noncompliance was entered into the CPS Corrective Action Program as Corrective Action Request No. I24-3.

The QA Manager verbally instructed QC Inspectors to resume physical measurement and documentation of the numerical results of applicable workmanship-related dimensions. This action returned CPS to a state of compliance with current procedural requirements.

A review of orders for items dedicated over the past 3 years was performed by the Quality Assurance Manager. The review found that:

1. As expected, only workmanship-related dimensions (camber, sweep, waviness, flatness, out-of-square, and end-out-of-square) had been verified by *visual inspection* as opposed to physical measurement. *Length* had either been verified by physical measurement, or by visual inspection as "each" when a "random length" had been ordered. All other dimensions reflected in the applicable Dedication Plans had been physically measured and the results recorded.
2. All dimensions that could adversely impact the structural integrity or the ability of the item to maintain pressure boundary (e.g., cross-section, diameter, width, thickness) had consistently been verified by physical measurement and documented as required.
3. All chemical analyses, tests, and examinations required by the applicable material specifications had consistently been performed and documented as required.

Corrective Steps That Will Be Taken to Avoid Further Noncompliance

1. Where numerical values are specified for workmanship-related dimensions by the applicable material specification, CPS will continue to physically measure and document the results of those dimensions along with the results of all other required dimensions.
2. Should CPS opt in the future to eliminate or recategorize workmanship-related dimensions that do not impact safety function, procedures will be revised and/or developed to make provisions for justifying those actions.
3. The Quality Assurance Manager has refamiliarized himself with the requirements of procedures SP-401 and SP-701 and has provided documented training to applicable QA/QC personnel. The topics of training included results of the NRC's Inspection at CPS, Notice of Nonconformance No. 99901263/2024-201-01, and reiteration that QC Inspectors are to continue physical measurement and documentation of the numerical results of applicable workmanship-related dimensions.

Date That Corrective Actions Will Be Completed


Corrective actions and associated training were completed as of April 2, 2024.



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Please contact me if I can be of further assistance or if additional information is required.

Respectfully Submitted,


Joe Robbins
Quality Assurance Manager
Consolidated Power Supply

cc: Ms. Kerri A. Kavanagh, Chief
Quality Assurance and Vendor Inspection Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation
kerri.kavanagh@nrc.gov