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A & G ENGINEERING II, INC.

Manufacturing Ferrous -- Non-Ferrous Fasteners

29910 Ohana Circle
Lake Elsinore, California 92330

November 29, 1990

Mr. E. William Brach, Chief
Vendor Inspection Branch
Division of Reactor Inspection Safeguards
Office of Nuclear Reactor Regulations
Nuclear Regulatory Commission
Washington D.C. 20555

REFERENCE DOCKET #99901006/89-01

Dear Mr. Brach,

Please be advised of our response to your letter of September 17th, which enumerated nonconformances identified in our Quality Assurance Program as found during your unannounced audit of May 15-18, 1989. The purpose of this inspection was to follow-up an allegation that A & G Engineering had provided nuts to Washington Public Power with manufacturers markings that did not match the A & G Certified Material Test Report. During the investigation of this allegation, your audit team also examined our complete Quality Assurance Program, including some 54 customer order files along with the numerous documents supporting the information in those files, and which included many orders for the purchasing of raw material from approved vendors, as well as raw material that had to be upgraded from non-approved sources, and also including numerous Certified Material Test Reports which did not properly describe the markings on the parts as required by the code and customer specifications. The Audit Team further examined our Quality Assurance Manual, Rev 0, dated 4-13-88, including all of the implementing procedures that support the manual, along with an in-depth and comprehensive examination of the implementation of the manual and the procedures into the production mill and warehouse, considering manufacturing, receiving, storage, inspection, shipping and the traceability practices. There were no nonconformances noted in any of these areas of examination and inspection. We are correctly assuming therefore, that the nonconformances noted in your letter are confined and are concerning the single incident of the allegation of Washington Power and are not inclusive of the A & G Quality Program as described in your letter statement "During this inspection it was found that the implementation of your Quality Assurance Program failed to meet certain NRC requirements", except that as such statements and supporting information in your letter may relate to the nonconformances as enumerated concerning the Washington Power Allegation.

Refer
Exhibit
1

9102140043 901129
PDR QA999 EECAGENG
99901006 PDR

1 Code PER S. MAGRUDER IE09
11

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It is our belief that all of your enumerated nonconformances have a somewhat common relationship to our interpretation and application of the Small Product Exclusions provisions of NX 2610, and the interpretation of 2610, numbered III-I-83-146. We understand that Interpretation III-I-83-146 is not part of the code or addenda. A & G Engineering had not applied the provisions of NX 2610 to any purchase order prior to the Washington Power Allegation or after your audit.

Interpretation III-I-83-146 states in part:

Question (1): Does NX 2610 --- require Certificate Holders to comply with NCA-3867-4(e) -----(Upgrading)

Reply (1): No -----

Question (3): ----- What requirements of NCA 3867-4 apply.

Reply (3): NCA 3867.4 (a),(b),(c),(d). (Upgrading is omitted)

Question (2): ----Material ----purchased---- be considered to meet Section III requirements without further upgrading or testing by the purchaser -----

Reply (2): Yes. -----

Additionally NX 2610 - Documentation and Maintenance of Quality Systems Programs, which is part of the Code, states in part:

(a) Except as provided in (b) below, material manufacturers --- shall have a Quality Systems Program --- which meets the requirements of NCA-3800.

(b) The requirements of NCA 3867.4 and NCA 3866.6 shall be met as required by NX 2130 and NX 2150, ----- other requirements of NCA 3800 need not be used by Material Manufacturers ---- for small products as defined in (c) below. (This section without the Interpretation III-I-83-146 would require upgrading.)

(c)-2 Bolting material, including studs, nuts, and bolts of 1" nominal diameter and less.

(c) -----for material which is allowed by this subsection to be furnished with a Certificate of Compliance. For these products, the Certificate Holders Quality Assurance Program NCA 4000, shall include measures to provide assurance that the material is furnished in accordance with the material specification -----.

(A & G provided a Certified Material Test Report for reasons explained later as a Material Manufacturer per NCA 9000.)

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While A & G believed that it had performed within the Rules of NX 2610, the NRC Audit Team disallowed the use of NX 2610 and the Interpretation III-I-83-146, based on the following additional interpretation and comments:

III-I-83-260R which states in part:

Question (1): May material ---- defined in NX 2610 be furnished ---- by a Material Manufacturer ---- without the N-type Certificate Holders prior consent.

Reply (1): No.

Refer Exhibit 4 We understand that Interpretation III-I-83-260R is not part of the code or addenda. It is further debatable when prior consent is obtained. The Orders of Washington Public Power specified ASME Section III material and NX 2610 is part of the subsection within Section III. The moot question concerns, unless NX 2610 is specifically excluded, is it therefore included and the prior consent has been obtained. However, the Audit Team pointed out that neither Washington Power or A & G Engineering are N-type Certificate Holders.

A & G is not wholly convinced of the correctness of one interpretation versus another. However, A & G is committed to the acceptance of this position as the expression of the desire and policy of the NRC who certainly bear the greater responsibility for the Nuclear Reactor Safety Safeguards.

A & G Engineering, acting within the Interpretation III-I-83-146 and the Small Products Exclusions of NX 2610, progressed through the following events that led to the Washington Public allegation:

- 1) Purchased approx. 1600 lbs of 5/16-18 (UNC) .25, SA 194 Grade 2H Hvy Hex Nuts, from Uchimoto who was neither an approved vendor or holder of a valid QSC Certificate.
- 2) Under the understanding of Interpretation III-I-83-146, A & G did not upgrade and perform a chemistry test on each of the approx. 81,000 pieces.
- 3) A & G took exception to the heat treatment as reported by Uchimoto and decided to re-heat treat the lot of nuts. The re-heat treatment was done by an A & G approved vendor. Within the concept of NCA 9000, A & G became the manufacturer of the nuts when it had directly controlled or supervised one or more of the operations which affect the material properties required by the material specification. The heat treating was performed using an A & G pre-approved heat treating procedure.

Refer Exhibit 5

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- Refer Exhibit 6
- 4) A & G then took random samples of the re-heat treated nuts to Atlas Testing Lab for complete physical and chemical testing. Atlas Test Lab used pre-approved procedures to perform these tests and to verify that the nuts met all of the requirements of the material specification. The lab, acting within the A & G pre-approved procedures also placed A & G in the role of manufacturer by verifying the satisfactory completion of all of the requirements of the material specifications. Atlas Testing Labs was an approved Vendor.
- 5) A & G shipped 200 each 5/16 nuts to Washington Public Power. This shipment was returned for bad markings. A & G then made the second shipment, also with bad markings. A & G had issued in each case a CMTR instead of the Certificate of Compliance as required by Washinton Power in the belief under NCA 3867.4 (a), (b), (c), (d), that all of the properties as controlled by A & G needed to be reported to the customer, which was all of the physical properties.
- Refer Exhibit 7
- 6) Washington Public Power Specification No. 10413 Rev. 1, paragraph 1.08, C-1 states "All nuts shall bear the manufacturers identification mark, and shall be traceable to the CMTR or to the Certificate of Compliance." By the definitions of NCA 9000, A & G was the manufacturer whose mark should be on the nuts. The bad markings as referred to in (5) above were the result of A & G attempting to remove the Uchimoto mark and to place the A & G mark on this small nut. The first shipment had both Uchimoto and A & G markings on different nuts in the same package.
- 7) The allegation to the NRC resulted from this marking problem. Washington Public Power performed a quality overcheck on the nuts and found them to be satisfactory. Quality has never been a point at issue in this allegation.

Within the context of the foregoing, may we now provide you with our specific answers to your proposed nonconformances.

- 1) A & G wishes to take exception to the following references of nonconformance to meet the requirements of 10 CFR 50 Appendix B.
- NRC-A) "Criterion V of Appendix B to 10 CFR Part 50 requires that activities affecting quality be prescribed by documented procedures and be accomplished in accordance with these procedures."

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1. Acting within the concepts of A & G Procedure 114, A & G did perform chemical and physical property overchecks on the material on a random sampling basis to assure that the material would meet the requirements of the material specification. In addition, A & G performed a re-heat treatment of the material to assure meeting the specifications. A & G believes that it has met the intent of Criterion V.

Refer
Exhibit
5-B

NRC-B. "Criterion VIII of Appendix B to 10 CFR Part 50 requires that measures be established for the identification and control of material, parts and components to assure that identification of the item is maintained by heat number, part number, serial number, or other appropriate means."

1. When the material was received, Receiving Inspection assigned a unique heat code to the Uchimoto reported heat number. These numbers were:

Heat D4X279 - Assigned Heat Code "IZJ"

These numbers and letters were entered into the permanent ledger of the Heat Code Log. The heat code then was traced throughout the production and testing sequences of the material and appeared on all of the reports, test reports, shop traveller, inspection reports, storage and identification materials, packing lists, shipping documents and certifications.

The certification to the customer showed Heat D4X279 and Heat Code IZJ. The container tag to the customer showed Heat Code IZJ.

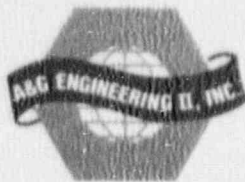
A & G believes that it has met the intent of Criterion VIII. Traceability was fully maintained.

NRC-C. "Criterion VII of Appendix B 10 CFR Part 50 requires that measures shall be established to assure that purchased material, equipment and services whether purchased directly or through contractors and subcontractors, conform to the procurement documents."

1. Acting within the concepts of Procedure 114, A & G did obtain objective evidence at receiving inspection that the material would meet the requirements of the purchase order if re-heat treated and re-tested after heat

Refer
Exhibit
5-6-7-9-13

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treating. By performing receiving inspection, dimensional, chemical and physical testing, A & G believes that it has met the intent of Criterion VII. Test of each piece not required.

NRC-D "Criterion VII of Appendix B 10 CFR Part 50 requires that measures be established to assure that purchased material, equipment and services, whether purchased directly or through contractors or subcontractors, conform to the procurement documents."

1. Acting within the concepts of A & G Procedure 114, A & G did obtain sufficient objective evidence at receiving inspection sufficient to identify the specific requirements such as codes, standards, or specifications as met by the purchased material. (Per A, B, and C above). Traceability to the original heat number and the chemical analysis as performed by Uchimoto has been maintained. A & G believes that it has met the requirements of Criterion VII.

2. A & G wishes to bring these exceptions to your attention due to the fact that these matters were discussed and decided during the Audit and with the concurrence of the Audit Team, a letter was dispatched to both Washington Public Power and Rancho Seco, advising them that the nuts in question met all of the requirements of Appendix B, 10 CFR Part 50. A & G is currently selling off these nuts into the commercial market and has no intention of selling any of them into the nuclear market under any condition including Appendix B, 10 CFR Part 50, however, we want to protect the integrity of the statement made in the letter that is now on file with Washington Public Power. Rancho Seco has returned the nuts and they have been scrapped, as will be described later.

With reference to your letter Appendix A, Notice of Nonconformance, we wish to make this comment concerning paragraph 3 of Item 1.

NRC- "Procedure 114, "Non-Code Safety Related Material" dated Dec. 4, 1986 Revision A, requires that the A & G Purchasing Department purchase material from suppliers on the A & G QVL".

Exception is taken to this because it is inadvertently mis-quoted. The correct quote is "A & G Purchasing Department, may purchase material from the A & G Engineering Approved Vendor List, in which case no further verification is required."

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(The procedure further explains what testing and verification is required if the purchase is from a vendor not on the QVL).

1. Referencing Appendix A, Notice of Nonconformance, Item 1, we wish now to submit the following in resolution of the item:

NRC- "Contrary to the above, A & G purchased commercial grade 5/16-18 Heavy Hex Nuts from Uchimoto Manufacturing Co. Ltd. (Uchimoto), who was neither approved nor on the QVL. (89-01-01)."

- A. Description of steps that have been or will be taken to correct these items identified in the enclosures.

1. A & G will make no further purchases of any material within NX-2610 or Interpretation III-1-83-146.

- B. Description of steps that have been taken or will be taken to prevent recurrence.

1. Same as A.

- C. Dates corrective actions and preventive measures completed.

1. At the exit meeting with the NRC Audit Team 5-19-89.

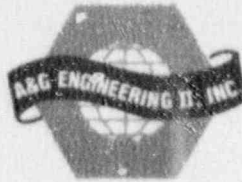
With reference to your letter Appendix A, Notice of Nonconformance, we wish to make this comment concerning paragraph 2 of item 2.

NRC- "Paragraph NCA 3866.6(a)(1) of Section III of the ASME Code states that the identification of completed material shall consist of marking the material with applicable specification and grade of material, heat number or heat code of the material, and any additional marking required by this section to facilitate traceability of the reports of the results of all tests and examinations performed on the material. Alternatively, a marking symbol or code may be used which identifies the material with the material certification and such symbol or code shall be explained in the Certified Material Test Report (CMTR) or Certificate of Compliance (COC) as applicable."

Exception is taken to this nonconformance reference because A & G feels that its actions concerning marking of the product are in conformance with the intent of NCA 3866.6.

Refer
Exhibit
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Paragraph NCA 3866.6(a)(4) states that:

"Marking requirements for small products, except as required by the material specification, bolts and nuts 1" nominal diameter and smaller need not be individually marked, provided they are packaged in packages or containers which shall be clearly identified by legible marking to ensure positive identification of the material. The marking on the container shall identify the material with the manufacturers Certification of Conformance or Certified Material Test Report."

Refer
Exhibit
12

A & G assigned Heat Code "IZJ" to the Uchimoto reported heat number D4X279, into the permanent Heat Code Log book at receiving inspection.

This heat code was traced throughtout the process testing and final inspection, packaging, and shipping to the customer.

Washington Public Power was provided with the following information:

- a. Copy of packing list showing description of the product and heat code "IZJ".
- b. Copy of certified material test report showing heat number D4X279 identified with heat code "IZJ".
- c. Shipping container (box) with tagged description of the contents of the box and showing heat code "IZJ".

Refer
Exhibit
5-6-7-9-13

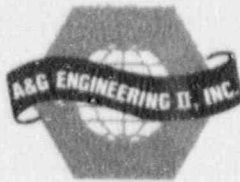
Small part identification was adequately maintained by this method meeting the intent and requirements of NCA 3866.6.

2. Referencing Appendix A, Notice of Nonconformance, Item 2, we wish now to submit the following in resolution of the item:

NRC- "Contrary to the above, A & G supplied 5/16-18 Heavy Hex Nuts to the Sacramento Municipal Utility District (Rancho Seco) and Washington Public Power Supply System (WNP-2) with an A & G CMTR that did not describe the markings applied to the nuts."
(89-01-02)

- A. Description of steps that have been or will be taken to correct those items identified in the enclosures.

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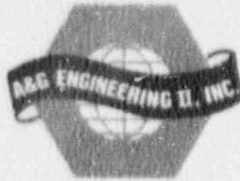
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1. A & G did not explain on the CMTR to Washington Public Power the discrepancy of the manufacturers markings on the nuts. The material specification requires that the nuts be marked with the grade (2H) and the manufacturers the symbol. This obvious conflict will be avoided by A & G not purchasing any more material within NX 2610 and Interpretation III-I-83-146, where-in additional processing might be required to raise the matter of Manufacturer Identification.
- B. Description of steps that have been or will be taken to prevent recurrence.
 1. A & G will make no further purchases of materials within NX 2610 or Interpretation III-I-83-146.
- C. Dates corrective actions and preventive measures completed.
 1. At the exit meeting with the NRC Audit Team 5-19-89.
3. Referencing Appendix A, Notice of Nonconformance, Item 3, we wish now to submit the following in resolution of the item
NRC- "Contrary to the above, A & G did not perform a product analysis to verify the chemical composition of each piece (nut) of stock material (commercial grade) purchased from Uchimoto and supplied to Rancho Seco and WNP-2 as 5/16-18 hex nuts of SA-194 grade 2H, class 2H, ASME Section III, Class 1 material." (89-01-03)
 - A. Description of steps that have been or will be taken to correct those items identified in the enclosures.
 1. A & G will make no further purchases of material within NX 2610 or Interpretation III-I-83-146.
 - B. Description of steps that have been or will be taken to prevent recurrence.
 1. By not purchasing as in A above, the methods available will be NCA 3867.4(e) --Upgrading-- and other guides from A & G's Manual and Procedures.
 - C. Dates corrective actions and preventive measures completed.
 1. At the exit meeting with NRC Audit Team 5-19-89.

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4. Referencing Appendix A, Notice of Nonconformance, Item 4, we wish now to submit the following in resolution of the item.

NRC- "Contrary to the above, traceability to the Uchimoto CMTR (which is necessary for certification of the heat analysis from the manufacturer and the requirements of the material specification which must be performed during melting by the manufacturer) was lost by striking over the Uchimoto manufacturers mark by A & G when applying the A & G mark on the 5/16-18 heavy hex nuts supplied to Rancho Seco and WNP-2". (89-01-04)

We take exception to the nonconformance reference that traceability to the Uchimoto CMTR was lost by failure to upgrade each piece as required by NCA 3867.4(e), and the subsequent striking over of the manufacturers mark. Traceability from Uchimoto, through A & G's operation, and the delivery of the material to Washington Public Power is documented in response to letter item Appendix A, Notice of Nonconformance, paragraph 2 of item 2. This exception is based in the fact that traceability may be established to the Uchimoto CMTR by means other than upgrading. It is believed that upgrading alone without the application of the small products provisions of NCA 3866.6(a)(4) would not provide sufficient means to provide adequate modes of traceability.

If the customer (Utility or Certificate holder) applied NB-4122, the following might be true:

NB-4122 Material Identification states in part:

---For studs, bolts, nuts, and heat exchanger tubes it is permissible to identify the Certified Material Test Reports for material in each component in lieu of identifying each piece of material with the Certified Material Test Report and the coded marking.

Regardless of the marking on the nut, the Utility would tie the nut in the component back to the A & G CMTR, and thus back through A & G via NCA 3866.6(a)(4) to the Uchimoto CMTR.

In any event, the discussion and exception is moot because we do not have any intention of pursuing the program of striking over other manufacturers marks with our own.

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- A. Description of steps that have been or will be taken to correct those items identified in the enclosures.
1. A & G will make no further purchases of material within NX 2610 or Interpretation III-I-83-146. There will be no future need to heat treat material acquired in this fashion and to make a decision within any program as to whose manufacturers mark should be applied.
- B. Description of steps that have been or will be taken to prevent recurrence.
1. Same as A above.
- C. Dated corrective action and preventive measures completed.
1. At exit meeting with the NRC Audit Team 5-19-89.

Referencing your letter page 3 of 7:

Item C. Unresolved items (Open unresolved)

1. 500 5/16-18 Heavy Hex Nuts supplied to Rancho Seco with manufacturers mark as same as nuts supplied to Washington Public Power.
 - A. A & G Engineering provided a letter to Rancho Seco advising the NRC decision that the nuts were acceptable under Appendix B, 10 CFR Part 50, but not acceptable as Section III material. Rancho Seco elected to return the nuts to A & G, and the nuts have been scrapped by A & G.
2. 200 5/16-18 Heavy Hex Nuts supplied to Washington Public Power in two different shipments with different markings appearing in one shipment, and with different markings between the two shipments. (This item will remain open until A & G provides the NRC with the rationale for the differing markings between the two shipments.)
 - A. Websters dictionary interprets the word "Rationale" as meaning a statement-exposition of reasons or principles. Because of the heat treating performed within the interpretation of NCA 9000, A & G believed that it was the manufacturer of the nuts and that the nuts should be marked accordingly. There was no other motivation force upon which these actions were based.

Refer
Exhibit
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A & G Engineering provided a letter to Washington Public Power advising of the NRC decision that the nuts were acceptable under Appendix B, 10 CFR part 50, but not acceptable as Section III material.

Refer
Exhibit
10 & 16

Washington Public Power elected to return the nuts to A & G and the nuts have been scrapped by A & G.

The plant employee who actually performed the stamping of the nuts, and the inspector who signed off on the final shipment, have both left the employment of A & G Engineering within the past year.

We can agree that it does not require a quick and agile eye or mind to decide that there is something amiss when two different markings are on the same identified material within the same container. This can be reasoned as human error, but it does not fulfill the "Rationale" requirement of law or doctrine or motivation force upon which all other explanations depend.

This is however our belief.

We regret that this answer has been delayed. However, we had notified your office earlier that we were being delayed in our responses by the delay in getting the nuts back from Washington Public Power. The nuts were received back here on November 27th.

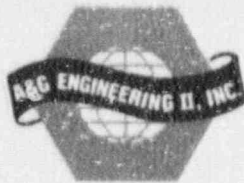
Refer
Exhibit
17

We wish to comment that the conduct of the Audit Team was thorough and efficient, and that the highest professionalism was exhibited by the individual members of the team. We felt that the team examined objectively and fairly and were forthright in sharing their opinions and decisions. From the positive tone established during the inspection, we were somewhat justifiable disappointed by the overall format and somewhat negative image created by the context of the report as issued. We had waited a year and a half to receive the report.

1. Before A & G had any knowledge that your report had been formulated and written, copies were somehow being provided to some of our key accounts, who began calling us to find out what our responses to the enumerated nonconformances would be.

The Washington Public Power allegation is now approaching two years in age.

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While we have taken exception to some of the items listed in your report, we want you to know that these exceptions are respectfully submitted, and that due to the age of the allegation we share with you a strong desire to put this matter to rest, and to move on to more productive efforts.

We feel that the responses to the nonconformances will resolve the matters, and will you please direct your further questions to me.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Marvin E. Thomas', is written over the typed name.

Marvin E. Thomas
President

MET/ph

A&G RECORD OF

DOCUMENTS EXAMINED BY NRC AUDIT TEAM

MAY 15-18, 1989

CUSTOMER PACKAGE FILES EXAMINED:

Arizona Power	18
Pac. Gas & Elect.	17
Virginia Elect	5
TVA	3
Georgia Power	2
Velan Valve	1
Pacific Pumps	1
Gould Pumps	1
Pacific Valve	1
Houston Light	1
Crane Alloyco	1
Hardware Spec	1
Penn. Power	1
WPPS	1
	<hr/>
	54

WPPS (allegation file)	1
Rancho Seco	1

A&G TYPICAL VENDORS LIST:

Steel Plants .
 Material Manufacturers.
 Material Suppliers.
 Destructive Test Labs.
 NDE Labs.
 Heat Treaters.
 Cleaning Coating.
 SPECIAL Processing:
 Hot Heading.
 Special Threads.
 Machine Shops.
 Calibration Services.

TYPICAL CONTENTS OF FILES EXAMINED:

Original Quote To Customer.
 Customer Order.
 Order Entry Process Sheets.
 Shop Travelers.
 Orders to suppliers of Material.
 Receiving Inspection reports.
 Up Grade Chem Reports.
 Overcheck Reports.
 Orders to sub-vendors of services.
 Receiving Inspection reports.
 Destructive Testing.
 NDE.
 Material Processing physical.
 Material Processing Heat Treating.
 Cleaning and coating
 Reports of all tests and Examinations.
 Final Inspection results.
 Copy of CMTR or C of C as issued.
 Other Misc documents.

TYPICAL FILE HAS MORE THAN ONE LINE ITEM. THE CONTENTS OF THE FILE WILL REFLECT THE TOTAL CONTENTS COVERING EACH INDIVIDUAL LINE ITEM.

OTHER QUALITY/ASSURANCE DOCUMENTS EXAMINED:

A&G Q.A. MANUAL REV.0 DATED 4-13-88	84 Pages
Quality Assurance Procedures Manual	20 Sections.
Receiving, processing, shipping data	11 pages
A&G Vendor List and supporting audits of approved Vendors.	25

OUR RECORDS OF THE AUDIT AND YOUR REPORT DOES NOT REFERENCE ANY NONCONFORMANCES IN ANY OF THE ABOVE AREAS OF APPLICATIONS OR DOCUMENTS, (EXCEPTING THE WASHINGTON POWER ALLEGATION).

Section III — Interpretations No. 14

Interpretation: III-1-83-146

Subject: Section III, Division 1, NCA-3867.4 (NA-3767.4) Material Certification, and NB/NC/ND-2610 Documentation and Maintenance of Quality System Programs, 1974 Edition to 1980 Edition

Date Issued: September 21, 1983

File: N183-025

Question (1): Does NX-2610(b) and (c) require Certificate Holders to comply with NCA-3867.4(e) and (f) [NA-3767.4(e) and (f)] for stock material produced by a Material Manufacturer whose Quality System has not been qualified under the rules of NCA-3800 (NA-3700)?

Reply (1): No. Within the limitations of NX-2610(b) and (c), material must be certified in accordance with NX-2130 and NCA-3867.4(b) [NA-3767.4(b)], but the other requirements of NCA-3800 (NA-3700) do not apply.

Question (2): May material ordered and purchased by an organization under the rules of NX-2610(b) and (c) to an SA specification without reference to NCA-3800 (NA-3700) or Section III of the Code be considered to meet Section III requirements, without further upgrading or testing by the purchaser if the Certified Material Test Report includes the SA material specification but no reference to the requirements of Section III?

Reply (2): Yes, provided the requirements of NCA-3867.4(a), (b), (c), and (d) [NA-3767.4(a), (b), (c), and (d)] and NX-2000 are met.

Question (3): When purchasing material in accordance with NX-2610(b) and (c), what requirements of NCA-3867.4 (NA-3767.4) apply?

Reply (3): NCA-3867.4(a), (b), (c), and (d) [NA-3767.4 (a), (b), (c), and (d)].

Question (4): Do the requirements of NX-2610(b) and (c) and NCA-3867.4 (NA-3767.4) apply to nonpressure-retaining material?

Reply (4): Yes, as applicable.

1986 Edition

NB-2000 -- MATERIAL

NB-2585.4-NB-2700

height of the first back reflection or any discontinuity that prevents the production of a first back reflection of 50% of the calibration amplitude is not acceptable.

NB-2589 Repair by Welding

A86

Weld repairs of bolts, studs, and nuts are not permitted.

A86 NB-2586 Ultrasonic Examination for Sizes Over 4 in.

In addition to the requirements of NB-2585, all bolts, studs, and nuts over 4 in. nominal bolt size shall be ultrasonically examined over the entire end surface before or after threading in accordance with the following requirements.

NB-2586.1 Ultrasonic Method. Examination shall be carried out by the straight-beam, longitudinal-scan method.

NB-2586.2 Examination Procedure. Examination shall be performed at a nominal frequency of 2.25 MHz with a search unit having a circular cross section with a diameter not less than 1/2 in. nor more than 1 1/2 in.

NB-2586.3 Calibration of Equipment. Calibration shall be established on a test bar of the same nominal composition and diameter as the production part and a minimum of one-half of the length. A 3/8 in. diameter by 3 in. deep flat-bottom hole shall be drilled in one end of the bar and plugged to full depth. A distance-amplitude curve shall be established by scanning from both ends of the test bar.

NB-2586.4 Acceptance Standard. Any discontinuity that causes an indication in excess of that produced by the calibration hole in the reference specimen as corrected by the distance-amplitude curve is not acceptable.

A86 NB-2587 Time of Examination

Acceptance examinations shall be performed after the final heat treatment required by the basic material specification.

A86 NB-2588 Elimination of Surface Defects

Unacceptable surface defects on finished bolts, studs, and nuts are not permitted, and are cause for rejection.

NB-2600 MATERIAL MANUFACTURERS' QUALITY SYSTEM PROGRAMS

NB-2610 DOCUMENTATION AND MAINTENANCE OF QUALITY SYSTEM PROGRAMS

(a) Except as provided in (b) below, Material Manufacturers and Material Suppliers shall have a Quality System Program or an Identification and Verification Program, as applicable, which meets the requirements of NCA-3800.

(b) The requirements of NCA-3867.4 and NCA-3866.6 shall be met as required by NB-2130 and NB-2150, respectively. The other requirements of NCA-3800 need not be used by Material Manufacturers or Material Suppliers for small products, as defined in (c) below, for brazing material, and for material which is allowed by this Subsection to be furnished with a Certificate of Compliance. For these products, the Certificate Holder's Quality Assurance Program (NCA-4000) shall include measures to provide assurance that the material is furnished in accordance with the material specification and with the applicable requirements of this Subsection.

(c) For the purpose of this paragraph, small products are defined as given in (1) through (4) below:

- (1) pipe, tube (except heat exchanger tube), pipe fittings, and flanges 2 in. nominal pipe size and less;
- (2) bolting material, including studs, nuts, and bolts of 1 in. nominal diameter and less;
- (3) bars with a nominal cross-sectional area of 1 sq in. and less;
- (4) material for pumps and valves with inlet pipe connections of 2 in. nominal pipe size and less

A87

NB-2700 DIMENSIONAL STANDARDS

Dimensions of standard items shall comply with the standards and specifications listed in Table NB-3132-1.

* Please note that the words "for brazing material" were added in the '87 addenda (Probably issued early '88)

Interpretation: III-1-83-260R

Subject: Section III, Division 1; NX-2610(b) Material Certification (All Editions)

Date Issued: December 5, 1986

File: NI84-057*

Question (1): May material which qualifies as small products as defined in NX-2610(c) be furnished under the provisions of NX-2610(b) by a Material Manufacturer or Material Supplier without the N Type Certificate Holder's prior consent?

Reply (1): No.

Question (2): May a Quality Systems Certificate Holder include his Certificate Number and expiration date on documentation associated with material manufactured and/or supplied under the Quality Program to the applicable requirements of NX-2610(b) and NCA-3800?

Reply (2): No, because NX-2610(b) is an exception to NCA-3800.

~~**Interpretation: III-1-83-294R**~~~~Subject: Section III, Division 1, NCA-3854 Organization (1983 Edition With Winter 1984 Addenda)~~~~Date Issued: December 5, 1986~~~~File: NI85-009*~~~~Question (1): May personnel performing inspection or examination for acceptance to specifications report to the immediate supervisor responsible for doing the production work?~~~~Reply (1): No.~~~~Question (2): Is it permissible for quality assurance personnel to perform spot-checks and internal audits to verify compliance with the material specification and quality assurance manual requirements in lieu of final inspection?~~~~Reply (2): No.~~

NOTE: YOUR LETTER OF INSPECTION RESULTS PAGE 2 OF 7;

REFERENCE B - 3 NONCONFORMANCES:

(LINE 19)

CONTAINS A TYPOGRAPHICAL ERROR- SHOWING ----

III-I-83-260R AS

III-I-83-206R



A & G ENGINEERING II, INC.

4640 E. LA PALMA AVE. - ANAHEIM, CA 92807-1992 - (714) 779-4100
FAX: (714) 779-2245

NUCLEAR PURCHASE ORDER

PAGE 1
PURCHASE ORDER
04687

OUR ORDER NUMBER MUST APPEAR ON ALL PAPERS
AND PACKAGES RELATIVE TO THIS ORDER

A&G ENGINEERING
NRC
EXHIBIT 5
Page 1 of 4

PRE188
VENDOR: PRECISION HEAT TREATING CO
P.O. BOX 430
MONTEBELLA, CA 90640
213/724-4680

CHAIN:

SHIP TO: A&G ENGINEERING II, INC.
4640 E. LA PALMA AVE.
ANAHEIM, CA 92807-1992

NO COLLECT SHIPMENT ACCEPTED

P.O. DATE	DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	TAX	CONFIRMING TO	PURCHASED BY
9-18-88	08-19-88	Y/T	COLLECT	NET 45			
REQUISITION NO.	REQUISITIONED BY	PART 10CFR-21 APPLIES					

ITEM NO.	DESCRIPTION	REMARKS	UNIT PRICE	QTY. REC'D	QTY. B/O	A&G CUSTOMER	SALES ORDER NO.
1394	I-HEAT TREATING HEAT TREATING PDA NSP/02527/002	B1000- 5/16-18 HVY HEX NUTS ASTM A-194 2H NUTS ***** 9-KECS 1394 LBS ***** HEAT CODE "12J" ***** 1045 MATERIAL QUENCH AND TEMPER TO MEET THE REQUIREMENTS OF PROCEDURE NO. A-194 2H ***** PROCESSED IN ACCORDANCE WITH PRECISION HEAT TREATING CO. QUALITY PROGRAM AND MANUAL DATED 3-13-87, REVIEWED AND APPROVED BY A & G ENGINEERING CO 2-12-88 SEE PROCEDURE MANUAL FOR DATED	.185 LB				
		AND PROCEDURE NUMBERS USED FOR EACH SPECIFIC TYPE OF HEAT TREATMENT, AND THIS PROCEDURE NUMBER AND DATE SHOULD APPEAR ON THE PRECISION CMTR					
		TOTAL				257.89	

ITEM	LOT QUANTITY	SAMPLE	ACCEPTED	REJECTED	HEAT NUMBER	CERTS RECEIVED
1	2100	SW	STOP		12J	
2						
3						
4						
5						
6						
7						
8						
9						

INSTRUCTIONS TO SELLER

- Under acknowledgment or performing this order, accept the terms and conditions appearing on the face and reverse side hereof and agree to comply with the instructions.
- Purchase order number must appear on all packages, bills of lading, and invoices.
- Include packing slip on all shipments and documentation.
- Purchase order price must agree with invoice prices or invoice cannot be processed, unless our purchase order indicates otherwise.

RECEIVED & INSPECTED BY: *JR [Signature]*
VERIFIED BY: _____
ORDERED BY: _____

CERTIFICATIONS REQUIRED WITH ALL SHIPMENTS

(CONTINUED ON REVERSE SIDE)

DATE: 9/18/88



PRECISION HEAT TREATING CO.

1532 SOUTH GREE. ROAD AVENUE
MONTEBELLO, CALIFORNIA 90640

TELEPHONE: (213) 724-4886 TELEX: 674089

A&G ENGINEERING
NRC

EXHIBIT 5
Page 2 of 4

TERMS:
NET 30 DAYS
NO DISCOUNT

123307

S
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O

A & G Engineering II, Inc.
4540 E. La Brea Ave.
Anaheim, CA 92807

S
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P
T
O

PARTIAL	COMPLETE	B/L NUMBER	TYPE OF SALE	SHIP VIA	SHIPPING DATE	INVOICE DATE	INVOICE NUMBER
<input type="checkbox"/>	<input type="checkbox"/>						
CUSTOMER NO.	CUSTOMER ORDER NUMBER	CODE	F.O.B. MONTEBELLO		ORDER DATE	REQUIRED DATE	
6003	04667	T.L.	our Stock		8-19-88		

QUANTITY		DESCRIPTION	PRICE	AMOUNT
ORDERED	SHIPPED			
13944		5/16 - 18 Hwy Hex Nuts (81,000 pcs.) 9 bags Quench & Draw to 24/38 R/C 1045 Steel	ACCEPTED AUG 26 1988 RWT NUCLEAR APPROVED	
1 ea.		Certification Heat Code "12J"		

SHIPPING RECORD
CUSTOMER COPY

123307

RECD BY

John Wilson

DATE

8-25-88

CERTIFIED
TEST REPORT

PRECISION HEAT TREATING COMPANY
1532 SO. GREENWOOD AVE.
MONTEBELLO, CALIFORNIA 90840
PHONE: (213) 724-4880 TELEX 674089

Card No. 66961
Date 8-24-88

Customer's Name: A & G Engineering II, Inc.

Customer's Order No. 04687 Req. No. Our Shipper No. 123307

Material: 1045 Steel Part No. 5/16 - 18 Hvy Hex Nuts No. Pcs. 81,000

Heat Code "IZJ" 1394# 9 kegs

OPERATION	TEMPERATURE	TIME at HEAT	QUENCHED IN	ATMOSPHERE & DEW POINT	SPECIFICATION NO.
Hardening	1600 °F	1 hr 20 min Hrs.	Oil	55/60	ASTM A194 2H
Normalizing					
Annealing					
Tempering	900 °F	4 hrs. Hrs.	Air		
Stress Relieving					
Hardness Required	24/38 R/C	Carbo-Nitriding	Case Depth		% Tested spot Check

We hereby certify that the above listed parts have been heat treated by Precision Heat Treating Company and that the
Hvy Hex Nuts were tested for hardness on the Rockwell testing instrument and found to
test within the following range: to 25/26 R/C

NUCLEAR

This order has been processed in accordance with PHT Co. Quality Control Manual Dated 3-13-87 which has been approved by A & G Eng. Co. Meeting NCA 3800 - Dated 2-1-88



PRECISION HEAT TREATING COMPANY

B. J. Jander
Authorized Signature

following a specific activity at which inspection or examination is required before further work can be performed.

Hydrostatic Test. The pressurization of an item to a test pressure using water or other liquid as a testing medium with the required examination prescribed by the Code.

Identification and Verification Program. The Identification and Verification Program is a system for the positive identification of material during storage and handling and verification of the identity of material on the accompanying Certified Material Test Report or Certificate of Compliance at the time of shipment both into and out of the Material Supplier's facility.

Inspection. Activities performed by an Authorized Nuclear Inspector. For Division 2, also includes examinations or measurements performed by Certificate Holder's personnel to verify whether an item or activity conforms to specified requirements.

Inspection Specialist. An Authorized Nuclear Inspector or Authorized Nuclear Inspector Supervisor, so designated by his employer.

Inspector. The Authorized Nuclear Inspector as defined in NCA-5122. The term Inspector, as used in this Subsection, is the same as the term Authorized Inspector as used in Division 2.

Instructions. Detailed written directions provided to persons or organizations to ensure proper completion of a task.

Joining. The act of connecting two or more items to one another, by welding, brazing, bolting, or other mechanical means.

Jurisdictional Boundaries. The physical limits of a Code item which are identified to determine the applicability of Code rules for that item.

Linear Support (Linear-Type Support). A structural element acting under essentially a single component of direct stress. Such elements may also be subjected to shear stresses. Examples of such structural elements are tension and compression struts, beams and columns subjected to bending, trusses, frames, rings, arches, and cables.

Load Capacity Data Sheet. The design document used in lieu of a Design Report when a component support is designed by Load Rating to verify that the requirements of NF-3000 have been met.

Material. For Division 1, refers to metallic materials which are manufactured to an SA, SB, or SFA specification, or any other material specification permitted by this Section. For Division 2, refers to metallic materials, as well as to nonmetallic materials,

conforming to the specifications permitted in this Section.

Material Manufacturer (Metallic). An organization which certifies that the material is in compliance with the requirements of the basic material specification. In addition, the Material Manufacturer (Metallic) performs or supervises and directly controls one or more of the operations which affect the material properties required by the material specification and verifies the satisfactory completion of all the requirements of the material specification performed prior to that certification.

Material Specification. A document which establishes the requirements for a material.

Modification. A change to an item made necessary by, or resulting in, a change in design requirements.

Monitor. To watch, observe, or check to ensure compliance with this Section and the requirements of the Owner's or Certificate Holder's Quality Assurance Program. This activity is not necessarily documented or required to be on a continuous basis.

Nonconformance. A deficiency in a characteristic, documentation, or procedure that renders an item or activity unacceptable or indeterminate.

Nonmetallic Material Constituent Supplier. An organization which manufactures, produces, and supplies the concrete constituents for plastic concrete or grout in accordance with the Construction Specification.

Nonmetallic Material Manufacturer. An organization which receives, stores, conveys, and combines the concrete constituents to produce plastic concrete or grout in accordance with the Construction Specification.

Owner. The organization which obtains a construction permit from the Regulatory Authority for the construction of a nuclear power plant.

Part. An item which is attached to or becomes a portion of a component or component support before completion and stamping of the component or component support. Parts have work performed on them requiring verification by an Inspector.

Pneumatic Test. The pressurization of an item to a test pressure using a gas as the testing medium with the required examination prescribed by the Code.

Qualified Procedure. A procedure that has been demonstrated to meet the specified requirements for its intended purpose.

Quality Assurance Manual. A written document which describes a Quality Assurance Program.

Quality Assurance Program. A controlled system of planned and systematic actions required to provide



A & G ENGINEERING II, INC.

4840 E. LA PALMA AVE. ANAHEIM, CA 92807
FAX: (714) 779-2245

PURCHASE ORDER

PURCHASE ORDER
04729

OUR ORDER NUMBER MUST APPEAR ON ALL PAPERS AND PACKAGES RELATIVE TO THIS ORDER.

VENDOR: ATLO25
ATLAS TESTING LABORATORIES
P.O. BOX 2206
ROLLING HILLS, CA. 90274

(CHAIN)

SHIP TO: A&G ENGINEERING II, INC.
4840 E. LA PALMA AVE.
ANAHEIM, CA 92807 - 1992

NO COLLECT SHIPMENT ACCEPTED

A&G ENGINEERING
NRC
EXHIBIT 6
Page 1 of 3

P.O. DATE	DATE RECEIVED	SHIP VIA	F.O.B.	TERMS	TAX	CONFIRMING TO	PURCHASED BY
8-21-88	08-28-88	VT	COLLECT	NET 45		CHARLIE	<i>[Signature]</i>

PART 1 CER-21 APPLIES

QUANTITY ORDERED	DESCRIPTION	SPECIFICATIONS	UNIT PRICE	QTY. REC'D.	QTY. B/O	CAS/CUSTOMER	SHIP/ORDER NO.
5	Z-TESTING TESTING POA P/S 2527-2 NSP	PERFORM 5 CHEMISTRY TEST ***** 5 PCS 5/16-18 HVY HEX NUT ASTM A194 2H-HEAT CODE"IZJ" *****	20.00 EACH				
5	Z-TESTING TESTING POA P/S 2527-2 NSP	PERFORM 5 HARDNESS TEST ***** 5 PCS 5/16-18 HVY HEX NUT ASTM A194 2H-HEAT CODE"IZJ" *****	5.00 EACH				
5	Z-TESTING TESTING POA P/S 2527-2 NSP	PERFORM 5 PROOFLoad TEST ***** 5 PCS 5/16-18 HVY HEX NUT ASTM A194 24-HEAT CODE"IZJ" *****	10.00 EACH				
1	Z-HEAT TREATING HEAT TREATING POA P/S 2527-2 NSP		121.00 LOT				
5	Z-TESTING TESTING POA P/S 2527-2	PERFORM 5 24 HOUR HARDNESS TEST HEAT TREAT COST ON ITEM NO. 4 *****	5.00 EACH				

ACCEPTED
SEP 7 1988
RWT
NUCLEAR APPROVED

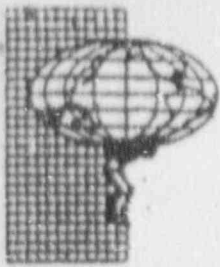
Lot	LOT QUANTITY	SAMPLE	RECEIVING AND INSPECTION REPORT		HEAT NUMBER	DETS RECEIVED
			ACCEPTED	REJECTED		
1	5	5-5065	5	0	IZJ	Yes
2	5		0	0		
3	5		0	0		
4	5		0	0		
5	5		0	0		
6						
7						
8						
9						
10						

INSTRUCTIONS TO SELLER

Buyer, by acknowledging or performing the order, accepts the terms and conditions appearing on the face and reverse side hereof and agrees to comply with the instructions.
Purchase order number must appear on all packages, bills of lading, and invoices.
Include packing slip in all shipments and documents.
Purchase order price must agree with invoice price or invoice agreed to be processed, unless our purchase order indicates an alternate.

RECEIVED & INSPECTED BY: *[Signature]* 9/5/88
VERIFIED BY: *[Signature]*
ORDERED BY: *[Signature]*
CERTIFICATIONS REQUIRED WITH ALL SHIPMENTS
O.A. APPROVAL BY: *[Signature]* DATE: 8-26-88

(CONTINUED ON REVERSE SIDE)



ATLAS TESTING LABORATORIES, INC.

A SUBSIDIARY OF ANALYSTS, INC.

6929 E. SLAUSON AVE. • COMMERCE, CA 90040 • (213) 722-8810

CHEMISTS — METALLURGISTS — ENGINEERS

BY
IN ACCOUNT WITH

A&G ENGINEERING II, INC.
4640 EAST LA PALMA AVENUE
ANAHEIM, CA 92807-1992

Note: Tested in accordance with our C.C. Manual dated March 1983 and Atlas Testing Procedure UT-4000 Rev. 1 dated January 1987, surveyed and audited by A&G Engineering January 1988.

DATE	9/2/88	CUSTOMER ORDER NO.	4729	CUSTOMER SHIPPER NO.	
LABORATORY NO.	13743-2	IDENTIFIED	5/16 -18 Hvy. Hex Nut	PART NO.	
MATERIAL	Carbon Steel		Heat Code "IZJ"	SPECIFICATION	ASTM-A194 Gr. 2H

PROOF LOAD TEST: (Using threaded mandrel)

Five (5) nuts - Proof loaded @ 9,170 pounds in tension.

HEAT TREAT:

Heat treated @ 1000°F for 24 hours, air cooled

HARDNESS TEST:

COMPLETED NUTS:

HARDNESS AFTER 24 HOUR HEAT TREAT @ 1000°F:

S/N	ROCKWELL HARDNESS
1	RC/27.0
2	RC/26.0
3	RC/27.0
4	RC/25.0
5	RC/26.0

ACCEPTED
SEP 7 1988
RWT
NUCLEAR APPROVED

ROCKWELL HARDNESS
RB/102
RB/99
RB/100
RB/101
RB/100

Maximum Requirement: RC/38.0
Minimum Requirement: RC/24.0

RB/89.0

REMARKS: Conforms to requirements.

SUBSCRIBED AND SWORN TO BEFORE ME THIS
DAY OF _____ 19____

NOTARY PUBLIC
IN AND FOR THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA



RESPECTFULLY SUBMITTED

[Signature]
H. Leo Norton/Gen. Mgr.
ATLAS TESTING LABORATORIES, INC.

ATLAS TESTING LABORATORIES, INC.

A SUBSIDIARY OF ANALYSTS, INC.

6929 E. SLAUSON AVE. • COMMERCE, CA 90040 • (313) 722-8810

CHEMISTS — METALLURGISTS — ENGINEERS



BT
IN ACCOUNT WITH

A&G ENGINEERING II, INC.
4640 EAST LA PALMA AVENUE
ANAHEIM, CA 92807-1992

NOTE: Tested in accordance with our O.C. Manual dated March 1983 and
Atlas Testing Procedure D4-4000 Rev. 1 dated January 1987, sur-
veyed and audited by A&G Engineering January 1988.

DATE 9/2/88 CUSTOMER ORDER NO. 4729 CUSTOMER SHIPPER NO.
LABORATORY NO. 13743-1 IDENTIFIED 5/16 -18 HVY. HEX NUT PART NO.
MATERIAL CARBON STEEL HEAT CODE "IZJ" SPECIFICATION ASTM-A194 GR.2H

	<u>#1</u>	<u>#2</u>	<u>#3</u>	<u>#4</u>	<u>#5</u>
Carbon	0.43%	0.43%	0.44%	0.44%	0.44%
Manganese	0.80	0.80	0.81	0.79	0.79
Phosphorus	0.019	0.020	0.020	0.020	0.019
Sulfur	0.016	0.016	0.016	0.017	0.018
Silicon	0.26	0.26	0.24	0.24	0.25
Chromium	0.02	0.02	0.02	0.02	0.02
Nickel	0.03	0.03	0.03	0.03	0.03
Molybdenum	0.01	0.01	0.01	0.01	0.01
Copper	*0.01	*0.01	*0.01	*0.01	*0.01
Iron	Remainder	Remainder	Remainder	Remainder	Remainder

*Less than

ACCEPTED

SEP 7 1988

RWT
NUCLEAR APPROVED

REMARKS: Conforms to requirements.

SUBSCRIBED AND SWORN TO BEFORE ME THIS
DAY OF _____ 19____

NOTARY PUBLIC



RESPECTFULLY SUBMITTED

H. Leo Norton/Gen. Mgr.
ATLAS TESTING LABORATORIES, INC.

A & G ENGINEERING II, INC

NUCLEAR REPORT OF PHYSICAL AND CHEMICAL TESTS AND CERTIFICATION OF COMPLIANCE

CUSTOMER: WASHINGTON PUBLIC POWER SERVICE
 PARTS MARKED: NCA 3866 6
 CUSTOMER P.O. NO.: 098608
 A & G PACKING LIST NO.: 02997
 PREPARED BY: DATE 2/7/89

REVISED REPORT DATED 2/7/89
 REPORT NO.: 2897AH
 SPECIFICATIONS: ASME SA194 GR 2H
 SECT II & III, CODE YEAR 1986
 CODE CLASS NO 1, THRU WINTER
 ADDENDA YEAR 1987
 10 CFR 50 APP. B, 10 CFR 21 APP.
 CUST SPEC 10413 REV 1

Item No.	Description	Mat'l	Qty	No. Pcs. Tested	Hardness After 24 Hrs. @	Ultimate Tensile	Proof Yield	Elong %	RA	Hardness	Heat Treat Data
1	1/2-16-1B UNC(2B) HVY HEX NUT ASME SA194 GR 2H	1045	200	1	102 RB	9170 LBS			127 RC		1900 DEG F 4 HRS TEMPERING TEMP

Item No.	VESTRAL INSP No.	SA 514 RU Test (Accept/ Rej)	Heat No.	Heat Code	C	Mn	Si	S	P	Cr	Ni	Mo	V					
1	200	200	10	F4X27Y	11ZJ	1.40	.73	.23	.018	.021								
				OVERCHECK		.43	.80	.26	.016	.019								

CHARPY IMPACT TEST RESULTS TYPE "A" V-NOTCH METHODS A370 10X10MM SPEC. #AS TEST TEMP
 ORIENTATION AND LOCATION: Specimen taken with the longitudinal axis of the specimen located at least one-half radius or 1 inch below the surface plus the machining allowance per side, whichever is less. Fracture plane of the specimen at least one diameter or thickness from the heat treated end.

Item No.	HEAT CODE	TEST TEMP	FOOT LBS	SHEAR %	% LATERAL EXPANSION

MATERIAL MANUFACTURED/SUPPLIED IN ACCORDANCE WITH WASHINGTON PUBLIC POWER SUPPLY PSM 098608 A&G CJC# 455 EXPIRES JUNE 11, 1991

We certify that the contents of this report are correct and accurate and that all test results and operations were in compliance with requirements of the material specifications and specific requirements of section III paragraphs designated by the purchaser.

John Thalasinis
 John Thalasinis, G.A. Mgr.
 Dan M. Devitt, Assistant G.A. Mgr.
 Will Don Cook, G.C. Mgr.

1.07 PACKAGING AND SHIPPING

Each package of each line item shall be tagged or marked for shipment with the following:

- o Supply System Purchase Order Number
- o Supply System Purchase Order Item Number

When the above markings are not possible provisions must be made to physically identify items by some other means, as approved by the Buyer prior to shipment.

The items being provided under this specification shall be stored, packaged and shipped per level C requirements of Reference F. Level B cleanliness requirements of Reference E shall be observed at all times.

1.08 RECEIVING INSPECTION (For Supply System Internal Use Only)

A. Nuts procured to this specification shall meet the requirements of Paragraph 1.07, above.

B. Supply System QA Procedure PQC-09 shall be used.

C. Product Marking

1. All nuts shall bear the manufacturer's identification mark, and shall be traceable to the CMTR or to the Certificate of Compliance.

2. All nuts shall be legibly stamped to indicate the grade and process of manufacture identified on the CMTR or Certificate of Compliance.

3. Grades 2H and 7 may be stamped "2HB" or "7B", respectively (indicating that they were machined from bar stock), as required by the Code.

D. By review of the supplied documentation it shall be determined that all chemical, physical, examination, and other required information is in conformance with this specification and the applicable ASME references for 1971 Edition through Winter 1973 Addenda.

(Note: This requires that ASME material supplied to a later code edition be reviewed to the edition stated above and green tagged as such at the time of receiving. If the material does not comply with the 1971 Edition with addenda through the Winter 1973 Addenda, a reconciliation by Generation Engineering is required.)

ORIGINAL

A&G ENGINEERING
EXHIBIT 7
Page 3 of 4

NRC



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

**PROBLEM EVALUATION
REQUEST**

PPM 1.3.12

PTL NO.

PER NO.

289-047

ORIGINATOR

PLANT PROBLEM DESCRIPTION

On Purchase Order 98608 (issued to A & G Engineering) the Supply System ordered 200 Heavy Hex nuts, described as follows:
5/16"-18, SA194, Grade 2H, Class 2B, carbon steel, ASME III Class 1, 1971 Edition thru Winter 1973 or later in accordance with specification 10413, Rev. 1.

The nuts were received on 12-29-88 with Material Test Report No. 2897A for heat code 1ZJ. The Manufacture markings indicated 5 (five) were from A & G Engineering and 195 (one hundred-ninety-five) were marked with a "U" (a different manufacturer). A & G Engineering was contacted and all nuts were returned. The shipping date was 12-30-88.

Another shipment was received and inspected on 1-24-89, with the same MTR that was received with the first shipment (Report No. 2897A). It appeared that the same nuts were returned with the original markings removed by an abrasive means and new markings (Manufacturers mark and

CONTINUATION SHEETS YES NO

TECH. SPEC./PROCEDURE/REGULATION/ETC. <i>EXPLAINED IN PLANT PROBLEM DESCRIPTION</i>		ORIGINATOR NAME (PRINT) D. F. Miller, PQAE	
MEL EPN	CONTINUATION SHEET. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	ORIGINATOR SIGNATURE/DATE <i>D. F. Miller</i> 1-25-89	
MEL SYSTEM NO.	MEL MANUFACTURER CODE	VALIDATION SIGNATURE/DATE <i>S. K. Woolley</i> 1-25-89	
SHIFT MANAGER			
DISCOVERY DATE/TIME 1/04/89	EVENT DATE/TIME 1/24/89	PLANT MODE 1	% POWER 100
<input type="checkbox"/> NON REPORTABLE <input checked="" type="checkbox"/> POTENTIALLY REPORTABLE <input type="checkbox"/> REPORTABLE	REQUIREMENT 10CFR 21 OTHER _____	POC IMM. DISPOSITION <input type="checkbox"/> YES APPROVAL REQUEST <input checked="" type="checkbox"/> NO	
TECH. SPEC. VIOLATION <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO LOD ENTERED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO TS NO. _____	VITAL MWR <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO VITAL MWR NO. _____	SHIFT MANAGER/DATE <i>D. F. Miller</i> 1/25/89	

MANAGEMENT REVIEW COMMITTEE

COMMENTS
 1) Carl King to investigate bolts
 2) Contact SS Legal - A.G. Hester
 3) via vce. evaluate potential Part 21
 4) Evaluate our use of A&G Material Woolley

PROBLEM RESOLUTION METHOD

- | | | | | |
|---|-------------------------------|------------------------------|-------------------------------|--|
| <input checked="" type="checkbox"/> NCR | <input type="checkbox"/> MWR | <input type="checkbox"/> PDF | <input type="checkbox"/> ROR | <input type="checkbox"/> NONE REQUIRED CLOSE PER |
| <input type="checkbox"/> PDR | <input type="checkbox"/> TER | <input type="checkbox"/> PRF | <input type="checkbox"/> ISCR | <input type="checkbox"/> PTL ENTRY |
| <input type="checkbox"/> MDR | <input type="checkbox"/> RFTS | <input type="checkbox"/> IOM | <input type="checkbox"/> SON | <input type="checkbox"/> OTHER (LIST) |

RESPONSIBLE DEPARTMENT/ORGANIZATION *QA / Worker* ACTION DUE DATE *1/30/89*

INDUSTRIAL SAFETY/RISK ASSESSMENT REQUIRED YES NO RXSU REVIEW REQUIRED YES NO

PLANT MGR SIGNATURE/DATE *D. Baker* 1/26/89 IMPLEMENTING DOC. NO. OR PTL NO.

CLOSEOUT REVIEW SIGNATURE/DATE _____ PER CLOSURE DATE _____

Continuation sheet

PROBLEM EVALUATION
REQUEST

grade) were stamped on the nuts. Indication of the previous stampings appear on 44 (forty-four) nuts. these indications include whole and partial markings ("U" and 2-H).

The above indicates intentional fraudulent practice.

A & G ENGINEERING CO. II, INC.

MANUFACTURING
FERROUS - NON FERROUS FASTENERS
4640 E. LA PALMA AVE.
ANAHEIM, CALIFORNIA 92807
714/779-4100 FAX 714/779-2245

Procedure No. 114
Subject: Non Code Safety
related material

QUALITY ASSURANCE PROGRAM

I. PURPOSE:

To provide a procedure and guide line for the procurement of materials which are Non Code Items.

II. SCOPE:

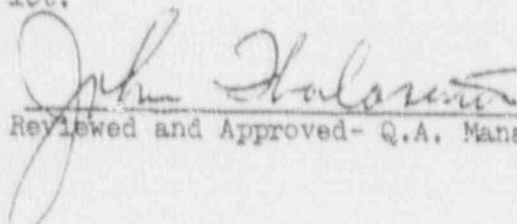
All materials which are purchased from A&G Engineering under A&G Q.A. Program, which are not ASME Code approved materials, or have been purchased without direct reference to ASME Boiler and Pressure Vessel Code.

III. OBJECTIVE:

To assure that material is being supplied which is in compliance with reference material specifications, and purchase order requirements.

IV. PROCEDURE:

- A) A&G Purchasing Dept. may purchase material from A&G Engineering Approved Vendor List, in which case no further verification is required.
- B) 10 CFR 21 conditions will be passed to lower tier Vendors on the A&G Purchase Order when applicable.
- C) A&G Engineering will perform chemical and physical Overchecks of each lot of material on a random sampling basis, to assure that the material meets the requirements of the material specification. The lot sample will represent the entire lot of material as received and identified, and the acceptance of the lot will be governed by the acceptance of the lot sample. The failure of the lot test sample will reject the lot, and the lot will be returned to the Vendor.
- D) When sufficient Vendor history and performance data is available, paragraph C above will be performed on a random lot sample rather than on each lot.

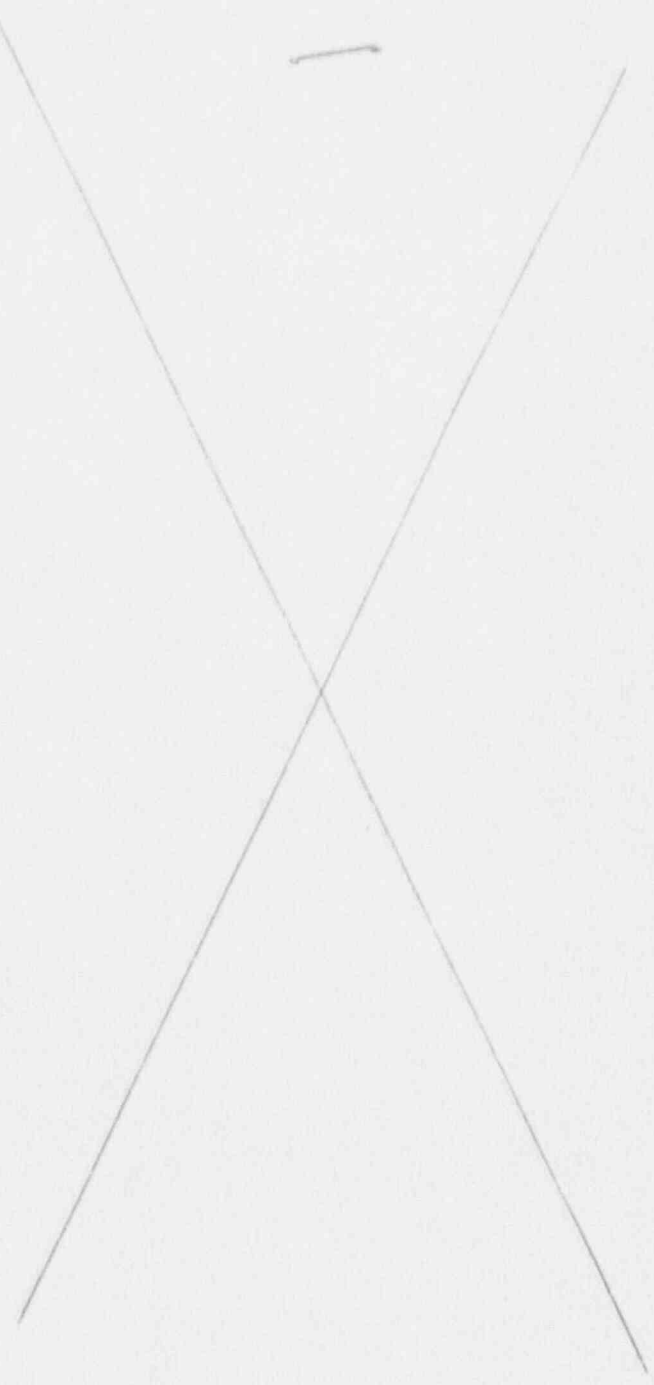

Reviewed and Approved - Q.A. Manager

Date 12-4-86

NUCLEAR HEAT IDENTIFICATION LOG

CODE	HEAT NO.	VENDOR NAME	A&G P.O. NO.	CUSTOMER'S NAME	CUSTOMER'S P.O.	DATE	ASSIGNEE'S SIGT.
IZA	8L16486	HAMAOKA	144P 9262	A+G - SE - Engineering	N/A	7-18-88	Joe 5/13/88 ZAMBA
IZB	57199	Approved Steel	13162	A+G - SE	N/A	8-1-88	Paul 1/8/88 Ed Coll
IZC	57342	"	"	"	"	"	"
IZD	82271	"	"	"	"	"	"
IZE	82342	"	"	"	"	"	"
IZF	95071	"	"	"	"	"	"
IZG	X494B	"	"	"	"	"	"
IZH	6935880	"	"	"	"	"	"
IZI	81865	Gippenstedt	13162	A+G - SE	N/A	8-17-88	Joe 2/12/88 4NR
IZJ	D4X279	Uchiyama	144P 9262	A+G - SE	N/A	8-18-88	Joe 5/16-18-24 Mody
IZK	8E2030	Remcon	154682	CPD. / 62571	4707-2-25	8-18-88	Joe 3/6/88 3045.5
IZL	A57795	"	"	"	"	"	"
IZM	Y840195	"	"	"	"	"	"
IZN	167095	"	"	"	"	"	"
IZO	Y751637	"	"	"	"	"	"
IZP	16108	"	"	"	"	"	"
IZQ	77459	"	"	"	"	"	"
IZR	A18912	"	"	"	"	"	"
IZS	A17718	"	"	"	"	"	"
IZT	Lot 100582	"	"	"	"	"	"
IZU	293	"	"	"	"	"	"
IZV	294	"	"	"	"	"	"
IZW	6784182	"	"	"	"	"	"
IZX	93775	"	"	"	"	"	"
IZY	V750256	"	"	"	"	"	"
IZZ	10177	"	"	"	"	"	"

3/8 204
12-344



01-16-89

MANUFACTURING TRAVELLER

PAGE

A & G ENGINEERING II, INC

NUCLEAR

A&G STOCK: NO
 A&G MANUF: YES
 A&G P/L #: 02951/001
 ORDER QTY: 200 EACH
 CUSTOMER: WASHINGTON PUBLIC POWER SUPPLY
 CUST P/O: 098608

PREPARED BY: Ja 1-16
 MFG PLANNING BY: Ja 1-16
 Q/A PLANNING BY: Ja 1-16
 DATE ISSUED: 1-16

DUE DATE: 01-16-89
 BUY-OUT:

BIN-LOCAT: QTY IN STK: 2720-

MATERIAL TO BE MANUFACTURED OR BOUGHT OUT

MATERIAL	QTY ORD
NUTHH2HO. 312-18N	200
5/16-18 UNC2B HVY HEX NUT	EACH
ASME SA194 2H	

MANUFACTURING INSTRUCTIONS

 REPLACEMENT FOR 02897

 1. FACING/A&G

ALL PARTS TO HAVE SAME MFG'S
 SYMBOL (-)
 INSPECT BEFORE SHIPPING

2. STAMPING--A&G TO RE-STAMP
 OVER U

INSIDE AND OUTSIDE PROCESSING REQUIREMENTS

MATERIAL	QTY REQ	VENDOR / A&G P/O NO.	HEAT CD / HEAT ID NO.
NUTHH2HO. 312-18N	200	Hyport 804 / 7399	I2J 04X279
5/16-18 UNC2B HVY HEX NUT	EACH	Uchimoto	
ASME SA194 2H			

FACING
 STAMPING

RUSH



A & G ENGINEERING II, INC.

4640 E. LA PALMA AVE. • ANAHEIM, CA 92807-1992 • (714) 779-4100
 FAX: (714) 779-2245

**** NUCLEAR ****

UPS SHIPPER NUMBER
CA 979-422

FROM: A&G ENGINEERING II, INC.
 4640 E. LA PALMA AVE.
 ANAHEIM, CA 92807-1992

PAGE 1
 SALES ORDER NO
02951
 SALES ORDER DATE
01-16-89

1WAS269
 WASHINGTON PUBLIC POWER SUPPLY
 P. O. BOX 968
 RICHLAND, WA 99352

WASHINGTON PUBLIC POWER SUPPLY
 WNP-2 OPS WHS COMPLEX WHS #1
 NORTH POWER PLANT LOOP
 RICHLAND, WA 99352

FRGHT TRMS: PREPAID P.O. NO: 098608

BOX _____ of _____

PURCHASE ORDER NO.	BUYER	TERMS	SALESPERSON	TERRITORY	SHIPPED VIA	DATE DUE	F.O.B.	TAX	SALES ORDER NO.
098608	IDNA	NET 30	DHOUSE	WA	UPS	01-16-89	ANAHEIM		N 02951

ITEM NO.	QUANTITY			A&G PART NO. DESCRIPTION	SPECIAL INSTRUCTIONS	NO. OF CARTONS	A&G CAT.
	ORDERED	SHIPPED	BACK ORDERED				
301	200 EACH	200	0	***** REPLACEMENT FOR 02897 ***** NUTHH2H0. 312-18N 5/16-18 UNC2B HVY HEX NUT ASME SA194 2H HT CODE IZS	A&G ENGINEERING NRC EXHIBIT 9 Page 3 of 3	1Bx.	5#
PHYSICALS/CHEMICALS <input checked="" type="checkbox"/> ACTUAL MILL TEST REPORTS: N CERTIFICATES OF CONFORMANCE: N THANK YOU FOR YOUR ORDER, ALISON SIEDLER NCA 3800 SEC. III CODE YR 86 CODE CLASS 1 NB THRU SUMMER OR WINTER ADDENDA YR 87 10 CFR 50 APPENDIX "B" NA 10 CFR 21 APPLIES X HEAT CODE TRACEABILITY APPLIES TO ALL ITEMS NA OR ITEM NA THRU NA CUSTOMER SPECIFICATION NO. 10413 REV. 1 DATE NA CERTS OF CONFORMANCE REQUIRED ON ALL ITEMS X OR ITEM 1 THRU 1 PHYSICALS & CHEMICAL TEST REQUIRED ALL ITEMS X OR ITEM 1 THRU 1 CHARPY IMPACT TEST REQUIRED ALL ITEMS NA OR ITEM NA THRU NA WHAT IS THE CHARPY IMPACT TEST TEMPERATURE REQUIRED NA DOMESTIC MATERIAL REQUIRED: YES . NO X							

TOTAL NO. OF PIECES	TOTAL WEIGHT	FREIGHT CHARGES	DATE SHIPPED	CERTIFICATIONS AND MATERIAL RECEIVED BY	FILLED BY	INSPECTED BY
1Bx.	5#	\$2.46	1-17-89		Jucey	Jucey

ALL CLAIMS FOR ERROR, SHORTAGE, OR DAMAGE MUST BE MADE WITHIN 7 DAYS AFTER RECEIPT OF GOODS. OUR LIABILITY IS LIMITED TO REPLACING THE MATERIAL OR REFUNDING THE INVOICE VALUE OF THE MATERIAL SOLD. MATERIAL MAY NOT BE RETURNED WITHOUT A "RETURN MATERIAL AUTHORIZATION" NUMBER FROM A&G ENGINEERING II, INC.

THIS PACKAGE MAY CONTAIN A MIXTURE OF DOMESTIC ARTICLES AND ARTICLES FROM ONE OR MORE FOREIGN COUNTRIES, INCLUDING THE FOLLOWING: JAPAN, TAIWAN, KOREA, CHINA, CANADA, ITALY, HOLLAND & FINLAND.

CERTIFICATE OF CONFORMANCE
 MATERIAL MANUFACTURED AND SUPPLIED IN ACCORDANCE WITH ABOVE PURCHASE ORDER AND THE PRODUCTS MANUFACTURED BY A&G ENGINEERING II, INC., CONFORMS AND COMPLIES WITH SPECIFICATIONS.

FROM: A&G ENGINEERING II, INC. 4640 E. LA PALMA AVE. ANAHEIM, CA 92807-1992

PACKING LIST/VERIFICATION COPY

ASSISTANT Q.A. MANAGER

Don McDevitt

A & G ENGINEERING II, INC.

MANUFACTURING
FERROUS - NON FERROUS FASTENERS
4640 E. LA PALMA AVE.
ANAHEIM, CALIFORNIA 92807
714/779-4100 FAX 714/779-2245

June 5, 1989

Washington Public Power
P.O. Box 968
Richland, Washington 99352

ATTENTION: Mr. Gary Wolley

Re: P.O. # 098608
Item 1

As per our last phone conversation this is your authority to return the material furnished on item 1 which was shipped to you 1-17-89


During the recent audit by NRC Personnel it was determined that this material did not fully comply with all of the requirements of your Purchase order for NB 1 material, as defined by current code interpretations. NRC Personnel indicated that the material was fully acceptable under any interpretation of 10 CFR 21 or 10 CFR 50 Appen B.

This discovery concerns only an isolated instance and is not any indication of a generic condition, and is not reportable under 10 CFR 21.

We regret the inconvenience caused by this return request, and we will replace the material at no charge to you.

If there should be further questions will you please advise

Sincerely



John Thalasinco
Q.A. Manager

CORRECTIVE ACTION REQUEST		DATE OF REQUEST 5-19-89	REQUEST NO. 5-19-89
I TO: PURCHASING/ORDER ENTRY		REPLY DUE DATE 5-19-89	
II Part No. N/A	Rev N/A	OPERATION PURCHASING FROM NON CODE VENDORS	
Problem	Description	NONCONFORMING MATERIAL REPORT NO. 289-047	
<p>5/16-18 UNC(2A) Hvy Hex Nuts , ASTM A194 Gr. 2H , Purchased from Uchimote under the Procedure III-I-83-146 as an interpretation of NX 2610, which would allow the purchase of materials without the further necessity of up-grading as would be allowed by the code. This practice applied to the single order of 5/16 nuts cannot be allowed under the terms of the NRC decision and the limitations placed by the N type Certificate holder. Future orders must be placed and processed in accordance with the ASME Program and the procedures.</p>			
QA Manager John Thalasinis	Signature <i>John Thalasinis</i>	Date 5-19-89	
III Cause of Problem			
Mis Interpretation of Interpretation III-I-83-146 and NX 2610			
Corrective Action Plan		Target Date	
Future Orders not to be placed under Interpretation III-I-83-146		5-19-89	
Responsible Mgr. John Thalasinis		Signature <i>John Thalasinis</i>	Date 5-19-89
IV Review of Proposed Plan			
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved Reason			
QA Manager John Thalasinis	Signature <i>John Thalasinis</i>	Date 5-19-89	
V Corrective Action Completed		Date 5-19-89	
Signature Responsible Manager <i>John Thalasinis</i>		Date 5-19-89	
VI Verification of Implemented Corrective Action			
Next activity/order		<input checked="" type="checkbox"/> Acceptable <input type="checkbox"/> Rejected	
QA Manager John Thalasinis	Signature <i>John Thalasinis</i>	Date 5-19-89	

ervation of material to prevent damage or deterioration.

NCA-3866.6 Identification and Marking of Material Produced. Measures shall be established for controlling and identifying material throughout the manufacturing processes and during shipment.

(a) Identification of Completed Material

(1) The identification of completed material shall consist of marking the material with the applicable specification and grade of material, heat number or heat code of the material, and any additional marking required by this Section to facilitate traceability of the reports of the results of all tests and examinations performed on the material; except that, for those materials for which the Material Manufacturer's Certificates of Compliance are allowed, heat-number identification need not be indicated either on the material or the Certificates. Alternatively, a marking symbol or code may be used which identifies the material with the material certification, and such symbol or code shall be explained in the Certified Material Test Report or Certificate of Compliance as applicable. When special requirements or provisions of this Section conflict with the requirements of permitted material specifications, the material specification and grade number shall be followed by an "*" to indicate the material specification has been modified as shown on the material certification. All requirements of the material specification shall be met except where specifically exempted or superseded by a provision of this Section. For nonferrous materials manufactured in accordance with material specifications which do not provide for heat identification, the material shall be marked with a symbol or code that identifies the lot, as defined in the material specification, with the Certified Material Test Report (NCA-3867.4) for the material. Where the requirements of NCA-3867.4 conflict with those of the material specification, the material test report shall comply with NCA-3867.4.

(2) Method of Marking. Materials shall be marked by any method acceptable to the purchaser which will not result in any harmful contamination or sharp discontinuities and will identify the material in accordance with the material specification. Stamping, when used, shall be done with blunt-nosed continuous or blunt-nosed interrupted dot die stamps.

(3) Transfer of Marking When Material Is Divided. The identification marking shall be transferred to all pieces when material is divided.

(4) Marking Requirements for Small Products. Except as required by the material specification, bolts and nuts 1 in. nominal diameter and smaller and other

products where the largest space available for marking is less than 1 in. in any direction need not be individually marked, provided they are packed in packages or containers which shall be clearly identified by legible marking to ensure positive identification of the material. The markings on the containers shall identify the material with the Material Manufacturer's Certificate of Compliance or Certified Material Test Report, as applicable.

(b) Welding and Brazing Materials Identification. Welding and brazing materials shall be clearly identified by legible marking on the package or container to ensure positive identification of the material. The marking shall include the heat or lot number as applicable, a control marking code which identifies the materials with the Certified Material Test Report, and other information such as specification, grade and classification number, supplier's name, and trade designation.

NCA-3867 Examinations, Tests, and Reports

NCA-3867.1 Establishment of Examinations and Tests. In-process and final examinations and tests shall be established to assure conformance with the specifications and this Section.

NCA-3867.2 Records of Examinations and Tests. All characteristics required to be reported by the material specifications and by this Section shall be verified and the results recorded. Records shall be traceable to procedure and revision to which an examination or test is to be performed, with space provided for recording results of examinations and tests. Measures shall be established so that the status and results of any required examinations and tests can be determined for the material at any time.

NCA-3867.3 Nonconforming Material. In order to prevent the inadvertent use of material which does not conform, adequate control measures shall be established to preclude nonconformance with the requirements of this Section. Nonconforming material shall be identified and reviewed for acceptance, rejection, or repair in accordance with documented procedures. The responsibility and authority for the disposition of nonconforming material shall be defined. Repaired material shall be reexamined in accordance with applicable procedures. Measures which control further processing of nonconforming or defective material, pending a decision on its disposition, shall be established and maintained.

FROM: A & G ENGINEERING CO. II INC.
 4640 E. La Palma Avenue
 Anaheim, California 92806
 Phone 714-779-4100

SHIP TO: Washington Public Power Supply
 WWP-2 OPS WHS COMPLEX WHS #1
 NORTH POWER PLANT LOOP
 RICHLAND, WA 99352
 P.O. # 098608.

Quantity 200 PCS (199) ITEM # 001

Description 5/16-18 UNCFB HX HX NUT
 ASME SA194 GR. 2H.
 HT CODE "IZJ"

ARTICLE NB-4000

FABRICATION AND INSTALLATION

NB-4100 GENERAL REQUIREMENTS

NB-4110 INTRODUCTION

Components, parts, and appurtenances shall be fabricated and installed in accordance with the requirements of this Article and shall be manufactured from materials which meet the requirements of NB-2000.

NB-4120 CERTIFICATION OF MATERIALS AND FABRICATION BY CERTIFICATE HOLDER

NB-4121 Means of Certification

The Certificate Holder for an item shall certify, by application of the appropriate Code Symbol and completion of the appropriate Data Report in accordance with NCA-8000, that the materials used comply with the requirements of NB-2000 and that the fabrication or installation complies with the requirements of this Article.

NB-4121.1 Certification of Treatments, Tests, and Examinations. If the Certificate Holder or Subcontractor performs treatments, tests, repairs, or examinations required by other Articles of this Subsection, the Certificate Holder shall certify that this requirement has been fulfilled (NCA-3867.4). Reports of all required treatments and of the results of all required tests, repairs, and examinations performed shall be available to the Inspector.

NB-4121.2 Repetition of Tensile or Impact Tests. If during the fabrication or installation of the item the material is subjected to heat treatment that has not been covered by treatment of the test coupons (NB-2200) and that may reduce either tensile or impact properties below the required values, the tensile and impact tests shall be repeated by the Certificate Holder on test specimens taken from test coupons which have

been taken and treated in accordance with the requirements of NB-2000.

NB-4121.3 Repetition of Surface Examination After Machining. If, during the fabrication or installation of an item, materials for pressure containing parts are machined, then the Certificate Holder shall re-examine the surface of the material in accordance with NB-2500 when:

(a) the surface was required to be examined by the magnetic particle or liquid penetrant method in accordance with NB-2500; and

(b) the amount of material removed from the surface exceeds the lesser of $\frac{1}{8}$ in. or 10% of the minimum required thickness of the part.

NB-4122 Material Identification

Material for pressure retaining parts shall carry identification markings which will remain distinguishable until the component is assembled or installed. If the original identification markings are cut off or the material is divided, the marks shall either be transferred to the parts cut or a coded marking shall be used to ensure identification of each piece of material during subsequent fabrication or installation. In either case, an as-built sketch or a tabulation of materials shall be made identifying each piece of material with the Certified Material Test Report, where applicable, and the coded marking. For studs, bolts, nuts, and heat exchanger tubes it is permissible to identify the Certified Material Test Reports for material in each component in lieu of identifying each piece of material with the Certified Material Test Report and the coded marking. Material supplied with a Certificate of Compliance, and welding and brazing material, shall be identified and controlled so that they can be traced to each component or installation of a piping system, or else a control procedure shall be employed which ensures that the specified material is used.

A & G ENGINEERING II, INC.MANUFACTURING
FERROUS - NON FERROUS FASTENERS4640 E. LA PALMA AVE.
ANAHEIM, CALIFORNIA 92807
714/779-4100 FAX 714/779-2245

June 5, 1989

Mr. Jim Holbrook, Procurement Engineering
Sacramento Municipal Utilities District - Rancho Seco
14440 Twins City Road
Herold, California 95636

Dear Mr. Holbrook

Re: P.O. # HQ88-30-39025 Item 2
A&G P.S. 02797

As per our phone conversation this is your authority to return the material furnished on item 2 which was shipped to you on 11-22-88.

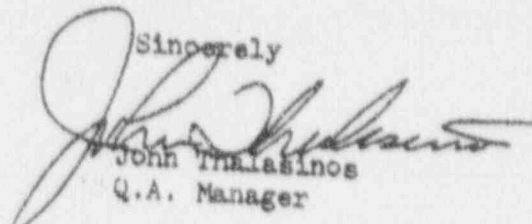
During a recent audit by NRC Personnel it was determined that this material did not fully comply with all of the requirements of your purchase order for NB 1 material, as defined by current code interpretations. NRC Personnel indicated that the material was fully acceptable under any interpretation of 10 CFR 21 or 10 CFR 50 Appen B.

This discovery was concerning an isolated instance and is not indicating a generic condition, and is not reportable under 10 CFR 21.

We regret the inconvenience caused by this return request, and we will replace the material at no charge to you.

If There should be further questions will you please advise.

Sincerely


John Thalasinis
Q.A. Manager

A&G ENGINEERING NRC EXHIBIT 15
PAGE 2 Of 2
NONCONFORMING MATERIAL REPORT

NMR NO. 6-5-89

Part Number <p style="text-align: center;">N/A</p>	Rev. <p style="text-align: center;">N/A</p>	Heat Identification Code <p style="text-align: center;">IZJ</p>	Date <p style="text-align: center;">6-5-89</p>
Part Name 5/16-18 UNC(2B) Hvy Hex Nuts		Operation Rejected At Receiving Inspection	Rejected By Jim Holbrook
Quantity	Defect		
500	5/16-18 UNC(2B) Hvy Hex Nuts - ASME SA 194 Gr. 2H Section III Code Year 1977 Code Class 1NB Thru Summer 1978. Material did not meet all of the requirements of the code. Marking of the nuts not acceptable.		

DIRECTED DISPOSITION

Responsibility	Scrap	Rework	Use As Is	Sort	Return To Vendor
A&G	Scrap				
VENDOR					

Approvals	<i>John Holbrook</i>	6-5-89	
Rework Instructions - Responsibility	N/A		Target Date
Rework Inspection Instructions - Responsibility	N/A		Target Date
Rework Traveler Reference	N/A		
Manufacturing Manager	N/A	Date	Production Manager
Design Engineering Manager	N/A	Date	Q.A. Manager
			<i>John Holbrook</i>
			6-5-89

VERIFICATION OF ACTUAL DISPOSITION

VERIFIED Scrap *J.H.*

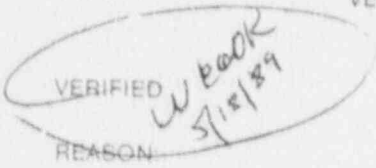
UNACCEPTABLE

REASON:

Q.A. Manager	<i>John Holbrook</i>	Date	8-8-89
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NONCONFORMING MATERIAL REPORT

NMR NO. 5-18-89

Part Number N/A	Rev. N/A	Heat Identification Code IZJ	Date 5-18-89
Part Name 5/16-18 UNC (2B) Hvy Hex Nut	Operation Rejected At WPPS Receiving		Rejected By Inspector
Quantity	Defect and Part Description		
200 Pcs	5/16-18 UNC(2B) Hvy Hex Nut		
	ASME SA 194 2H		
	NCA 3800 Sec.II and III Code Year 1986		
	Code Class NB 1 Thru Year 1987		
	Cust Spec 10413 Rev. 1		
	A&G Manufacturers Mark Superimposed over Uchimoto Mark		
	Manufacturing traceability , Heat Code Traceability Lost.		
	Material Not Upgraded per Section. III		
DIRECTED DISPOSITION			
	Responsibility	Scrap	Rework Use As Is Sort Return To Vendor
A&G		Scrap the Nuts	
VENDOR			
Approvals	<i>John Thulson</i> 5-18-89		
Scrap	Instructions - Responsibility W.R. Cook		Target Date 5-18-89
Rework	Inspection Instructions - Responsibility		Target Date
Rework Traveler Reference	Recorded on Traveler		
Manufacturing Manager <i>W. Cook</i> 30	Date 5-18-89	Production Manager N/A	Date
Design Engineering Manager N/A	Date	QA Manager <i>John Thulson</i>	Date 5-18-89
VERIFICATION OF ACTUAL DISPOSITION			
		UNACCEPTABLE	
Q.A. Manager <i>John Thulson</i>	Date 5-18-89		

NONCONFORMING MATERIAL REPORT

NMR NO. 12-3-90

Part Number N/A	Rev. N/A	Heat Identification Code IZJ	Date 12-3-90
Part Name 5/16-18 UNC (2B) Hvy Hex Nut	Operation Rejected At WPPS Receiving		Rejected By Inspector
Quantity	Defect		
200 Pcs	5/16-18 UNC(2B) Hvy Hex Nut ASME SA 194 Gr. 2H NCA 3800 Sec. II and III Code Year 1986 Code Class NB 1 Thru Year 1987 Cust Spec 10413 Rev. 1 A&G manufacturing Mark superimposed over the Uchimoto Mark Material not up graded Per Section III		
DIRECTED DISPOSITION			
	Responsibility	Scrap	Rework Use As Is Sort Return To Vendor
A&G		Scrap	
VENDOR			
Approvals	<i>John Shalston</i>	12-3-90	
Rework Instructions - Responsibility	N/A		Target Date
Rework Inspection Instructions - Responsibility	N/A		Target Date
Rework Traveler Reference	N/A		
Manufacturing Manager	Date	Production Manager	Date
<i>William Thomas</i>	12/3/90	N/A	
Design Engineering Manager	Date	Q.A. Manager	Date
N/A		<i>John Shalston</i>	12-3-90
VERIFICATION OF ACTUAL DISPOSITION			
VERIFIED Scrap	<i>W. Cook</i> 12/3/90	UNACCEPTABLE	
REASON:			
Q.A. Manager	<i>John Shalston</i>	Date	12-3-90