

60

December 6, 1989

U. S. Nuclear Regulatory Commission Office of Nuclear Materials Safety and Safeguards Division of Safeguards and Transportation Washington, D.C. 20555

Attention: C. E. MacDonald, Chief Transportation Branch

SUBJECT: NRC INSPECTION OF NUCLEAR PACKAGING, INC. FEDERAL WAY, WASHINGTON FACILITY

Gentlemen:

Enclosed are Nuclear Packaging, Inc.'s responses to the nonconformances identified during the NRC inspection of Núclear Packaging Inc.'s Federal Way, Washington facility on April 25-27. 1989.

In addition to the responses, corrective actions for each nonconformance detailed in your report (710192/89-01) are addressed including scheduled dates for implementation of those items which are in-process.

NONCONFORMANCE # 1 - 10 CFR 71.103 requires that the authorities and duties of persons performing quality related functions be clearly established and delineated in writing. The Technical Director's role in the review of nonconformances for SAR impact was not described.

NONCONFORMANCE # 4 - 10 CFR 71.135 states that written records describing the activities affecting quality be maintained for three years beyond the date when the licensee last engages in the activity for which the QA Program was developed. The results of the review of the design modification changed against the SAR were not documented.

NuPac Response - The Manager of Licensing/Analysis shall be responsible for reviewing all Quality Discrepancy Reports, Supplier Disposition Request and Corrective Action Reports to assess the impact of the nonconformance on the Safety Analysis Report. He shall initiate the required actions to reconcile those issues deemed to be significant. The Manager of Licensing shall, by his signature on the discrepancy report, indicate that all licensing and SAR considerations have been reviewed and no significant impact exists or if reconciliation is required, a plan is in place to FEE NOT REQUIRED reconcile the changes.

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December 6, 1989

C. E. MacDonald US NRC

Page 2

<u>Corrective Action</u> - The description of the Licensing/Analysis Manager's role will be incorporated into the next revision of the PNSI GA Manual as well as implementation procedures for discrepancy reporting and reporting of potentially significant deficiencies/defects. Additionally, the Quality Discrepancy Report form will be revised to designate a signature block for the Technical Director. These actions will be completed during January, 1990.

<u>NONCONFORMANCE # 2</u> - 10 CFR 71.37 (b) - requires that established codes and standards for use in packaging design, fabrication, assembly, testing, maintenance and use be identified. Standards and regulations concerning cleaning fluids used in the fabrication process are not specified.

<u>NuPac Response</u> - Nuclear Packaging procedure FS-01 (Specification for Machining and Fabricating Equipment) has been revised, since the time of the inspection, to specify acceptance levels of chlorides and total halogens for markers, tapes, compounds and cleaning fluids used in the fabrication process. NuPac drawings and shop travelers refer to FS-01 for these controls.

<u>Corrective Action</u> - The applicable pages of FS-01, revision 9, dated 8/18/89 are attached. NuPac will monitor compliance by performance of regularly scheduled internal audits.

<u>NONCONFORMANCE # 3</u> - 10 CFR 71.115(b) requires documentation which shows that material and equipment conforms to procurement specifications to be retained or to be available for the life of the package. Documentation of material and equipment suppliers was not available.

<u>NuPac Response</u> - Nuclear Packaging will revise its Standard Quality Specification form, which accompanies purchase orders to suppliers, to require that certificates of compliance must identify the original manufacturer or the developer of the original certified material test report. The revised SQS form will also require that the supplier maintain the subject documentation in accordance with 10 CFR 71.115(b) or provide it to Nuclear Packaging, Inc. in the event that the company ceases to exist.



December 6, 1989

C. E. MacDonald US NRC

Page 3

<u>Corrective Action</u> - Modification of the Standard Quality Specification form to include the above noted requirements will be completed by December 29, 1989. Additional training will be provided for those NuPac personnel affected by the revision during January, 1990.

Should you require any additional information or clarification of the information provided please contact the undersigned or V. K. Cannon, QA Manager at (206) 874-2235.

Sincerely,

Charles 1 Te.

C. J. Temus/ Technical Director Nuclear Packaging, Inc.

QA Concurrence: V. K. Cannon

QA Manager

FS-01, Rev. 9

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TABLE OF CONTENTS

			Page No
1.0	SCOP	1	
2.0	REFERENCED DOCUMENTS		1
3.0	GENE	GENERAL REQUIREMENTS	
	3.1	Document Precedence	2
4.0	FABRICATION REQUIREMENTS		2
	4.1 4.3 4.4 4.5 4.6	Weld Preparation, Welding and Grinding Machining Sheet Metal Fabrication Access Holes and Cutouts Flame Cut Surfaces/Edges Weld Size Dimensions	2 3 3 3 3 3
5.0	IDENTIFICATION AND MARKING		3
6.0	ASSE	MBLY	4
	6.1 6.2 6.3 6.4	Cleanliness Fit Alignment Fastener Torques	4 4 4 4
7.0	SURFACE PREPARATION		5
	7.1 7.2 7.3 7.4	General Carbon Steel Surfaces Stainless Steel Surfaces Aluminum Surfaces	5 6 6
8.0	COAT	ING SYSTEMS	6
9.0	QUALITY PLANNING & CONTROL		7
•	9.1 9.2 9.3 9.4 9.5 9.7	Manufacturing Planning Materials Control Process Control Non-Destructive Examination Critical Dimensions Other Dimensions Inspection Equipment	7 7 7 8 8 8
10.0	PREP	ARATION FOR SHIPMENT	8
11.0	HALI STAI	DE LIMITATIONS FOR AUSTENITIC NLESS STEEL	9
TABL	E 1	Fastener Torques	10
TABLE 2		Torque Values	11
FIGURE 1 Sample Packaging Procedure		12	
APPENDIX A			13

1

number (supplied by NuPac). Raw or in-process material identity may be also maintained with marking inks or paint pencils as appropriate to the component on specific drawing or contract requirements. Metal stamping/engraving shall be utilized for final delivery materials when specified by drawings or contract.

- NOTE: A) When the material to be marked is an austenistic stainless steel the felt tip marker must be of a halide content in accordance with Section 11.0.
 - B) When the material to be marked is a non-metallic product, dies or vibro etching shall not be used. Identification shall be done with indelible ink marker or as noted on the drawings.

6.0 ASSEMBLY

(87)

Assemble all equipment in accordance with directions delineated in approved assembly drawings. All rolling or sliding connections which do not have self-lubrication bearings or designated lubrications shall be lubricated with molybdenum disulfide with sodium silicate or other inorganic type binder.

6.1 Cleanliness

Prior to assembly, all components shall be cleaned of cutting oils, marking dyes, weld flux, splatter, scale, grime and all other foreign materials. Finished assembly and all interior surfaces shall be cleaned and visually and wipe test inspected in accordance with ASTM-A380.

6.2 Fit

Excessive force shall not be used in assembling difficultto-fit components. Instead, the cause of difficulty shall be determined and corrected.

6.3 Alignment

Shims may be used to align components at joints only where allowed by assembly drawings, or NuPac procurement specifications.

6.4 Fastener Torques

Threaded fasteners shall be torqued to the values specified on approved assembly drawings and/or approved procedures. When self-locking or prevailing torque nuts are used, they shall be torqued in accordance with the manufacturer's recommendations. 1

CAUTION:

EQUIPMENT SHALL BE PAINTED ONLY AFTER ANY NONDESTRUC-TIVE TESTING AS SPECIFIED BY APPROVED DRAWINGS AND SPECIFICATION REQUIREMENTS HAS BEEN COMPLETED AND ACCEPTED.

7.2 Carbon Steel Surfaces

Exterior carbon steel surfaces shall be cleaned of oil and grease after which mill scale, rust, rust scale, paint and other foreign matter shall be brushed or air cleaned to remove all traces of sand or grit and shall then be dried and painted.

7.3 Stainless Steel Surfaces

All stainless steel surfaces shall be thoroughly cleaned by power wire brushing to remove all dirt, welding flux and slag, paint and other detrimental foreign matter. The power wire brushes shall be stainless steel and not previously used on materials other than stainless steel.

Cleaning agents for stainless steel surfaces shall not contain halides in excess of the limits established in Section 11.0. This shall be verified by chemical labeling data or certification as available when specifically required by contract/purchase order.

NOTE: If materials are being fabricated other than stainless steel, clearly mark mechanical cleaning tools used on stainless steel, such as grinding wheels, deburring tools and wire brushes. Marking shall identify tools to be used on stainless steel only and be visible while tool is in use. Tools not marked for use on stainless steel shall not be used on stainless steel at any time.

7.4 Aluminum Surfaces

All aluminum surfaces shall be thoroughly cleaned to remove all dirt, welding flux and slag, paint and other detrimental foreign matter.

8.0 COATING SYSTEMS

8.1 All metal surfaces which may oxidize or corrode when subjected to an air environment, moisture or cleaning agents shall be painted in accordance with requirements of approved drawings or procurement documents. However, austenitic stainless steel, seal or faying surfaces, surfaces specified to be plated, or sliding surfaces between parts shall not be sandblasted or painted unless specifically required by approved drawings or procurement documents.

6

- 10.2 All boxes, crates, and shipments shall be identified with the center of gravity, lift points, the equipment number, tag number, buyers P.O. number and weight. This information shall be displayed by means of waterproof ink, crayon or where required, a metal tag fastened securely with screws, rivets, wire or weld.
- 10.3 When specified, packaging in accordance with requirements of ANSI N45.2.2, with the appropriate level indicated, shall be accomplished prior to delivery shipment transport.
- 10.4 All components and assemblies shall be suitably hoisted, lifted and/or positioned for loading to achieve delivery onto the deck of a suitable transporter provided by NuPac.

11.0 HALIDE LIMITATIONS FOR AUSTENITIC STAINLESS STEEL

The halide content of materials which contact austenitic stainless steel shall be limited to 150 ppm by weight of total chlorides and fluorides. When the customer contract requirements allow, the halide content may exceed 150 ppm but are not to exceed 200 ppm.

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CONTROL NO	26172
DATE OF DOC	Dec. 6. 1989
DATE RCVD.	Jcc. 14 1989
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