

ENERGY STEEL & SUPPLY CO.

January 16, 1991

Mr. Stewart Magruder USNRC Vendor Compliance U.S. Nuclear Regulatory Commission Mail Stop 9D4 Washington D. C., 20555

RE: General Fasteners Company ES&SC NOR #0334

Dear Mr. Magruder:

In reference to our recent telecom on the above subject I submit to you the following for your review and comment:

ESESC Non-Conformance Report No. 0334 was written to investigate resolution to the issues pertinent to Nuclear Safety Related materials supplied to ESESC by the General Fastener Company (GENFA). The primary issues of concern are:

- 1) The General Fastener Company was unable to provide ES&SC with objective evidence that safety related materials supplied by them to ES&SC were procured by them in accordance with the requirements of 10 CFR 50 Appendix B and 10 CFR Part 21.
- 2) The materials in question have, for the most part been supplied to the ES&SC customers as safety related.

Upon completion of the above referenced ES&SC NCR 10334, it has been concluded by ES&SC that the nonconforming condition is programmatic in nature and does not result in any significant loss in confidence in the reliability of the material. Therefore ES&SC is recommending that the disposition for the material as "use as is" based on the conditions providing evidence on the NCR. A copy of the NCR will be issued to the customers in possession of the material for their disposition.

Thank you for your cooperation regarding the above matter. If there are any questions regarding the above do not hemitate in contacting me.

Very truly yours.

Robert J. Paton Vice President,

Quality Assurance

RJP/8

cc: M. Mitchell

1. Pabbri

OA file

enclosure: ES&SC NCR 9334; utility letters issued

TE09

WORLD HEADQUARTERS 2715 PALDAN DRIVE

TELECOPY: (313) 377-2338

(313) 377-4990

TELEX: 798815

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99901106

EASYLINK: 62819432

AUBURN HILLS, MI 48057 U.S.A.

7102060126 910116 PDR 04999 EMVESSE 99901106 PDR

ASME FASTENERS - CARBON STEEL - HIGH STRENGTH LOW ALLOY - ALLOY - STAINLESS - PLATE - BARS - SHAPES - PIPE - FITTINGS - FLANGES



Energy Steel & Supply Co.

Non-Conformance/Corrective Action Report

NCR No.0334

Purchase Order No.GENFA 1986-87 Invoice No.N/A ALL S/R PO'S

Date 12/97/98

Type of Non-Conformance [] Material [] Document

[X] Other

Person Identifying Non-Conformance: Robert J. Paton, V.P., Q.A.

Non-Conformance Description: The General Fastener Company of Livonia, MI was found to be nonconforming in the implementation of their 10 CFR 50 Appendix B program for the supply of materials to ES&SC on the attached listed purchases (att. # A). The General Fastener Company (GENFA) was unable to supply objective evidence to ES&SC that materials supplied by them to ESASC as Safety Related (10 CFR 50 Appendix B, 10 CFR Part 21) were procured by GENFA from their suppliers/manufacturers in accordance with the requirements of 10 CFR 50 Appendix B and 10 CFR Part 21, as required by the ES&SC purchase orders to GENFA.

By:RJP 0 - Date: 10/18/90

Recommended Disposition:

() use-as-is

1 repair to original specification

1 rejected

[] replace

[X] Other

10 CFR Part 21 Reportability [] Yes [X] No

Comments (include technical justification, repair procedure, replacement or rejection procedure):

- 1: The customers receiving the material in question from ESESC have been notified via letter dated 11/14/90 (copies attached), that there is question with regard to conformance to the purchase order requirements.
- 2) ES&SC has performed product testing for five (5) of the items that had quantiti .. still in stock at ES&SC. Testing for all rive consisted of chemical and physical analysis to the requirements of the material specification for one (1) representative piece per each of the five items sampled. Results of the the testing indicated that the material was in conformance with the original CMTR'S and specifications.
- 3) ESASU review of the vendor trend analysis reports for 1987 and 1986 found that there has been only one nonconformance report written for GENFA (NCR #0126 dated 3/9/87), and none issued for 1986. The results of of each years vendor trend analysis exhibits very little to no negative confidence in GENFA'S ability to provide quality products.
- 4) In review of the above, and the audit report for GENFA, it is now considered that the confidence in the material supplied by GENFA has been strengthened. The nonconformance may be considered as programmatic in nature and not resultant in any significant loss in confidence in the reliability of the material.



NCR No.0334 Page 2

- 5) Conditions that provide evidence that material may be acceptable to use as is:
 - a) The audit report for GENFA exhibited that it was apparent that GENFA had a verification and traceability program in effect during the time period in question.
 - b) The historical trending for GENFA exhibits confidence in the vendors ability to supply quality material.
 - c) Product sample testing exhibited no material deviations from the requirements of the material specifications.
 - d) ES&SC performed visual receipt inspection of the material for conformance to the purchase order requirements which included sampling inspection for general dimensional conformance and product marking requirements.
 - e) To date there has been no known nonconformances issued by the customers against any of the material shipped for discrepant material conditions causing the material to be unsuitable for use.

The results and considerations of this report will be issued to the USNRC for comment.

By: RJP / - - Date: 01'04/91

Corrective Action (to prevent recurrence): The approved vendor f. 's have been examined and it has been determined that this appears to be isolated case. The current methods and policies employed by ESS', in the approval of vendors is more strictly monitored than was done during the period in question. The current quality staff at ES&SC is more proficient and knowledgeable in the intent and applicability of codes and regulations as currently invoked on nuclear safety related materials. The acceptability of a vendor based on audit results alone as typified by this case is not feasible to the current practices and policies of ES&SC.

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Disposition	Approval	(Signatur	e &	Date)	TMF Jeri M. Jabli 1/8/91
Disposition	Verified	(Signatur	e &	Date)	RJP Robert, 8 - 1/10/91
Corrective	Action App	roval (Si	g &	Date)	IMF Jerum Jobh 1/8/91
Corrective	Action Ver	ified (Si	g &	Date)	ASP Per 1 / 80 1-10-91
Non-Conform F119 REV. 3	8/23/89	d (Signat	ure	& Date	B) MRM Julul Mutur 1-16-91

TABLE #1

NCR #0334 ATTACHMENT "A"

ORDER TRACE DATA

ES&SC PO#	* MANUFACTURER	* ES&SC* ES&SC * SO# * CUSTOMER & PO #	*SHIP DATE*
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605027	GENFA SUPPLIED C OF C ONLY	1679 - ILLINDIS POWER (2787) (X-33863)	05/30/86
606024	CARPENTER TECH. CORP.	1745 - ILLINDIS POWER (2888) (X-35761)	06/23/86
607049	GENFA SUPPLIED C OF C ONLY	1839 - HUNTER CORP. (3036) (N-2944)	07/31/86
609054	11	1997 - NEBRASKA PUB. PWR. (3269) (259964)	10/03/86
610012	SUPERIOR WASHER KEYSTONE THREADED PRODUCTS B & G MANUFACTURING	2105 - VERMONT YANKEE	12/23/86
610032	KEYSTONE THREADED PRODUCTS	2061 - DETROIT EDISON ,3533,3681) (NR-150250)	11/24&26/86
610073	B & G MANUFACTURING	2093 - HUNTER CORP. (3430) (N-3005)	11/12/86
611024	11	2148 - VERMONT YANKEE (3520) (28977)	11/25/86
611037	LAKE ERIE SCREW	2158 - ALABAMA POWER	12/15/86
701050	B & G MANUFACTURING	(3597) (QP-1289) 2383 - BELL POWER 839,3912) (GPN-1533)	2/11&24/87
702007	INFASCO	2408 - VEPCO	02/23/87
702099	II	(3910) (SNS-118933) 2495 - MILL PWR/DUKE PWR (3978) (N10325-14)	03/09/87
703025	GENFA C OF C DNLY	2546 - ROCHESTER GAS (3975) (NQ-10606-BJD)	03/06/87
704062	B & G MANUFACTURING	2688 - VEPCD (4268) (CSY-128425)	05/05/87
706025	II	2844 - CONSUMERS POWER	06/26/87
706030	INFASCO	(5164) (5019-9659-QA) 2862 - NEBRASKA PUB. PWR. (5152) (270624)	06/22/87
706042	NIPPON FASTENER INFASCO KAWASAKI STEEL	2898 - HUNTER CORP. (5158) (N3119)	06/24/87
710033	ONO MANUFACTURING SUMITOMO METALS	3232 - MORRISON CONST. (3232) (F01867)	10/19/87

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GA CD: 1 = 10 CFR PT21; 2 = 10 CFR 50 APPENDIX B; NON-Q
3 = ANSI N45.2; 4 = ES&SC QA PROGRAM MANUAL; CQ = COMMERCIAL QUALITY



NRC FASTENER INVESTIGATION (GENFA) 10/23/90

The following is a listing of Nuclear Safety Related (10 CFR Part 21) ES&SC Purchase Orders issued to the General Fastener Company that do not contain a General Fastener Co. Certificate of Conformance or Compliance as part of the General Fastener Co. supplied documentation or the C of C does not reference 10 CFR 50 Appendix B or 10 CFR part 21 as required by the ES&SC Purchase Order.

ES&SC PO #	ORDER DATE	MTRL HT#	Manufacturer Name
*606024	06/06/86	864996	CARTECH/PRDTN.THD.PROD.
702007	02/04/87	B17867 A17328	INFASCO INFASCO
*703025-	03/06/87	REF#703025	UNKNOWN GENFA CofC ONLY
704062	04/13/87	680E-366 KC8419 409964	B & G MANUFACTURING B & G MANUFACTURING B & G MANUFACTURING
706025	06/25/87	3049E	B & G MANUFACTURING
706042	06/18/87	R45418 C21157 2-38878	NIPPON FASTENER INFASCO ONO MFG/KAWASAKI STEEL
706030	06/08/87	B19022 A17458 RN0252 C21036	INFASCO INFASCO INFASCO

NOTE:

* = General Fastener Co. C of C does not reference 10 CFR 50 Appendix B nor 10 CFR Part 21.

Purchase order numbers not precaded with "*" did not contain GENFA C of C.

NAME/ADDRESS	DOCUMENT SENT	DATE SENT	I RESPONSE REC'S
Morrison Construction La Salle County Stat 2601 N. 21st Road Marseilles, IL 61341	General Fastener Ltr	11/14/90	
Hunter Corporation C/O Commonwealth Ed 101 Shiloh Blvd. Zion, IL 60099	General Fastener Ltr	1 11/14/90	
Set late for the set less out one can can can see out out out out on see out out out out			
Mr. John Larson QA Supplier Supv. Nebraska Pub Pwr Dist P.O. Box 499 Columbus, NE 68601	General Fastener Ltr	11/14/90	WELL TRUE ON TOWYRIK YOU- 573-8576 MIKE HENRY-PARTIAL REPLOCAMENT MICHORD
Mr. Michael J. Fox Senior QA Consultant Consumber Power Co. Palisades Power Plt 1945 W. Parnall Jackson, MI 49201	General Fastener Ltr	11/14/90	
Virginia Power Co. I Innabrook Techn Ctr 5000 Dominon Blvd. I Glen Allen, VA 20060 I Mgr Licensing & Pgrms I	General Fastener Ltr	11/14/90	
Rochester Gas & Elec Manager Nuclear Lic & Safety 49 East Avenue Rochester, NY 14604	General Fastener Ltr	11/14/90	1 1 1 1 1
Mr Chuck Christopher Bell Power/Ginna Staty P.O. Box 156 Ontario Ctr, NY 14520	General Fastener Ltr	11/14/90	
Mr. C.A. Robinson EC-12/QA Duke Power Co. P.O. Box 33189 Charlotte, NC 28242	General Fastener Ltr	11/14/90	12-18-90 (LETTEL) CA RODINSON MINL INSTALLED IM NON-SAFRTY APPLICATION
Alabama Pwr Co. Farley Nuc Pit US Hwy 955 Columbia, AL 36319	General Fastener Ltr	11/14/90	

GENERAL FASTENER LETTERS - DATED NOVEMBER 14, 1990

		LOG		
	NAME/ADDRESS	DOCUMENT SENT	DATE SENT	I RESPONSE REC'D
	Vermont Yankee Nuclear! Governor Hunt Road Vernon, VT 05354 ATTN: QA	General Fastener Ltr	11/14/90	
4	Mr. Jerry Bragg Supervisor Proc QA Detroit Edison Co. Fermi Nuclear 6400 N. Dixie Hwy Newport, MI 48166	General Fastener Ltr	11/14/90	1 JEANY BUSSONE. 112-6-90 VELSAL. 11-4-91 VERBAL REPLACEMENT
	Ms. P.A. Irons QA, V-905 Clinton Power Station P.O. Box 678 Clinton, IL 61727	General Fastener Ltr	11/14/90	
,				



ENERGY STEEL & SUPPLY CO.

November 14, 1990

Gentlemen Virginia Power Co. Innsbrock Technical Center 5000 Dominon Blvd. Glen Allen, VA 23060 ATTN: Mgr Licensing & Programs

RE: General Fasteners Cympany 11820 Globe Road Livonia, MI 48150-1180 ***

WORLD HEADQUARTERS 2715 PALDAN DRIVE AUBURN HILLS, MI 48057 U.S.A. (313) 377-4990

TELECOPY: (313) 377-2338
TELEX: 798815
EASYLINK:: 62819432
Home of the "Duke of Ruke"



Dear Gentlemen

During a recent review of vendor files, we have discovered that General Fasteners Company who was on the Energy Steel & Supply Co. (ESSC) Approved Vendors List from June 12, 1986 until November 10, 1987, for the supply of NON-ASME "safety-related" fasteners, did not provide certain Certificates of Compliance/Conformance (COC's) as required by our purchase orders.

ESSC now bel'eves that there is the possibility that some of the fasteners provided to us by General Fastener may not have been provided under the quality assurance requirements of 10 CFR 50 appendix B, or the requirements of 10 CFR Part 21.

The orders in question cover material we have provided you on the attached ESaSC Certificate of Conformance.

ALL material ordered by ESSC from General Fasteners, Inc. was ordered correctly. ALL of our purchase orders to General Fasteners Company required them to provide material under the provisions of their Quality Assurance Manual audited and approved by ESSC, and in accordance with the provisions of 10 CFR 50 appendix B and 10 CFR Part 21.

During this time period General Fasteners Company supplied fasteners for a total of eighteen (18) orders. Of the total of eighteen orders, seven (7) orders were furnished with Certified Mill Test Reports (CMTR's) as required, but we did not receive General Fasteners Companys Certificate of Compliance (COC), or the COC provided was incomplete.





TRICAL

We contacted General Fastener, Inc. to obtain the COC's for the seven (7) orders that had missing or incomplete COC's. We were informed by General Fasteners Company that they have had several QA Manager changes and that the people responsible for providing the COC's were no longer employed by General Fasteners Company, could not find the files that would have contained the COC's, and therefore, would not be able to furnish COC's.

Additionally, we have requested copies of audits which were supposedly conducted by General Fasteners Company for the supply of material that was furnished to ESSC, but have only received one audit in response to our request. We feel there should have been at least eight audits conducted.

We wish to point out that we have never experienced a single quality problem with any material furnished by General Fasteners Company, but since they are unable to furnish COC's and provide objective evidence of procuring the materials in accordance with the requirements of 10 CFR 50 appendix B and 10 CFR Part 21, we must consider the possibility that any fasteners furnished to ESSC with the requirements of 10 CFR 50 appendix B or 10 CFR Part 21 imposed, may not have been furnished under their Quality Assurance Program as required.

Therefore, we request you review the attached CofC and evaluate the installation/application of the fasteners to determine their suitability for use. Since the material furnished to you was purchased by ESSC as "safety-related" no additional testing or upgrading was performed.

ESSC has been in contact with the NRC concerning this matter. We would appreciate your responding to this letter no later than February 1, 1991, to advise us of your disposition on this material.

If you have any questions please do not hesitate to contact me.

Very truly yours,

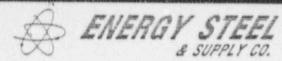
Robert J Paton Vice Saident, Qualit Assurance

RJP:m

cc: File

Attachments





2715 PALDAN DRIVE AUBURN HILLS, MI 48057 (313) 377-4990 Certificate of Compliance

X Statement of Conformance

CUSTOMER:

Virginia Electric & Power Surry Power Station Route 650 off Hwy. 10 Surry, VA 23833

TIPICAY

May 5 1987
OUR ORDER NO.
2688
YOUR ORDER NO.

CSV 128425

TEM	QUANTITY		DESCRIPTION	HEAT OR REFERENCE NO.
1 .	995 pcs	HEX CAPSCREW	1/4"-20 x 2"	680E-366
2	200 pcs	HEX CAPSCREW	5/16"-18 x 5/8"	· 680E366
3	191 pcs	HVY HEX NUT	1/2"-13	KC8419
4	167 pcs	HVY HEX NUT	1/4"-20	409964
5	994 pcs	HEX CAPSCREW	5/16"-18 x 1"	680E366

This is to certify that the material furnished for; order and described above, complies to the requirements of the applicable material specifications, as reported on the attached copies of the manufacturer's certified material test reports, and meets all requirements of your purchase order.

(THE FOLLOWING APPLY AS INDICATED)

This is to certify that the material supplied for your order conforms to the requirements of specification. Items 1,2,5: ASTM A-193-86 Gr. B7 Item 3,4: ASTM A-194-85a Gr	. 2Н
--	------

1	This is to certify that the	e material furnisi	hed for your order	was supplied in accord	lance with our identifica	tion and verification
Ş	program per the quality	requirements of	ASME Section III,	Division 1, Sub-article	NA-3700/NCA-3800 and	complies to the ap-
F	olicable requirements.		ASME Section	Ili, Subsection	, Class	Edition
		_ Addenda.				

This is to certify	y that	repair !	by	welding	was	not	performed	on	the	maler	al	described	ahove

This is to certify that to the best of our knowledge this material, during the manufacturing processes, tests and inspections,
has not come into direct contact with mercury or any of its compounds nor with any mercury containing devices employing a
single boundary of containment.

This is	to	certify	that	your	order	was	furnished	in	accordance	with	the	following	specifications	and/or	procedures:
-10		ER 50	L_Ap	pen	dix	B	10 CE	3_1	Part 21	app	ly				

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Licia	This is to certify that this order was supp	ed in accordance with	our Quality	Sustam Program	Davielan	7
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	Dated 9-12-86					

This is to certify that this order was supplied in accordance with our Quality System Certificate number	(QSC-511) which ex-
pires on 10-17-89.	

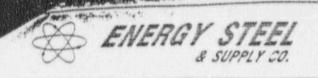
ENERGY STEEL & SUPPLY CO.

UTHORIZED A

Kelly A. Pre t. O.A. Coordinator

FORM #F-121





2715 PALDAN DRIVE AUBURN HILLS, MI 48057 (313) 377-4990

Certificate	of	Compliance	

Statement of Conformance

CUSTOMER:

Virginia Power North Anna Const. Site Warehouse 10, Route 700 Mineral, VA 23117 RICA

Pebruary 20, 1987 OUR ORDER NO. 2408 YOUR ORDER NO. SNS-118933

			0110 - TTO A S S
ITEM	QUANTITY	DESCRIPTION	HEAT OR REFERENCE NO.
1	100 pcs.	HEX CAP SCREW 5/16''-18 UNC 2A X 1-1/4	B17867
2			A 17328

This is to certify that the material furnished for your order and described above, complies to the requirements of the applicable material specifications, as reported on the attached copies of the manufacturer's certified material test reports, and meets all requirements of your purchase order.

(THE FOLLOWING APPLY AS INDICATED)

Ø	This is to certify that the material supplied for your order conforms to the requirements of specification. SAE J 429, GR. 8
	This is to certify that the material furnished for your order was supplied in accordance with our identification and verification program per the quality requirements of ASME Section III, Division 1, Sub-article NA-3700/NCA-3800 and complies to the applicable requirements, as specified, of ASME Section III, Subsection, Class,
-	This is to certify that repair by welding was not performed on the material described above.
	This is to certify that to the best of our knowledge this material, during the manufacturing processes, tests and inspections, has not come into direct contact with mercury or any of its compounds nor with any mercury containing devices employing a single boundary of containment.
M	This is to certify that your order was furnished in accordance with the following specifications and/or procedures: 10. CFR 50 APPENDIX B, 10. CFR PART 21 APPLY
R	This is to certify that this order was supplied in accordance with our Quality System Program, Revision $\frac{7}{9-12-86}$.
	This is to certify that this order was supplied in accordance with our Quality System Certificate number (QSC-511) which expires on 10-17-89.

ENERGY STEEL & SUPPLY CO.

Kelly A. Pratt, Q.A. Coordinator

FORM (F-121

PUPUPAGE GRUEN THE WISKELL

ENERGY STEEL & BUPPL CO. 2715 PALDAM DRIVE AUBURN HILLS, MI 48326 313 377-4950

MUEME 1-71+-892-1961

MMA LABORATORIES 15171 PIPELINE LEME HUNTINGTON BEACH, CH 98649 ENERGY STEEL & SUPPLY CO. 2715 PALDAN DRIVE AUBURN HILLS, MI 46326

F. U. D.

COMPTENDED IN

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DUE DIVIS NO

UPS NEXT DAY

YOUR FLI-FRE PP NET 30 DAYS 6/00/00 12/06/ ALMALAM ISLAFT

LESUNIE LEVIL UN

OUR MATERIAL YOU ARE TO TEST ACCORDING TO THE ATTACHED SUPPLEMENTARY SHEET. SEE SRP #4669, 4670, 4671, 4672, 4673.

POID--) *TECHNICAL REQUIRENGNIS* THE FULLOWING REQUIREMENTS NOTED BELOW ARE AN INTEGRAL PART OF THIS PURCHASE ORDER AND MUST BE ADHERED TO.

p013--) NUCLEAR "SAFETY RELATED" ** "SAFETY RELATED"

DURY -- CERTIFICATIONS MUST BE COMPLETE AND OF MICROFILMABLE QUALITY.

5030-- CERTIFICATION OF TESTING IS REQUIRED.

P038--> CERTIFICATIONS ARE REQUIRED

DWAN -- THE ATTACHED SUPPLEMENTARY SHEET'S ARE AN INTEGRAL PART OF THIS ORDER. - ST PACES

5052--/ 10 CAR 50 APPENDIX 8 APPLIES

P053--> ANSI N-45.2-71/77 APPLIES

pdS+-- NOA-1 APPLIES

DUSE--) 10 CFR PART S! APPLIES

pUGU-- A STATEMENT THAT MATERIAL/SERVICES WERE REV. (3) DTD: 6/13/90 AUDITED ON 17.8

& APPHOVED BY ESSC UN: 7-70.90 IS REQ'D.//.5-90 101 --) PAYMENT OF INVOICES WILL BE POSTED

THE DATE CORRECT CERTIFICATIONS IS PECETVED.

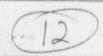
DODO--> *** VENERBY STEEL INTERNAL USE ONLY!!! ***#** DODI- G.A. REVIEW APPROVAL (77) DATE: 126,90

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areland - cour hunder and tell

BILLING/QA

SAM CONTINUED ON NEXT PROTE



PUPCHMEN DINGER NO. O'LDEL

EMERSY STIEL & SUPPLY CC. 2715 PALDAN DRIVE AURURN HILLS, MI 48326 313 377-4900

> MMA LABORATORIES 15171 PIPELINE LANE HUNTINGTON BEACH, CA 92549

ENERGY STEEL & SUPPLY CO. 2715 PALDAN DRIVE AUBURN HILLS, MI 48388

SHIP VIA F.O.B. CONFIRMING TO TERMS DUE DATE PO DATE

UPS NEXT DAY YOUR PLI-FRT PP

NET 30 DAYS 0/00/00 12/06/9

OTY TEM# DESCRIPTION PRICE AMOUN

TOTAL

. 1214

GENFA

Authorized Signature

BILLING/QA

MATERIAL UPGRADE	PROCESS SHEET
TO: Mr. Jay Haber	Testing P.O. No. 012011
MMA Laboratories	rarry/rag no.
15171 Pipeline Lane	Heat Code
Huntington Beach, Ca 92649	SEQ No.
	Sales Order No. 611037
(x) ANSI N-45.2-77/71 Applies	naces and received the management of the contract of the contr
(x) NQA-1 Applies	
(x) 10 CFR 50 Appendix B	
(x) 10 CFR Part 21 Applies	
(x) All testing to be performed in	accordance with your QA Manual
First Edition, Revision #3, da	ted June 13, 1990 audited and on lobola
on 7/10/90. 1/-5-90	equent manual review and approval
. 01 77 407 90 , 17 9	
() OUR MATERIAL YOU ARE TO PERFOR	M TESTING ON TO INSURE COMPLIANCE WITH
THE SPECIFICATION/S OUTLINED A	ND/OR IN ACCORDANCE WITH SECTION II
	B & PV CODE, SECTION III, NCA-3800 AS
OUTLINED HEREIN.	
A AUD VAMENTAL VALUABLE TO BEDEAD	M TESTING ON TO INSURE COMPLIANCE WITH
() OUR MATERIAL YOU ARE TO PERFOR	ND IN ACCORDANCE WITH ASME SECTION III,
	-) EDITION THROUGH THE () ADDENDA.
REMARKS:	
	CRIPTION QTY GAUGE WIDTH LENGTH
1 102131 3/4-10,7	1/4 Hex BI+ 1
management and the second seco	ACCUPATION AND ASSESSMENT ASSESSM
SRP NO. HEAT CODE TEST	TO: () ASME SA GRADE
	() ASTM A- GRADE
469	() ASTM B- ALLOY
	(a) SAE J- 429 ALLOY Comede S
HEAT/LOT REFERENCE NO. *	() AMS
	() AA
gradua di minigramia productiva de recordo Contragente Productiva de la contrada del la contrada de la contrada del la contrada de la contrad	
*(Test PO#, Lot No., Coil No., Etc)

(OF CHEMISTRY:	AND RESIDENCE REPORTED TO SERVICE SERVICE SERVICES SERVIC
C Mn S P	SI Cr Mo NI Cu Al B V
AND DESIGNATION SECURITIES SECURITIES SECURITIES	D DESCRIPTION OF STREET, STREE
Ti Pb Fe Zn	
(LA DUVETCALE: (Tewelle, vield, el	ongation, red. of area) () BEND TEST
() HARDNESS! Roc	kwell
0+4	그는 사람이 가게 가게 하면 하는 사람이 되었다. 그 이 없는 사람들이 되었다면 하는 것이 없는 것이었다면 없는 것이 없는 것이 없는 것이었다면 없었다면 없었다면 없었다면 없었다면 없었다면 없었다면 없었다면 없
() CHARPY IMPACT TESTS REQUIRED I	N ACCORDANCE WITH ASME SECTION III,
SUB-SECTION, CLASS, 19	EDITION THROUGH THE 19 ADDENDA,
NCA-3800.	
) ABSORBED ENERGY FT. LBS.
() LOWEST SERVICE TEMPERATURE REP	
SORIENIALION & LOCALION OF LEST	DESCINEA!
() TELECOPY TEST RESULTS UPON COM	PLETION TO ENERGY STEEL & SUPPLY CO.
(313)377-2812 AUTOMATIC.	
ENERGY STEEL & S	UPPLY CO.
(14)	10-11/16-12-6-90
	110011.00000000000000000000000000000000

MA ENTAL OF GIVE	
TO: Mr. Jay Haber	Testing P.O. No. 0/2011
MMA Laboratories	Tally/Tag No.
15171 Pipeline Lane	Heat Code
Huntington Beach, Ca 92649	SEO NO.
	Sales Order No. 701050
(x) ANSI N-45.2-77/71 Applies	110 COL LOS FICE 1100 and announcement and antiferrors
(x) NGA-1 Applies	
(x) 10 CFR 50 Appendix B	
(v) 10 CFR Pamt 21 Applies	
(v) All testing to be performed in	accordance with your QA Manual
First Edition, Revision #3, ds	ated June 13, 1990 audited and an why 90 mg
approved on 10/17/39 with subs	sequent menual review and approvel
on 7/10/90. 11-5-90 mg	
() OUR MATERIAL YOU ARE TO PERFOR	RM TESTING ON TO INSURE COMPLIANCE WITH
THE SPECIFICATION/S OUTLINED A	AND/OR IN ACCORDANCE WITH SECTION II
SPECIFICATION OF THE A.S.M.E.	B & PV CODE, SECTION III, NCA-3800 AS
OUTLINED HEREIN.	
	A PROPERTY OF THE PROPERTY OF THE PARTY
() OUR MATERIAL YOU ARE TO PERFOR	RM TESTING ON TO INSURE COMPLIANCE WITH AND IN ACCORDANCE WITH ASME SECTION III,
THE SPECIFICATION/S OUTLINED A) EDITION THROUGH THE (_) ADDEND
SUBSECTION (), CLASS (), (* * * * * * * * * * * * * * * * * * *
REMARKS:	
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
ITEM HEAT NO. PRODUCT DES	
2 655K423 Huy Hex Bolt	+3/8-16x 1.3/4 1
SRP NO. HEAT CODE TEST	TO: ( ) ASME SA GRADE
	( ) ASTN A- 367 GRADE A
4670	( ) ASTM BALLOY
	( ) SAE J ALLOY
HEAT/LOT REFERENCE NO. *	( ) AMS
	( )
AND ADDRESS AND AD	
*(Test PO#, Lot No., Coil No., Etc	The state of the s
(V) CHEMISTRY:	ADDRESS ADDRES
C Mn S P	Si Cr Mo Ni Cu Al B V
NAME AND ADDRESS OF THE PARTY O	CONTRACTOR DESCRIPTION CONTRACTOR CONTRACTOR DESCRIPTION CONTRACTOR METABOLISMS DELIVERABLE
. Ti Pb Fe Zn	
A MINOROLICA (Manualla minoral mi	ongation, red. of area) ( ) BEND TEST
(v) PHIDICALD: (Tensile, yield, el	kwell Oxprinell ,
( ) CHARPY IMPACT TESTS REQUIRED I	N ACCORDANCE WITH ASME SECTION III,
SUB-SECTION, CLASS, 19	EDITION THROUGH THE 19 ADDENDA
NCA-3800.	아들은 사람들은 사고 있다면 하는 맛이 있는데 가는데 되었다.
( ) TEST TEMPERATURE AT F (	
( ) LOWEST SERVICE TEMPERATURE REPO	ORTED IS F.
>ORIENTATION & LOCATION OF TEST	SPECIMEN!
) TELECOPY TEST RESULTS UPON COM	PLETION TO ENERGY STEEL & SUPPLY CO.
(313)377-2812 AUTOMATIC.	
ENERGY STEEL & ST	UPPLY CO-

(15) Par 12-6-90

MATER	IAL UPGRA	DE PRO	CESS	SHEET	
15171	y Kaber borstories Pipeline Lane gton Beach, Ca 926	549	Ta	lly/Tag No. Heat Code	612011
(x) NQA-1 A (x) 10 CFR (x) 10 CFR (x) All tes First E	45.2-77/71 Applies pplies 50 Appendix B Part 21 Applies ting to be perform dition, Revision * d on 10/17/88 with 790. //-5-90	ed in accorda	ance with )	our QA Manu audited <del>and</del>	el 10/18/00 1
THE SPECIFIC	ERIAL YOU ARE TO P CIFICATION/S OUTLI CATION OF THE A.S. D HEREIN.	NED AND/OR IN	ACCORDANC	E WITH SECT	ION II.
THE SPEC	ERIAL YOU ARE TO POSIFICATION/S OUTLI	NED AND IN AC	CORDANCE W	ITH ASME SE	
		A 10-20-10-10-10-10-10-10-10-10-10-10-10-10-10	***		
	8T7197 3/8-16x	T DESCRIPTION 2 HWHY BIT		GAUGE WID	TH LENGTH
SRP NO. HE 4671 HEAT/LOT REF	\$150 SEC_000 SECURIOR OF SECURIOR	()	ASME SA- ASTM A-3 ASTM B- SAE J- AMS	GRADI GRADI ALLO	A
*(Test PO#,	Lot No., Coil No.,	, Etc)	****		AND A SECURE AND A SECURE ASSESSMENT AND A
CHEMISTR	Y: C Mn S	P Si C	Mo N:	Cu Al	B V
	S: (Tensile, yield (A HARDNESS: Other,	Rockwell			
SUB-SECT: NCA-3800 ( ) TEST TEM! ( ) LOWEST SI	MPACT TESTS REQUIF	F ( ) ABSORE REPORTED IS	DN THROUGH BED ENERGY	THE 1	9 ADDENDA
(313)377-	TEST RESULTS UPON -2812 AUTOMATIC.			TEEL & SUPP	LY CO.

(16) Par = 1.Pc = 12-6-90

MATERIAL UPGRADE PROCESS SHEET
TO: Mr. Jay Haber  MMA Laboratories  15171 Pipeline Lane  Huntington Beach, Ca 92649  SEC No.  Sales Order No.  Material P.O. No. 0/20//  Seles Order No.  Material P.O. No. 70 7050
(x) ANSI N-45.2-77/71 Applies (x) NQA-1 Applies (x) 10 CFR 50 Appendix B (x) 10 CFR Part 21 Applies (x) All testing to be performed in accordance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition, Revision #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition #3, dated June 13, 1990 audited and on the performance with your QA Manual First Edition #4, Audited First Fi
OUR MATERIAL YOU ARE TO PERFORM TESTING ON TO INSURE COMPLIANCE WITH THE SPECIFICATION/S OUTLINED AND/OR IN ACCORDANCE WITH SECTION II SPECIFICATION OF THE A.S.M.E. B & PV CODE, SECTION III, NCA-3800 AS OUTLINED HEREIN.
( ) OUR MATERIAL YOU ARE TO PERFORM TESTING ON TO INSURE COMPLIANCE WITH THE SPECIFICATION/S OUTLINED AND IN ACCORDANCE WITH ASME SECTION III, SUBSECTION ( ), CLASS( ), ( - ) EDITION THROUGH THE ( ) ADDENT
ITEM HEAT NO. PRODUCT DESCRIPTION GTY GAUGE WIDTH LENGTH
4 Huy Hx BI+ 3/8-16 x 2 1/2 1
SRP NO. HEAT CODE  HEAT CODE  HEAT CODE  TEST TO: ( ) ASME SA- GRADE  ASTM A-307 GRADE  ALLOY  HEAT/LOT REFERENCE NO.*  ( ) AMS  ( ) AA  ( )  *(Test PO*, Lot No., Coil No., Etc)
CHEMISTRY:
C Mn S P Si Cr Mo Ni Cu Al B V Ti Pb Fe Zn N
( PHYSICALS: (Tensile, yield, elongation, red. of area) ( ) BEND TEST ( HARDNESS: Rockwell Brinell , Other ,
C CHARPY IMPACT TESTS REQUIRED IN ACCORDANCE WITH ASME SECTION III,  SUB-SECTION , CLASS , 19 EDITION THROUGH THE 19 ADDEND  NCA-3800.  C TEST TEMPERATURE AT F ( ) ABSORBED ENERGY FT. LBS.  C LOWEST SERVICE TEMPERATURE REPORTED IS F. >ORIENTATION & LOCATION OF TEST SPECIMEN:
( ) TELECOPY TEST RESULTS UPON COMPLETION TO ENERGY STEEL & SUPPLY CO. (313)377-2812 AUTOMATIC.
ENERGY STEEL & SUPPLY CO.

M.	ATE	RIA	L UI	PGRA	DE	PRO	CES	S SI	HEE	T		
	MMA 1517 Hunt	'1 Pipe Lington	tories line La Beach,	Ca 926	49			Tally H	/Tag leat C SEQ	No. 0/2 No. ode No. No. No.		***
(x) (x)	NOA-1 10 CF 10 CF All t First appro	Appli R 50 A R Part esting Editi	es appendix 21 App to be on, Rev	lies perform ision #:	3, dat	ed Jun	ance w	ith you	r QA	Menuel	10/18/90	
( )	THE S	PECIFI	CATION/	RE TO PI S OUTLI HE A.S.	NED AN	D/OR I	N ACCO	RDANCE	WITH	SECTION	II.	
( )	THE S	PECIFI	CATION/	RE TO PI S OUTLIN	NED AN	D IN A	CCORDA	NCE WIT	H ASK	E SECTIO	ON III,	NDA.
REMA	ARKS:_											
ITEN	1	HEAT	NO.	PRODUCT	DESC	RIPTIO	N Q	TY G	AUGE	WIDTH	LENGT	н .
5		578	7197	3/8-16	×31/2	Huy H	BH_	1 _		********	NAME OF PERSONS AND	
HEAT	73	REFERE	CODE		•	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	ASTM		2_	GRADE GRADE ALLOY ALLOY		
 * (Te	st PO	#, Lot	No., C	oil No.	, Etc.	)						
c/s	CHEMI	STRY:	***************************************	in S	P Zn	Si -	OF M	o N1	Cu	Al I	3 V	-
 ,												
()	CHARP	Y IMPA	Other_ CT TEST	e, yield DNESS: S REQUI	Rock RED IN	ACCOR	DANCE .	rinell_ WITH AS	ME SE		Ι,	NDA,
 ()	LOWES	TEMPER		PERATUR		RTED I	The state of the last of the l	NERGY _		FT. LBS	a a	
	3 100 100 100 100		ST RESU	LTS UPO	N COMP	LETION	TO EN	ERBY ST	EEL &	SUPPLY	co.	7
- April 1975	The Person of th		Married World Street,	Acres 4	and the same of	1 1 2 1 3 1	-	The second secon				

18 No 7,7 = 12.6-91

PICI/III/MMA LABORATORIES

ELINE LANE + HUNTINGTON BEACH, CA 92649 + 714/892-1961 + FAX 714/892-8159

CUSTOMER:	ENERGY STEEL & SUPPLY COMPANY	PART NUMBER: ITEM #1
DATE:	12/12/90	HEAT NUMBER: LO2131
P.O. NO.:	012011	SPECIFICATION: SAE-J-429
HMA W.O. NO.:	808-12-10-32169	DESCRIPTION: SEE BELOW

DESC: 3/4-10 x 2 1/4 HEX FLT TALLY/TAG # 000015 ST

SRP # 4669

WE SUBMIT THE FOLLOWING DETERMINATIONS:

Alloy: SAE J 429 GR.5

Chemis	try			Specifi	ca	tion Ran	ge
C	22	0.39	8	0.28	8	0.55	8
Mn		0.89	8	0.0000	8	N/S	8
P	20	0.01	8	0.0000	8	0.048	8
\$	u	0.03	8	0.0000	8	0.058	8
Si	- 22	0.23	8	0.0000	8	N/S	8
Cr.	23	0.22	*	0.0000	8	N/S	8
N1	42	0.01	8	0.0000	8	N/5	8
Mo	El .	0.14	8	0.0000	8	N/S	8
Fe	27	REMAIN	DER		REA	MAINDER	

ANSI N-45,2-77/71, NOA-1, 10 CFR 50 APPENDIX B, 10 CFR 21 APPLIES

ALL PRODUCTS SUPPLIED ON ENERGY STEEL & SUPPLY CO. PURCHASE ORDER 012011 WERE FURNISHED IN ACCORDANCE WITH THE MMA LABORATORY QUALITY ASSURANCE MANUAL. 1ST ED., REV. 3. DATED 06/13/90, WHT WAS AUDITED ON 10/18/90, AND APPROVED BY ES&SC ON 11/05/90.

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S	P.O.	THE PROPERTY OF THE STATE AND THE PERSON OF THE PARTY OF	A
2	ITEM	P. T. I	
S	REVEN	YEDAAPPROVED	77.0
3		DATE 1843-90	2

RESPECTEULLY SUBMITTED.

THE ANALYSIS REPORTED ON THIS CERTIFICATION HAS BEEN PERFORMED IN ACCORDANCE WITH MMA QC/QA MANUAL AND RELATED PROCEDURES, FIRST FDITION DATED 06/13/90, REVISION 3.

AUTHORIZED SIGNATURE

THE INFORMATION CONTAINED ON THIS CERTIFICATION REPRESENTS ONLY THE MATERIAL TESTED. REPRODUCTION RIGHTS ARE RESERVED PENDING OUR WRITTEN APPROVAL.



MMA LABORATORIES

15171 PIPELINE LANE & HUNTINGTON BEACH, CA 92649 • 714/892-1961 • FAX 714/892-8159

NA PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE
TNUMBER: LO2131
IFICATION: SAE-J-429
SCRIPTION: SEE BELOW

DESC: 3/4-10 x 2 1/4 HEX BLT TALLY/TAG # 000015 SRP # 4669

WE SUBMIT THE FOLLOWING DETERMINATIONS:

E CUST O A S P.O. A S TEM OTY D S REVIEWED&APPROVED D DATE/2-13-90 T

*** CONTINUED FROM W.O. # 32169

ELASTIC PROOF LOAD RESULTS
(EXTERNALLY THREADED FASTENER)

AN ELASTIC PROOF LOAD TEST WAS PERFORMED ON THIS FASTENER TO A
LOAD OF 28,390 POUNDS AND HELD FOR 10 SECONDS. UPON COMPLETION OF
THE PROOF LOAD, THE FASTENER WAS REMOVED AND RE-MEASURED TO THE
NEAREST 0.0001" TO DETECT ANY PERMANENT DEFORMATION. PROOF LOAD
RESULTS INDICATE THAT THIS FASTENER CONFORMS TO SPECIFICATION
REQUIREMENTS. PROOF LOAD BASED ON 85,000 PSI

WEDGE TENSILE RESULTS (REQUIREMENTS # 120,000 PSI MIN)

ACTUAL FRACTURED AT

ULTIMATE TENSILE STRENGTH - #1 139,800 PSI THREADS

USING A 6 DEGREE WEDGE

HARDNESS TEST RESULTS
ACTUAL HARDNESS = HRC 28.5 REQUIREMENTS = HRB 25 - 34

ANSI N-45.2-77/71, NOA-1, 10 CFR 50 APPENDIX B, 10 CFR 21 APPLIES

ALL PRODUCTS SUPPLIED ON ENERGY STEEL & SUPPLY CO. PURCHASE ORDER 012011 WERE FURNISHED IN ACCORDANCE WITH THE MMA LABORATORY QUALITY ASSURANCE MANUAL, 1ST ED., REV. 3, DATED 06/13/90, WHICH WAS AUDITED ON 10/18/90, AND APPROVED BY ES&SC ON 11/05/90.

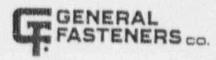
RESPECTFULLY SUBMITTED,

THE ANALYSIS REPORTED ON THIS CERTIFICATION HAS BEEN PERFORMED IN ACCORDANCE WITH MMA QC/QA MANUAL AND RELATED PROCEDURES, FIRST EDITION DATED 06/13/90, REVISION 3.

AUTHORIZED SIGNATURE

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### CERTIFICATION OF COMPLIANCE

ENERGY STEEL & SUPPLY CO.	DateNOV25,1986
2715 PALDAN	
- AUBURN HILLS, MI 48057	
Gentlemen:	
With reference to your order 2158	611037 dated 11-12-86
referenced by our shipper number	41655 dated 11-25-86
The material on the above order co	
ANSI B18.2.1 1965	specifications and
We certify that it has been purchase requirements of 10 CFR 50 Appendix compliance with 10 CFR Part 21.	sed and inspected as per the B and that we are in full
ENERGY STEEL & SUPPLY 13	GENERAL FASTENERS COMPANY  OY GOOD OF THE PROPERTY OF THE PROP

11820 GLOBE ROAD . LIVONIA, MICHIGAN 48150-1180 . (313) 591-9500



11/20/86

Lake Erie Screw Corporation 13001 Athens Avenue Cleveland, Ohio 44107 215-521-1800

CUSTOMER:

Ceneral Fasteners

11/20/86

SPECIFICATION:

DATE SHIPPED:

Gr. 5

STEEL TYPE:

1038H Mod

STEEL HEAT NO:

L02131

ORDER NO:

28225OC

CUST. PART NO:

DESCRIPTION:

3/4-10 x 2 1/4

Hex Head Cap

LOT NO:

090585

QUANTITY:

150 pleces

STEEL CHEMISTRY

C Mn .37 .88

.010 .017

Si Ni . 23

Cr.

No

a

MECHANICAL PROPERTIES

Wedge Tensile Strength

lbs. psi

140,100

Proof Load

lbs. elong.

Surface Hardness BHN

Core Hardness

BHN RC

C32

We hereby certify that the above is correct and that the parts furnished have been manufactured and inspected in accordance with applicable quality requirements. We also certify that all parts substantially conform to the drawing, specifications and conditions set forth on the purchase order and/or lake Erie quotation. These parts have been manufactured to the requirements of the lake Erie Screw Corporation Statistical Process Control Program and are covered by the Lake Erie Screw Corporation warranty as stated on our quotation. SPC data is on file at our company.

LAKE ERIE SCREW CORPORATION

Edward P. Konsol

Edward P. Kowel Quality Assurance Manager

PRODUCT MANUFACTURED IN THE UNITED STATES OF AMERICA

s) united States Steel Corporation

Test Report

(3

LORAIN WORKS  LO	01.000.0772 (NEV. 6/84) CAT NO. 852322				. 1
LAKE ERIE SCREW CORP  LAKE ERIE SCREW CORP  13001 ATHENS AVE  CLEVELAND OHIO 44107  LAKELORDEN NO. MILL ORDER NO. MAIL ORDER N	10 (CONTRACT NO.				
LAKE ERIE SCREW CORP  13001 ATHENS AVE  CLEVELAND OHIO 44107  LAKEWOOD OHIO  LAKEWOOD OHIO  RESPECTS.  PREPARED BY THE OFFICE OF:	J LORAIN WORKS	812641 6	MELL ORDER NO. 126/85 1C62600		OR INSPO. IN ACCORDANCE WIT
DATE 6/27/85	13001 ATHENS AVE	1300	ATHENS AVE	\$ H ! P	PREPARED BY THE OFFICE OF: E.L. BARTCLOTTA MGR. Q.

HR BARS CARBON C.34/.43 MN.80/1.10 P.04 MAX S.05 MAX SI.15/.30 COARSE GRAIN RRQ-A SPECIAL HARDENABILITY COLD WORKING QUALITY

01 MILL THRU 5/16 INCH

9.

	-	HICKNESS R JECTION	- 1		HAL DESI	CRIPTION	-			QUA		WEIGH	,	HEAT	NO.	TE	ST OR P	ECE.	YIE	LD PT.	TENSI	LE STR.	ELONGATE	ON %	% RED.	
	0	K SCHON		OB H	I WI.	-	- 1	ENGTH		1	+		-				IDENTIT	Y	-				IN 8"	IN 7"	OF AREA	8
1	25/	3280	s							And designations				LOZ	131											
1	25/	32R0	S											F05.	132											
			-								-															
	HEA	T NO	7	END 2	3	4	HARD 5	ENAB	ILIT	(R	C) 1	EST 1	-			015		ES-5	IXT 16	EENTI ZO	15)	28	32			
	L02	131	54	52	50	44	35 39						•			-			-							
																			1							
NO	).	TYPE	c	MN	ITP	IOF	TES	CU I	ST	CR	MO	LIZE		I The	F				NIT	ZED 1	550	F				
02	2131		37	88	010	017	23			- CA	: MO	214	AL:	N	V	8	13	CB :	co	1				S. Company		
102	2132		37		011		21						1						K	ILLEI	0 0	ARSE	GRAIN	AVE	RAGE	*
100000000000000000000000000000000000000	DA	TA T	EIS	SHEET						11			1						A.	ILLEI	; CO:	ARSE	GRAIN	AVE	RAGE	*
	-	1		SHEET						11														1/	,	

CADED DECIMAL POSITIONS FOR ELEMENTS ARE INDICATED BY THE LEFT MARGIN, VERTICAL DOTTED LINE OR DECIMAL POINT.



13001 Athens Accing Cleveland, Ohio 44107 216 321-1800

CUSTON Concret Fasteners Company

LAS 11/20/86

SML STELL TYPE: 1038H Mod

SCHEL FIEAT NO: L02131

CUST. FART NO:

DESCRIPTION: 3/4-10 x 2 1/4

Hox Head Cap

LOT NO: 090585

OUANTITY: 150 pieces

ORDER 140 PRODECT

| Min | P | S | Si | Ni | Cr | Mo | B | Cu | .88 | .010 | .017 | .23 | ... | ... |

MOCH PROPERTIES

BATE:

. .

Neds Tensile S		Proci	Load	Syrface	Hardness	Core He	
lbs.	psi	lbs.	elong.	BIQ.	RC	BLOS	Rc _
	135,300 137,700 125,300 13 13 136,800	26,400 28,400 28,400 31,100	.0001 .0002 .0003 .0003		C35 C35 C35 C35		SECTION AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF

We hereby dertify that the obove is correct and that the parts furnished have been man, forward and inspected — cordance with applicable quality tequirpments. We also entify that all parts substantially conform to the drawing, specifications and conditions set forth on the purchase order and/or take Eric quototion. The parts have been man factured to the requirements of the Lake Eric Screw Corpor Statistical Process Control Program and are covered by the Lake Eric Screw Corporation warranty as stated on our quotation. SPC data is on file at our company.

ENERGY STEEL & SUPPLY CO. Q.A. Dept.

By A date 12-1286

LAST ERIE SELEN CORNECTION

Edward O. 110-20

Edward P. Kowel Quality Assurance Manager

PRODUCT MANUFACTURED IN THE UNITED STATES OF AMERICA

P/C/3/10/MMA LABORATORIES

5171 PIPELINE LANE . HUNTINGTON BEACH, CA 92649 . 714/892-1961 . FAX 714/892-8159

CUSTOMER:	ENERGY STEEL & SUPPLY COMPANY	PART NUMBER: ITEM #2
DATE	12/12/90	HEAT NUMBER: 655K423 /
P.O. NO.:	012011	SPECIFICATION: ASTM+A-307
MMA W.O. NO.:	BDE-12-10-32172	DESCRIPTION: SEE BELOW

DESC: 3/8-16 X 1 3/4 HVY HEX BUT TALLY/TAC # 535 SRP # 4670

WE SUBMIT THE FOLLOWING DETERMINATIONS:

Alloy: ASTM-A-307 GR.A

Chemistry Specification Range C = 0.0000 % N/S Mn 0.77 8 0.0000 % N/S 0.013 8/ 0.0000 % 0.06 S 0.013 %/ 200 0.0000 % 0.15 Si 0.01 991 0.0000 % N/S Cr 0.04 0.0000 % N/S Ni 0.01 0.0000 % N/S Mo = 0.01 0.0000 % N/S Cu = 0.02 8 0.0000 % N/S REMAINDER REMAINDER

WEDGE TENSILE RESULTS (REQUIREMENTS = 4,650 LBS MIN) AC UAL FRACTURED AT ULTIMATE TENSILE STRENGTH - #1 7,441 LBS THREADS USING A 10 DEGREE WEDGE

HARDNESS TEST RESULTS ACTUAL HARDNESS = HRB 97.5 / REQUIREMENTS = HRB 69 - 100

ANSI N-45.2-77/71, NOA-1, 10 CFR 50 APPENDIX B, 10 CFR 21 APPLIES

ALL PRODUCTS SUPPLIED ON ENERGY STEEL & SUPPLY CO. PURCHASE ORDER 012011 WERE FURNISHED IN ACCORDANCE WITH THE MMA LABORATORY QUALITY ASSURANCE MANUAL, 1ST ED., REV. 3, DATED 06/13/90. WHICH WAS AUDITED ON 10/18/90, AND APPROVED BY ES&SC ON 11/05/90.

THE ANALYSIS REPORTED ON THIS CERTIFICATION HAS BEEN PERFORMED IN ACCORDANCE WITH MMA QC/QA MANUAL AND RELATED PROCEDURES, FIRST EDITION DATED 06/13/90, REVISION 3.

RESPECTFULLY SUBMITTED.

OCCUS-

REVIEWED & LIFETURE.

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AUTHORIZED SIGNATURE

THE INFORMATION CONTAINED ON THIS CERTIFICATION REPRESENTS ONLY THE MATERIAL TESTED. REPRODUCTION RIGHTS ARE RESERVED PENDING OUR WRITTEN APPROVAL.

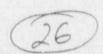




### CERTIFICATION OF COMPLIANCE

ENERGY STEEL AND SUPPLY	Date FEB 13, 1987
AUBURN HILLS, MI.	
Gentlemen:	
With reference to your order 701050	dated <u>FEB 11, 1987</u>
referenced by our shipper number 55190	dated FER 13, 1987
The material on the above order complies	in all respects with the
ASTM A-307 GR B WYY HEX BOLT	
We certify that it has been purchased and	inspected as per the
requirements of 10 CFR 50 Appendix B and	that we are in full
compliance with 10 CFR Part 21.	
promotion of the second	FASTENERS COMPANY
Q. A. Dept. by	SUN VI TO
	in thinks
date 2-38-87 Quality	Control Department

11P20 GLOBE ROAD . LIVONIA, MICHIGAN 48150-1180 . (313) 591-9500

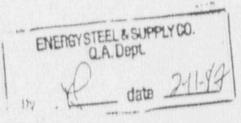


CERTIFICATE OF TEST

### B&G manufacturing co. inc.

P.O. BOX 269 . JO67 UNIONVILLE PIKE HATFIELD, PA. 19440

TO: GENERAL FASTENERS 11820 GLOBE ROAD LIVONIA, MI 48150

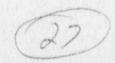


CUSTOMERS ORDER NO.
321 56QCC
OUR GROEF NO.
47466

ITEM NO.	QUAI	NTITY /	TAIM		3:26			MATERIAL	L AND SPECIA	ICATION	
A	50 PC	s.	655K42	3	3/8 -	16 × 1-3	/4 IN	LG HVY	HEX BOL	.TS	
					ASTM	A307-80	GR.B_				
THE RESERVE THE PERSON NAMED IN		A. WALLOW DESIGNATION OF THE PARTY OF	A STATE OF THE PARTY OF THE PAR	A CONTRACTOR OF THE PARTY OF TH	INICAL PROPE	RTIES	1		SPÉCIAL	TESTS	
Torrelle attength F1	31	Yield Point PSI	% Elangati in 2"	on Re	Area %	Hordrand		erts, span demonstra product dell	*		
7360						RB 90					
Will William I SHARESTON	THE REAL PROPERTY.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CONTRACT OF THE PARTY OF THE PA	CHEMICAL	ANALYSIS					
Carteen	Mang.	Phos.	Sudphur	Silicon	Nickel	Chromium	Moly.				
THE RESIDENCE OF THE PARTY.		.012	.012				-		-		
				1							
TEM NO.	QUA	MTITY/	HEAT	NO. /	\$121			MATERIA	L AND SPECIF	PEATION	
В	50	PCS.	578171	97		16 x 2 IN 07-80 GR		HVY HEX	BOLTS		
	-	NEEDS MONORCHES (MONORCHES)		MECH	ANICAL PROPE	No. of Contract of	to Bull various streets		SPECIAL	TESTS	
Tensile Strength Pi		Yield Point PSI	% Florigati	on R	Aces %	Hardness	/				
7440						RB 90					
MARKET STATE OF THE PARTY OF TH	CHARLES OF WARRANT & S.			The second second	CHEMICAL	ANALYSIS			***************************************	Acta Communication	
Carbon	Maria.	Price.	Buistas	Silicon	Nickel	Chromium	Maly.		-		
-		.012	.012								
	NAME OF THE OWNER, THE								L AND SPECI	CICATION.	
TEM NO.	and the state the second description of	WILLY .	HEAT CECHLOR	NO.	\$121	THE RESIDENCE OF THE PARTY OF T		Michigan Constitution	AMERICAN SCHOOL SECTION AND ADDRESS.		
<u>C</u>	50 PC	2	655K423			- 16 X, 2-	- 1	LG F	NY HEX E	COLTS	
-	annaghannean	-	THE RESERVE THE PERSON NAMED IN COLUMN TWO	-		307-80 0	R.B	The same was as the first	SPECIAL	TECTE	CANCELL STREET
Tyrneile		Yield	% Dongst		ANICAL PROPE				ZLECIAL	16313	CONTRACT COMM
Turnella Sirength P3		Yield Point PSI	len 2"		Z & DenA	Hordness	- Land			CONTRACTOR OF THE PERSON NAMED IN COLUMN 1	MARKA PROPERTY.
7080						RB 92					
THE RESIDENCE OF STREET, SPICE	-	-	andreas and the second	Medical Company	CHEMICAL	ANALYSIS	P				
	144	1.Phos.	S Budetuer 19	Silikon	Nictori	Charachiam	Blory.	1 23.4			1
Carbon A	Money.	.012	.012								

GENERAL FASTENERS
LIVONIA, MICHIGAN
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REVIEWED & GPROVED
WS DATE (2-13-

# PLANT DEC 13 '98 89125 MMA LABORATORIES (714) 892-8159 MMA LABORATORIES

15171 PIPELINE LANE & HUNTINGTON BEACH, CA 92649 + 714/892-1961 + FAX 714/892-8159

CUSTOMER:	ENERGY STEEL & SUPPLY COMPANY	PART NUMBER: ITEM #3
DATE:	12/12/90	HEAT NUMBER: 578T7197
P.O. NO.:	012011	SPECIFICATION: ASTM-A-307
MMA W.O. NO.:	BDE-12-10-32170	DESCRIPTION: SEE BELCW

DESC: 3/8-16 X 2 HVY HX BLT

TALLY/TAG # 536 SRP # 4671

WE SUBMIT THE FOLLOWING DETERMINATIONS:

Alloy: ASTM-A-30" GR.A

Chemis	try			Specif	ica	tion Rang
C	=	0.22	8	0.0000		N/S
Mn	==	0.72	8	0.0000	8	N/S
P	22	0.014	8	0,0000	8	0.06
S	=	0.013	8	0.0000	8	0.15
Si	2	0.01	8	0.0000	8	N/S
Cr	=	0.04	8	0.0000	8	N/S
Ni	- 10	0.06	8	0.0000	8	N/S
Mo		0.01	8	0.0000	8	N/S
Cu	22	0.02	8	0.0000	8	N/S
F'e	20	REMAIN	DER		RE	MAINDER

WEDGE TENSILE RESULTS (REQUIREMENTS = 4,650 LBS MIN)

ACTUAL FRACTURED AT

ULTIMATE TENSILE STRENGTH - #1 7,048 LBS THREADS

USING A 10 DEGREE WEDGE

HARDNESS TEST RESULTS
ACTUAL HARDNESS * HRB 97.5 REQUIREMENTS * HRB 69 - 100

ANSI N-45,2-77/71, NOA-1, 10 CFR 50 APPENDIX B, 10 CFR 21 APPLIES

ALL PRODUCTS SUPPLIED ON ENERGY STEEL & SUPPLY CO. PURCHASE ORDER 012011 WERE FURNISHED IN ACCORDANCE WITH THE MMA LABORATORY QUALITY ASSURANCE MANUAL, 1ST ED., REV. 3, DATED 06/13/90, WHICH WAS AUDITED ON 10/18/90, AND APPROVED BY ES&SC ON 11/05/90.

RESPECTFULLY SUBMITTED,

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P.O.

E CO SO CO E

THE ANALYSIS REPORTED ON THIS CERTIFICATION HAS BEEN PERFORMED IN ACCORDANCE WITH MMA QC/QA MANUAL AND RELATED PROCEDURES, FIRST EDITION DATED 06/13/90, REVISION 3.

AUTHORIZED SIGNATURE

THE INFORMATION CONTAINED ON THIS CERTIFICATION REPRESENTS ONLY THE MATERIAL TESTED. REPRODUCTION RIGHTS ARE RESERVED PENDING OUR WRITTEN APPROVAL.



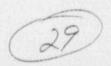




### CERTIFICATION OF COMPLIANCE

ENERGY STEEL AND SUPPLY	Date_	FEB 13, 1987
AUBURN HILLS, MI.		
Gentlemen:		
With reference to your order	_ dated	FEB 11, 1987
referenced by our shipper number 55190	dated	FEB 13, 1987
The material on the above order complies in all	respect	s with the
ASTM A-307 GR B HVY HEX BOLT specifi		
We certify that it has been purchased and inspec	ted as	per the
requirements of 10 CFR 50 Appendix B and that we		
compliance with 10 CFR Part 21.		
Q. A. Dept. Dy ( Man 4)	ERS COM	PANY
By R date 2-28:87 Quality Contro	l Depar	tment

11820 GLOBE ROAD . LIVONIA, MICHIGAN 48150-1180 . (313) 591-9500



### CERTIFICATE OF TEST

### B&G manufacturing co. inc.

P. O. BOX 269 . 3067 UNIONVILLE PIKE HATFIELD, PA. 19440

GENERAL FASTENERS 11820 GLOBE ROAD LIVONIA, MI 48150 ENERGYSTEEL & SUPPLY CO. Q.A. Dept.

CUSTOMERS ORDER NO. 321 56QCC OUR DEDER NO. 47466

TEM NO	VYTTHAUD OH		HEAT	HO	\$12	E	STATE OF THE OWNER.	MATTRIA	L AND SPECI	SICATION.	TOTO TRANSPORTED ARRIVED
A	50 PC	CS. /	£55K42		THE RESIDENCE OF THE RESIDENCE	- 16 x 1-	3/4 75				-
			America	To brown the con-					HEX BOX	-15	
-	7			MATCH	ANICAL PROPI	1 A307-80	GR.B				-
Termila	7	Yield	% Elorigat	Milliania Angli Principio	aduction of	IN LIES	/		SPECIAL	TESTS	
Strength P	.21	Point PSI	tn 2"		Area %	Horonec					
7360	and the second second					RE 90					Yes
				7	CHEMICAL	ANALYSIS	***************	CONTRACTOR DESCRIPTION AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TRANSPORT NAMED IN COLUMN	PRODUCTION OR OTHER DESIGNATION OF THE PERSON OF THE PERSO	MANAGE CO. C. S.	AND DESCRIPTION OF THE PERSON
Carbon	Mang.	Phos.	Sulphur/	Silicon	Nickel	Chremium	Maly.			1	
-	-	.012/	.012				******		-	1	-
		/					***************************************	-	-		-
EM NO.	QUA	MTITY	HEAT	HEAT NO. / SI		IZE ALLTERIAL AND PRECISIONS					
В	50	PCS.	578T71	THE RESERVE THE PARTY OF THE PA				MATERIA	AND SPECIA	MOITAN	
-	The state of the s	the state of the s		d	3/8 -	16 X 2 IN	LG	HVY HEX	BOLTS		
OR THE RESIDENCE NAMED IN	-	****			ASTM A3	07-80 GF	2	-	-	THE PERSON NAMED IN	
Torsile	/	Yield	% Florigation	MECH)	ANICAL PROPE	RTIES		-	SPECIAL "	TESTS	
Strangth Pt	SI	Yield Point P\$1	1000	R.	Area %	Hordness					
7440						RB 90					
	*****************		-		CHENICA			***	-	A delegation by any or passed	-
arbon	Mang.	Phos.	Sulphur	Silicon	CHEMICAL	Chromium	Mary.	-		7	
		,012	.012				71017	-	-	-	
		- Annual Marian									
							*********				
w wo T	CUAN	(TITY)	3, 207 1 100 1			MAISTON AND SPECIFICATION					
ACCOUNTS OF THE PARTY OF THE PA	THE RESIDENCE OF THE PARTY OF THE PARTY.	any/	SEEVIN ?	NO.	\$12.5	-	-	THE PERSON NOT SHEET AND ADDRESS OF THE PARTY OF	NUM PLECIL	TOTTON	
managed bringings.	50 PC	territory igits for each success and	655K423	NO.	and the same of the same of	-	1/2 1	- The same of the		-	
ACCOUNTS OF THE PARTY OF THE PA	THE RESIDENCE OF THE PARTY OF THE PARTY.	territory igits for each success and	THE RESERVE OF THE PERSON NAMED IN	40.	3/8	- 16 x 2- 307-80 G		- The same of the	VY HEX B	-	
Tarada	50 PC	S	655K423	MECHA	ASTM A	- 16 x 2-		- The same of the		ours	
Taralle	50 PC	territory igits for each success and	THE RESERVE OF THE PERSON NAMED IN	MECHA m   Re	3/8 ASTM A	- 16 x 2-		- The same of the	VY HEX B	ours	
Taratte trangth PS	50 PC	S. Yield	655K423	MECHA m   Re	ASTM A	- 16 X 2- 307-80 G RTIES Hordness		- The same of the	VY HEX B	ours	
Tangile trangth PS	50 PC	S. Yield	655K423	MECHA m   Re	ASTM A	- 16 X 2- 307-80 G RTIES Hordness RB 92		- The same of the	VY HEX B	ours	
Tarvalle trangen PS	50 PC	S. Yield	655K423	MECHA Xn . Re	ASTM A NICAL PROPE CHEMICAL	- 16 X 2- 307-80 G RTIES Morthess RB 92 ANALYSIS	R.B	ILG H	VY HEX B	ours	
Taratio trangth PS	50 PC	Yard Point Psi	655K423	MECHAN Re	ASTM A	- 16 X 2- 307-80 G RTIES Hordness RB 92		- The same of the	VY HEX B	ours	1

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GENERAL FASTENERS LIVONIA, MICHIGAN BUBJECT TO WEIGHT & COUNT

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## MMA LABORATORIES

ANE & HUNTINGTON BEACH, CA 92849 + 714/892-1961 + FAX 714/892-8159

CUSTOMER:	ENERGY STEEL & SUPPLY COMPANY	PART NUMBER TITEM #4
DATE:	12/12/90	HEAT NUMBER: 655R423
P.O. NO.:	012011	SPECIFICATION: ASTM-A-307
MMA W.O. NO.:	BDE-12-10-32171	DESCRIPTION: SEE BELOW

DESC: 3/8-16 X 2 1/2 HVY HX BLT TALLY/TAG # 537 SRP # 4672

WE SUBMIT THE FOLLOWING DETERMINATIONS:

Alloy: ASTM-A-307 GR.A

Chemis	try		Specif	Ca	tion Ran	er in
C	19	0.18 %	0.0000		N/S	
Mn	-	0.77 %		8	N/S	8
P		0.013 8		8	0.06	8
S		0.013 %	0,0000	8	0.15	8
84	**	0.01 %	0.0000	4	N/S	- %
63		0.04 %	6.0000	8	N/S	8
N1	27	0.01 %	0.0000	8	N/S	
Mo	100	0.01	0.0000	8	N/S	4
Cu	*	0.02 %	0.0000	8	N/S	8
Fe		REMAINDER		RE	MAINDER	

FRACTURED AT

WEDGE TENSILE RESULTS (REQUIREMENTS = 4,650 LBS MIN) ULTIMATE TENSILE STRENGTH - #1 7.177 LBS / USING A 10 DEGREE WEDGE THREADS

HARDNESS TEST RESULTS ACTUAL HARDNESS = HRB 95.5 / REQUIREMENTS = HRB 69 - 100

ANSI N=45.2-77/71, NOA-1, 10 CFR 50 APPENDIX B, 10 CFR 21 APPLIES

ALL PRODUCTS SUPPLIED ON ENERGY STEEL & SUPPLY CO. PURCHASE ORDER 012011 WERE FURNISHED IN ACCORDANCE WITH THE MMA LABORATORY QUALITY ASSURANCE MANUAL. 1ST ED., REV. 3. DATED 06/13/90, WHICH WAS AUDITED ON 10/18/90, AND APPROVED BY ESASC ON 11/05/90.

THE ANALYSIS REPORTED ON THIS CERTIFICATION HAS BEEN PERFORMED IN ACCORDANCE WITH MMA QC 'QA MANUAL AND RELATED PROCEDURES, FIRST EDITION DATED 06/13/90, REVISION 3.

RESPECTABLLY SUBMITTED.

AUTHORIZED SIGNATURE

THE INFORMATION CONTAINED ON THIS CERTIFICATION REPRESENTS ONLY THE MATERIAL TESTED. REPRODUCTION RIGHTS ARE





### CERTIFICATION OF COMPLIANCE

ENERGY STEEL AND SUPPLY	Date FEB 13, 1987
AUBURN HILLS, MI.	
Gentlemen:	
With reference to your order701050	dated <u>FEB 11, 1987</u>
referenced by our shipper number 55190	dated FER 13, 1987
The material on the above order complies in al	l respects with the
ASIM A:307 GR B HVY HEX BOLT speci	fications and
We certify that it has been purchased and insp	ected as per the
requirements of 10 CFR 50 Appendix B and that	
compliance with 10 CFR Part 21.	
Q. A. Dent	ENERS COMPANY
hat I harva	1 Miller 1
By R date 2-25.87 Quality Cont.	rol Department

11820 GLOBE ROAD . LIVONIA, MICHIGAN 48150-1180 . (313) 591-9500

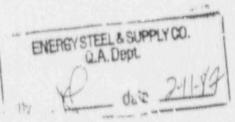
## OF TEST

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### B&G manufacturing co. inc.

F.O. BOX 269 * 3067 UNIONVILLE PIKE HATFIELD, PA. 19440

TO: GENERAL FASTENERS 11820 GLOBE ROAD LIVONIA, MI 48150



32156QCC OUR DROER NO.

47466

MATERIAL AND SPECIFICATION QUANTITY HEAT NO, \$128 ITEM NO. 3/8 - 16 X 1-3/4 IN LG HVY HEX BOLTS 655K423 50 PCS. ASTM A307-80 GR.B_-MECHANICAL PROPERTIES SPECIAL TESTS Termile Strength PSI % Elangation Reduction of Area % Hardness RB 90 7360 CHEMICAL ANALYSIS Nichel Silicon Chremium Supplement Carbon 012 012 MLATERIAL AND SPECIFICATION **DUANTITY** HEAT NO. SIZE TEM NO 50 PCS. 578T719 3/8 - 16 x 2 IN LG ASTM A307-80 GR.B 8 HVY HEX BOLTS SPECIAL TESTS MECHANICAL PROPERTIES Reduction of Areo S % Elempation Terralia Strangth PS Hondows RB 90 7440 CHEMICAL ANALYSIS Chromium Carbon Butchur Silicen Nichal .012 .012 MATERIAL AND SPECIFICATION QUANTITY HEAT NO \$125 ITEM NO. 50 PCS. 655K423 3/8 - 16 1 2-1/2 IN LG HVY HEX BOLTS

ASTM A307-80 GR.B SPECIAL TESTS MECHANICAL PROPERTIES

Reduction of Area % S Strength PS Hardness POWY PSI RB 92 7080 MICHEL ANALYSIS & Suprier BANY. Carbon ... Phone. Silkean .012 .012

WE HEREBY CERTIFY THAT THE FOREGOING DATA IS A TRUE COPY OF THE PRODUCING MILL, AND/OR MATERIAL SUPPLIER.

DATE

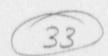
2/9/87

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GENERAL FASTEINERS
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8 & G MANUFACTURING CO.

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## 98_89/29 MMA LABORATORIES (714) 892-6159

PIPELINE LANE : HUNTINGTON BEACH, CA 92649 + 714/892-1961 + FAX 714/892-8159

QUSTOMER:	ENERGY STEEL & SUPPLY COMPANY	PART NUMBER: ITEM #5
DATE:	12/12/90	HEAT NUMBER: 57 8T7 197
P.O. NO.:	012011	SPECIFICATION: ASTM-A-307
MMA W.O. NO.	BDR-12-10-32168	DESCRIPTION: SEE RELOW

DESC: 3/8-16 X 3 1/2 HVY HX BLT

TALLY/TAG # 610

SRP # 4673

#### WE SUBMIT THE FOLLOWING DETERMINATIONS:

Alloy: ASTM-A-307 GR.A

Cher	nistry.		Specification Range	B
- (		0.19 %	0.0000 % N/S	9
. 1	An s	0.75	0.0000 % N/S W	h
1	9 18	0.015 %	0.0000 % 0.06 %	8
1	S . 10	0.012 %	0.0000 % 0.15 9	k
- 1	61 m	0.02 %	0.0000 % N/S	k
1	Or w	0.04 %	0.0000 % N/S 4	i
1	Vi w	0.03 %	0.0000 % N/S %	k
- 5	10 *	0.01 %	0.0000 % N/S %	k
	tu +	0.03 %	0.0000 % N/S 9	
F	'e =	REMAINDER	REMAINDER	

WEDGE TENSILE RESULTS (REQUIREMENTS = 4,650 LBS MIN) ACTUAL FRACTURED AT ULTIMATE TENSILE STRENGTH -#1 6,572 LBS THREADS

USING A 10 DEGREE WEDGE

HARDNESS TEST RESULTS ACTUAL HARDNESS = HRB 94.0 REQUIREMENTS = HRB 69 - 100

ANSI N-45.2-77/71, NOA-1, 10 CFR 50 APPENDIX B, 10 CFR 21 APPLIES

ALL PRODUCTS SUPPLIED ON ENERGY STEEL & SUPPLY CO. PURCHASE ORDER 012011 WERE FURNISHED IN ACCORDANCE WITH THE MMA LABORATORY QUALITY ASSURANCE MANUAL, 1ST ED., REV. 3, DATED 06/13/90, WHICH WAS AUDITED ON 10/18/90, AND APPROVED BY ES&SC ON 11/05/90.

RESPECTFULLY SUBMITTED

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AUTHORIZED SIGNATURE

THE INFORMATION CONTAINED ON THIS CERTIFICATION REPRESENTS ONLY THE MATERIAL TESTED. REPRODUCTION RIGHTS ARE RESERVED PENDING OUR WRITTEN APPROVAL.

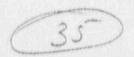




### CERTIFICATION OF COMPLIANCE

ENERGY STEEL AND SUPPLY	Date_FEB 13, 1987			
AUBURN HILLS, MI.				
Gentlemen:				
With reference to your order	dated <u>FEB 11, 1987</u>			
referenced by our shipper number 55190	dated FER 13, 1987			
The material on the above order complies in a	all respects with the			
ASTM A-307 GR B HVY HEX BOLT speci	ILICACIONS and			
We certify that it has been purchased and insprequirements of 10 CFR 50 Appendix B and that				
compliance with 10 CFR Part 21.				
ENERGY STEEL & SUPPLY CO. GENERAL FASE Q. A. Dept. by ( )	ENERS COMPANY			
	rol Department			
Ogie NO O Cone	tor peparement			

11820 GLOBE ROAD . LIVONIA, MICHIGAN 48150-1180 . (313) 591-9500



# BEG manufacturing co. Inc.

P 0 . BOX 265 + 3067 UNIONVILLE PIKE HATT-ELD, PA. 18440

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March 11, 1987

### INTRA-COMPANY MEMORANDUM

TO:

Michael R. Mitchell

FROM:

William F. Snody

SUBJECT:

Trend Analysis of 1986 NCR

COPY

Total number of non-conformances are 8.

Total number of open non-conformances are 0.

#### NCR Breakdown

VENDOR	NUMBER OF NCR'S	NUMBER OF P.O.'S	ERROR
V-019	1 1 1 1 1 1	17	5.8%
V-025		25	4 %
QV-070 *		3 (rec. in 86)	35 /6
QV-192		27	3.7%
QV-217		7	14.3%
QV-233 **		3	33.3%

* Vendor # QV-70 has a high percentage of NCR's to orders, however only 8 pieces out of 73 were mis-marked. To present a more accurate picture of vandor performance, the correct percentage would be 10.9% for actual material supplied.

** NCR written against this vendor is not a true NCR, please refer to the NCR # 118 for more information.

Two NCR's written were internal.

NCR# 0116 was a form change to more effectively show our NCR's closed.

NCR# 0119 was our failure to pass on the requirement of 10 CFR Part 21, on one order which we were able to resolve.

I believe the performance history of all vendors to be acceptabable for 1986 and believe that no action is required as a result of this trend analysis report.

(reviewed)

Michael R. Mitchell, President





# ENERGY STEEL & SUPPLY CO.



# INTRA-COMPANY MEMORANDUM

TO:

FILE

DATE: MARCH 16, 1988

FROM:

ROBERT J. PATON QA MGR.

SUBJECT:

TREND ANALYSIS OF 1987 NCR'S

Page 1 of 2

Total number of vendors used in 1987 are 150 Total number of non-conformance reports are 21. Total number of open non-conformance reports are 0.

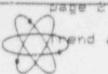
#### NCR BREAKDOWN:

No. of NCRs	No. of P.O.	Error Rate
1	4	25.00%
2	4	50.00%
1	12	8.33%
1	3	33.33%
1	19	5.26%
1	1	100.00%
2	169	1.18%
3	70	4.29%
4	38	12.50%
3	76	3.95%
1	6	16.67%
	1 2 1 1 1 2 3	1 4 2 4 1 12 1 3 1 19 1 1 2 169 3 70 4 32 3 75

### Notes:

Some vendors performance can be more correctly represented by comparing the number of pieces that actually were non-conforming to the total number of pieces supplied. (See page 2 for results)





end analysis of 1987 NCRs continued



# Indepth analysis of vendors with greater than 10% Error Rate

Vendor	NCR Pieces	Total Pieces	Error Rate
AFCST*	12	1,510	0.79%
BETST**	11	31	35.48%
CHITU***	3	3	100.00%
INLST****	3	15	20.00%
TEXBO****	415	1,866	22.24%
WELMI****	3	21	14.29%

After reviewing the above data along with a study of the content and severity of the NCR reports it has been determined that no action is required with exception to WELMI which has been down graded in its status as a quality vendor. Continued close surveillance of all vendors with an error rate above 10% is however considered necessary.

RJP/s cc:MRM APPROVED BY

Jun M Date 3-16-84

Date 3-16-84

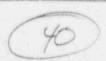


# Energy Steel & Supply Co.

# Non-Conformance/Corrective Action Report

	on-conformance/Coffective Action Report
NCR No. 0126	Purchase Order No. 703025 Invoice No. 3975
Date March 9,1987	Type of Non-Conformance [X ] Material [ ] Document [ ] Other
Person Identifyi Bob Ramsey (V-245),	ng Non-Conformance William F. Snody to Phil Brown (RG&E), and Mike Kirkland (Energy Steel & Supply Co.)
(Items 2 & 3 only w	Description Material supplied for RG&E P.O.#NQ-10616-B-JD ere not supplied with the quality assurance requirements of nd 10 CFR part 21, as required by their Purchase Order.
	By 9/2/12 7 2005 Date: 3.9.87
Comments (includement or rejection the items concerned	osition: [X] use-as-is [ ] repair to original specification [ ] rejected [ X ] replace [ ] Jother  e technical justification, repair, procedure, replace- n procedure): RG & E personnel are reviewing their use of to determine if they need replacement or if they can delete  ANSI N 45.2 - 1971 and 10 CFR Part 21 for these two items only.  By: 913716-2-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-
Ramsey (V-245) about Both parties underst	(to prevent recurrence) Talked to Mike Kirkland and Bob acting on quality related orders on verbal communication only. and this is how problems such as this arise and both will not future without hardcopy P.O.'s.  By Millian, F. J. Date: 3-13-87
Disposition Verif	oval (Signature & Date) Sellow 2 3-13-57  Sied (Signature & Date) Sulud M Ustati. 3-13-37  Approval (Sig & Date) Sulud To Sulud 3-15-37  Overified (Sig & Date) Sulud To Sulud 3-15-37  Closed (Sig & Date) Sulud To Sulud 5-21-17

F119 Rev. 2 1-24-86 wfs







ROCHESTER GAS AND ELECTRIC CORPORATION . 89 EAST AVENUE, ROCHESTER, N.Y. 14649-0001

AREA CODE TIE 546-2700

# September 21, 1987

Mr. Robert Payton

AA Manager
Energy Steel & Supply Company
2715 Paldan Drive
Anburn Hills, Michigan 48057

ENERGY STEEL & SUPPLY CO.

Q. A. Dept.

By dete 9-23-57

Reference: RGRE P.O.# NQ-10616-8-JD RGRE NCR# 6-87-142

Dear Mr. Payton: As per our telecon today, RGEE performed an internal evaluation of items #2 #3 on RGEE P.O. # NQ-10616-8-5D.

The internal evaluation indicated the product, although not provided to a specific QA Program, was satisfactory for the end use here at RGEE.

Due to Energy Steel notification to REAE of the problem. Energy Steel was not recorded as "Responsible" for the Jeficiency.

Sorry for the hand-written note, but only critical items are receiving typing at RGEE dul to budget Constraints

If I can be of further assistance, Please call.

C: Supplea File

90

Phillip & Brain

# ENERGY STEEL & SUPPLY CO. TELEP ONE AND CONFERENCE MEMORANDUM

		DATE	100	
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TELEPHONE CALL [ CONFERENCE [	716-7		10 July 10 Jul	
WITH, PHIL BROWN -			144	- 12000 V
COMPANY, R.G. +1E,	80# NO-106	16-B-JD		
SUBJECT: NCR # 126		THE RESIDENCE OF THE PARTY OF T		1 34
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MATERIAL DEFICIENCY	FORM # GA 7	142,		
VERBAL RECENERATION	w OF AS IS	USA BY	RGTE	9-21-87
BOB PITON/FILL BROW				
			THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	*** *** *** *** *** *** *** *** *** **
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Energy Steel & Supply Co. 2715 Paldan Drive Auburn Hills, MI 48057

2475

PURCHASE ORDER NO.

VENDOR CODE

V-245

703025

PURCHASE ORDER

General Fasteners Co. 12000 Globe TO: Livonia, MI

48150

SHIPTO: Our Pick-Up

B.O. B. L. W.B.							
P.O. DATE	SHIP VIA		F.O.B.		TERMS		
1/-0/00	Our Truck Origin		1.07.17	Net 30 Days			
BUYER	FREIGHT	REQ. DATE	CONFIRMING	TO	REMA		TA
334 1 75 2 4111	2101010	3.687	Bub Hamsuy		DO NOT DUPL	310401	N
TY.REQ.	ITEM NO.		DESCRIPTION		UNIT COST	AMOUNT	
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AUTHORIZED SIGNATURE





CERTIFICATION OF COMPLIANCE

DATE: 3/6/87

ENERGY STEEL

THIS IS TO CERTIFY THAT THE PARTS INDENTIFIED BELOW HAVE BEEN PROCESSED IN CONFORMANCE WITH YOUR REQUIREMENTS

P.O. NO. 1: 1703025 DATE SHIPPED 3/6/87

	11. 103023	270707
QUANTITY	PART NO.	DESCRIPTION
50		3/8-16 X 2-1/2 HHCSGR 2 PER SAE J429 GR2
50		3/8-16 HVY 2H NUT A194 GR 2H
		ENERGYSTEEL & SUPPLY CO. Q.A. Dept.
		By 9478. date 36.80

WE CERTIFY THAT PARTS LISTED ABOVE ARE TO SPECIFICATIONS OF MATERIAL. HARDNESS, STRENGTH AND PLATING REQUIRED TO DRAWINGS AND PART NO.

QUALITY CONTROL MANAGER

11820 GLOBE ROAD . LIVONIA, MICHIGAN 48150-1180 . (313) 591-9500

Energy Steel & Supply Co. 2715 Paldan Drive Auburn Hills, MI 48057

# SALES ORDER

2546

ROCHEST CUSTOMER NO.

BILL TO: Rochester Gas & Electric

89 East Ave. Rochester, NY

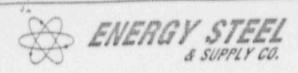
14649

SHIP TO: Rochester Gas & Electric Ginna Station

1503 Lake Road Ontario, NY

14519

36-87 54TURDAM DELIVER'Y DATE SHIP VIA TERMS F.O.B. 6/87 Fed Ex. Overnight A OUR ORDER NUMBER Origin PURCHASE ORDER NUMBER ORDER DATE SALESPERSON NQ10616BJD 3/6/87 Kirkland ITEM NUMBER DESCRIPTION UNIT PRICE AMOUNT REQUIRED SHIPPED BOLT 3/8''-16 X 2-1/2'' 999999 SAE J 429 GRADE 2 50 NUT 3/8''-16 999999 ASTM A-199 GRADE 24 ZH KP 3-6-87 1 Q.A. REVIEW/APPROVAL( 3 CERTIFICATION REQUIRED 13 CERTIFICATION OF CONFORMANCE REQUIRED W/SHIPMENT MATERIAL IS TO BE MARKED IN ACCORDANCE WITH MATERI 24 25 EACH BUNDLE IS TO BE TAGGED WITH HEAT#, PO#, GRADE, 29 Administration of the property STI-AL. 30 PACKAGING IN ACCORDANCE WITH ANSI N-45.2.2 LEVEL! 31 - Advers Shaman Apply 198 76 28 DO NOT SHIP WITHOUT RECEIPT OF CUSTOMER PURCHASE ( 33 ENERGYSTEEL 34 HEAT # VERIFIED W/CA( ) / / . OK TO PROCESS( 313-853-6010 35 DO NOT SHIP UNLESS ESSC QA DEPT AUTHORIZES RELEASE INSPECTED BY ( 0) 48 TARLA OF 3/8 187



2715 PALDAN DRIVE AUBURN HILLS, MI 48057 (313) 377-4990

and .	Certificate	nt.	Complianc	
-	Carmidate	01	Ser ibriance	

K Statement of Conformance

CUSTOMER:

Rochester Gas & Electric

Ginna Station 1503 Lake Rd. Ontario, NY 14519 March 6, 1987 OUR ORDER NO.

2545 YOUR ORDER NO.

			NQ-10616-BJD
ITEM	YTITHAUD	DESCRIPTION	HEAT OR PEFERENCE NO.
2	50 pcs	BOLT 3/8"-16 x 2-1/2"	703025
3	50 pcs	NUT 3/8"-16	703025

This is to certify that the material furnished for your order and described above, complies to the requirements of the applicable material specifications, as reported on the attached copies of the manufacturer's certified material test reports, and meets all requirements of your purchase order.

(THE FO	SELEDIN	INICS	APP	H.Y.	AS	NE	CATE	8D)
TITLE CH	Carried Sec. S. S.	11.4.00	4.34	76.1	1. 445.	1. 2.80.1	MIL 11 4	1

(30)	This is to certify that the material supplied for your order conforms to the requirements of specification.  Item 1: SAE J429 Gr. 2 Item 2: ASTM A-194 Gr. 2H
	This is to certify that the material furnished for your order was supplied in accordance with our identification and verification program per the quality requirements of ASME Section III, Division 1, Sub-article NA-3700/NCA-3800 and complies to the applicable requirements, as specified, of ASME Section III, Subsection, Class, EditionAddenda.
	This is to certify that repair by welding was not performed on the material described above.
	This is to certify that to the best of our knowledge this material, during the manufacturing processes, tests and inspections, has not come into direct contact with mercury or any of its compounds nor with any mercury containing devices employing a single boundary of containment.
[3]	This is to certify that your order was furnished in accordance with the following specifications and/or procedures:  Packaged in accordance with ANSI N45-2-2 Level C
	This is to certify that this order was supplied in accordance with our Quality System Program, Revision  Dated
	This is to certify that this order was supplied in accordance with our Quality System Certificate number (QSC-511) which expires on 10-17-89.

ENERGY STEEL & SUPPLY CO.

Kelly A. Pratt, Q.A. Coordinator

(46)

BALL TO:

P.O. BOX 49860

GINNA STATION

1503 LAKE RD

ONTARIO

ROCHESTER NY. 14804 SHP TO ROCHESTER GAS & ELECTRIC

OCHESTER GAS AND ELECTRIC CORPORATION 89 EAST AVE, ROCHESTER, MY. 14649-0001

NY 14519

2546 + 2545 **PURCHASE ORDER** 

ORIGINAL

NOTICE: YOUR PEDERAL TAX LD: NAMES MAST APPEAR ON ALL INVOICES

ENERGY STEEL AND SUPPLY CO. 2715 PALDAN DRIVE

AUBURN HILLS MI 48057

> MEALE DEVITY ALL MATER OCHESTER GAS AND ELECTRIC I MARTINS

ALL B KIN'S SEPTENG PAPERS AND PA

SHOW . XILE PLENCHASE DELICH MARK

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SLEPPLEMENT NO.

DATE OF CECLER

PERCHANT ORDER NOW

NQ-10616-B-

03/10/87

9901712-001

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	1 1" THICK	48* X 76* A-36 PLAT	IE .
2 5	0 3/8° NUTS,	THD. NC. ASTM A-194	. ERABE OU
3 50	0 3/3* X 2 i	/2" CAP SCREWS, THD.	NG THE
4/	CET UD COU	on schews, inp.	NE. SAE J-429, GRAD
1/~	J. J. CHA	RGE, HANDLING, EXPED	ITING (BREAK IN CHAR
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NUMBER/REQUIREMENTS AND SHALL BE ATTESTED TO BY

PERSON(S) WHOSE FUNCTION OR POSTITION IS IDENTIFIED IN

RISTRECTIONS TO VENDOR

FOR ITEMS: 123

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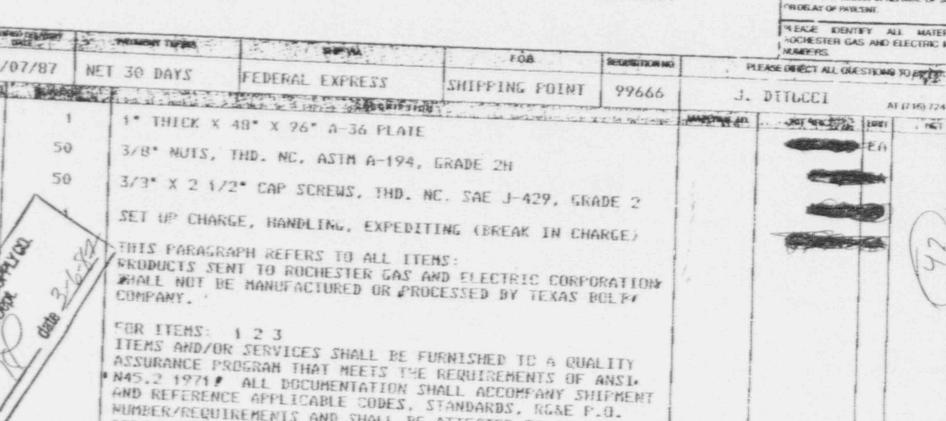
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NY STATE SALES TAX FERMED NO DEPOSIT LES ENE EMPLEMATERAND 16-05-121 ID

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PAGE -CONTINUED

Marie - 0





BEL TO-

PO 80X 40860

MOTTATE ANNES

1503 LAKE RD

DNTAGED

ROCHESTER NY 14604 SHE TO ROCHESTER GAS & ELECTRIC

ROCHESTER GAS AND ELECTRIC CORPORATION 89 EAST AVE, ROCHESTER, NY. 14649-0001

NY 14519

**PURCHASE GRDER** 

ORIGINAL

NO-10616-5-

PHENCHARE OFFICE HEE

SEPPLEMBE NO.

DATE OF OWNER 93/10/8

ALL BACKES, SHEPPING PAPERS AND I DERY ABOVE PURCHASE ORDER WAS DOMPLY MAY HE SLAT IN PEFUSAL OF !

NOTICE: YOUR PEDENAL TAX LIL HEADER MUST APPEAR ON ALL BOYOGCES

9901712-001

ENERGY STEEL AND SUFFLY CO. 2715 PALDAN DRIVE

AUBURN HILLS MI 48057

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F1-11 2016	THE PROPERTY OF THE PARTY OF TH	The same of the sa	* Foe	1= = =	PLEASE EEA ROCHESTER G MANUSERS.	NTIFY ALL MATE SAS AND ELECTRIC
03/07/87	NET 30 DAYS		and the second s	PROMINE CROWNS	PLEASE DIRECT ALL OF	LESTIONS TO BUYE
STEED IN		FEDERAL EXPRESS	SHIPPING POINT	99666	J. DIFUCCI	AT [716) 72
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	FOR TITHE					

FOR ITEMS: 123 ALL NONCONFORMANCES AND DISPOSITIONS TO THE PURCHASE ORDER REQUIREMENTS SHALL BE SUBMITTED TO REAF FOR

NOTE: PLEASE SHIP ONE PIECE OF STEEL PLATE 1" X 6" X 0 12 WITH THE MUTS AND CAP SCREWS. THE BALANCE OF THE PLATE SHOULD BE SHIPPED BY COMMON CARRIER.

THE REQUIREMENT OF COCCE FART ? APPLIES TO THIS

INSERTIRETIONS TO VENDOR

MY STATE SALES TAX PERMET NO DEGOD 121 1 56" FEMILE ATEMINO 15-06-12/10

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FAGE -CONTINUE M/ 1. 20

^{1.} COMPLETE ADMINISTREMENT DOPY AND FORMARD TO ADDRESS SHOWN THEREON. 2. SEND REL OF LADING AND SHEFFING MINO TO DESCRIPTION

^{3.} NACHTEV US PROMPTLY & TRANSE TO MAKE COMPLETE SHOWENT BY ALLOW RECOMMEDIATE 4. ALL SHEMMIS WE TO BE PROTECTIVE ONES SHE CHED

^{5.} FYREPARD PORTATION CHARGES MISS BE SHOWN AS SEPARATE ITEM ON HARDE.



BEL TO:

ROCHESTER GAS AND FLECTRIC CORPORATION 89 EAST AVE. ROCHESTER, NY. 14649-0001

**PURCHASE ORDER** ORIGINAL

P.O. BOX 40680 ROCHESTER NY. 14804

SHE TO ROCHESTER GAS & ELECTRIC GINNA STATION

1503 LAKE RD

ONTARIO

NY 14519

SHOTICE: YOUR FEDERAL TAX LD. MARKET MART APPEAR ON ALL BOYCECES

9901712-001 ENERGY STEEL AND SUPPLY CO. 2715 PALDAN DRIVE AUBURN HILLS MI 48057

DATE OF CRIDER

SUPPLEMENT NO.

03/10/87

PUNCHASS GROEN IN THE

NO-10616-B-J

ALL INVOICES, SHIPPING PAPERS AND PAC SHOW ABOVE PURCHASE DRIVER NUMBER COMPLY MAY RESIRT BY REFLESAL OF SHE OR DELAY OF PAYMENT.

PLEASE IDENTIFY ALL MATERI

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#### INSTRUCTIONS TO VENEXOR

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2. SEND BUT OF LADING AND SHIFTING WEND TO DESTRUCTION.

3. PACETE VISS PROMETLY E CHARGE TO MAKE COMPLETE SHEMENT BY ABOVE RECARDED DATE.

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BRASS STEEL - ALLOYS STANDARD & BPECIAL BOLTS NUTS, SCREWS, WASHERS SCREW MACHINE PARTS & ALLIED PRODUCTS

November 7, 1990

Mr. Robert Payton Vice President Quality Assurance 2715 Paldan Drive Auburn Hills, MI 48057

Dear Robert:

In answer to your letter dated October 23, 1990 regarding Certificates of Conformance/Compliance, and vendor audits, we have conducted an extensive search for these missing documents. At this time I gret to inform you that we have not located any of the missing documents, if they should exist at all.

should you have any questions, please do not haritate in contacting me.

Sinceruly,

John Hall

Quality Product Analyst

JH:amk

cc: David Grossman File



October 23, 1990

Mr. David Grossman Vice President and General Manager General Fastener Company 11820 Globe Road Livonia, MI 48150-1180 WORLD HEADQUARTERS
2715 PALDAN DRIVE
AUBURN HILLS, MI 48057 U.S.A.
(313) 377-4990

TELECOPY: (313) 377-2338.
TELEX: 798815
EASYLINK:: 62819432
Home of the "Duke of Nuke".

RE: Certificates of Conformance/Compliance, Vendor Audits

Dear Mr. Grossman:

As of this date Energy Steel & Supply Co. has received only one (1) of the vendor audita requested in my letter of June 23, 1990 to Mr. John Hall. It is of the utmost importance that you supply evidence of these audits as originally requested or issue written notification to ES&SC that the subject audit reports are not available, do not exist, or have not been performed in accordance with the requirements of 10 CFR 50 Appendix 3.

It has also come to our attention that several orders were supplied to ES&SC by your company with the proper mill certifications, but without a General Fastener Company Certificate of Conformance or Compliance as required by our purchase orders.

Attached you will find the listing of the seven (7) ES&SC Purchase Orders that require your submittal of Certificates of Conformance/Compliance. Please review the list and note that the applicable requirements of Title 10 of the Code of Federal Regulations Parts 50 Appendix B (10 CFR 50 Appendix B) and Part 21 (10 CFR Part 21) applies to these purchases, which will require a statement of conformance/compliance to these regulations as part of the material certification (C of C).

Thank you for your cooperation regarding the above matter. If there are any questions regarding the above do not hesitate in contacting me.

Very truly yours

Robert J. Paton Vice President, Quality Assurance

RJP/s

co: M. Mitchell

T. Fabbri

QA file

J. Armenta - USNRC

enclosure (1)



# NRC FASTENER INVESTIGATION (GENFA) 10/23/90

The following is a listing of Nuclear Safety Related (10 CFR Part 21) ES&SC Purchase Orders issued to the General Fastener Company that do not contain a General Fastener Co. Certificate of Conformance or Compliance as part of the General Fastener Co. supplied documentation or the C of C does not reference 10 CFR 50 Appendix B or 10 CFR part 21 as required by the ES&SC Purchase Order.

ESASC PO #	ORDER DATE	MTRL HT#	Manufacturer Name
*606024	05/05/86	864996	CARTECH/PRDTN.THD.PROD.
702007	02/04/87	B17867 A17328	INFASCO INFASCO
*703025	03/06/87	REF#703025	UNKNOWN GENFA COFC ONLY
704062	04/13/87	680E-366 KC8419 409964	B & G MANUFACTURING B & G MANUFACTURING B & G MANUFACTURING
706025	06/25/87	3049E	B & G MANUFACTURING
706042	06/18/871	R45418 C21157 2-36878	NIPPON FASTENER INFASCO ONO MFG/KAWASAKI STEEL
706030	06/08/87	B19022 A17458 RN0252 C21036	INFASCO INFASCO INFASCO

### NOTE:

* = General Fastener Co. C of C does not reference 10 CFR 50 Appendix B nor 10 CFR Part 21.

Purchase order numbers not preceded with "*" did not contain a GENFA C of C.