National Aeronautics and
Space Administration
Goddard Space Flight Center
Greenbelt, MD 20771

September 8, 2003

Reply to Attn of: 300

Mr. Frank Elias, Quality Assurance Manager
Eagle-Picher Technologies, LLC
3820 South Hancock Expressway
Colorado Springs, CO 80911

Dear Mr. Elias:

NASA and the Goddard Space Flight Center (GSFC) Office of Systems Safety and Mission Assurance (OSSMA) are evaluating key NASA suppliers as part of an Agency-wide Supplier Assessment Initiative. The goal of this initiative is to evaluate critical processes and procedures and to identify potential risks to NASA programs. Assessment results will be used to promote opportunities to improve the quality and reliability of current and future NASA products and services and to mitigate risks to NASA.

In support of this effort an assessment team has been formed to evaluate the processes, procedures and measures used by Eagle-Picher Technologies, LLC, Colorado Springs for the development of NASA flight products. The team will also review the Quality Management System as it applies to operations in support of NASA work. Typical areas assessed include quality management, configuration management, industrial safety, systems safety and reliability, metrology, purchasing, training, software development, workmanship, process controls, non-conformance reporting, inspection, integration and test. The assessment is scheduled for September 23 and 24, 2003. An assessment plan will follow.

We request your continued support as planning progresses. If you have any questions regarding this matter please contact the Assessment Team Lead, Mr. Randy Boss, at 562-439-7655 (Cell 562-304-6802) or Mr. Jim Dafnis of the NASA Supplier Assessment Contract (SAC) Office at 301-805-3122.

Cordially,

John M. Maristch
Manager, Supplier Assurance
Office of Systems Safety and Mission Assurance

NASA SUPPLIER INFORMATION SURVEY

PLEASE PRINT OR TYPE INFORMATION TO THE BEST OF YOUR KNOWLEDGE. FEEL FREE TO ATTACH ANY ADDITIONAL DOCUMENTATION YOU FEEL IS NECESSARY OR USEFUL.

SUPPLIER	EaglePicher Technologies, LLC	**CAGE**	50120	**PHONE NO.**	719-392-4266
ADDRESS	3820 S. Hancock Expressway	**CITY**	Colorado Springs		
STATE	CO **ZIP CODE** 80911	**WEBSITE**	www.eaglepicher.com		
Do you have a Quality Manual?	☒ YES ☐ NO	**Is your Quality Manual online?**	☐ YES ☒ NO		

Total employees: 33 **# in Quality:** 3 **# in Manufacturing** 16

Total Sq. Footage: 39000 **# of Buildings:** 3 **Hours of off-shift Operation:** ☒ 2nd Shift ☒ 3rd Shift

Facility/Safety Orientation Required? ☒ YES If YES, how long? 2-4 hours ☐ NO

Facility Badge Required: ☒ YES ☐ NO

U.S. Citizenship Required: ☒ YES ☐ NO

Personal Protection Equipment Requirements *(check all that apply)*
☐ Steel Toe Shoes ☐ Earplugs ☐ Clothing ☐ Hardhat
☐ Goggles ☐ Face Mask ☐ Other:
Are safety items furnished? ☒ YES ☐ NO

Environmental Conditions *(check all that apply)*
☐ Noise Level Considerations
☒ Chemical Considerations
☐ Other

Which of the following **OEMs** have you provided products or services for? *(Please identify OEM location and briefly describe the product and its integration to the best of your knowledge).*		Which of the following **NASA Centers** have you provided products or services for:
☒ Lockheed Martin	Sunnyvale, CA 37Ah S-NiCd Batteries	☐ NASA HQ
☒ Boeing	Torrance, CA Nickel Hydrogen Cells	☐ Ames Research Center (ARC)
☒ TRW	Hawthorne, CA 21Ah S-NiCd Batteries	☐ Dryden Flight Research Center (DFRC)
☐ United Space Alliance		☒ Glenn Research Center (GRC)
☒ Honeywell	Kansas City, MO Aircraft Batteries	☒ Goddard Space Flight Center (GSFC)
☐ Spectrum Astro		☒ Jet Propulsion Laboratory (JPL)
☒ Harris	Melbourne, FL 21Ah S-NiCd Batteries	☐ Johnson Space Center (JSC)
☐ Ball Aerospace		☐ Kennedy Space Center (KSC)
☒ Northrop Grumman / TRW	San Jose, CA 37Ah S-NiCd Batteries	☐ Langley Research Center (LSC)
☒ Orbital Sciences	Greenbelt, MD Spacetoll NiCd Batteries	☐ Marshall Space Flight Center (MSFC)
☐ Thiokol Propulsion		☐ Stennis Space Center (SSC)
☒ Other	Johns Hopkins S-NiCd Batteries	☐
☒ Other	Goodrich Aerospace 5Ah S-NiCd Cells	☐

LIST BELOW THE OPEN PURCHASE ORDERS (P.O.) or OEM/NASA SUBCONTRACT WORK
PLEASE MAKE CORRECTIONS OR UPDATES

Subcontract # or Purchase Order #	**FOR** *(i.e. OEM, NASA Center, other Government Agency)*	**PRODUCT OR SERVICE DESCRIPTION**	**SIC CODE**
S-69319-G	NASA GSFC	38ea 9Ah S-NiCd Cells	

NASA SUPPLIER INFORMATION SURVEY

RECOGNITION:

Have any of your employees been awarded any NASA recognition that you are aware of?	☐ YES ☒ NO	List:
Has your company been awarded any NASA or DOD recognition?	☒ YES ☐ NO	List: XTE-TRMM

COMPLETE THE FOLLOWING QUESTIONS AS THEY RELATE TO YOUR FACILITY (IF ATTACHING ADDITIONAL SHEETS, REFERENCE QUESTION NUMBER).

DOES YOUR FACILITY:

1	**Handle Electronic Sensitive Devices (ESD)?**	☒ YES	☐ NO	**List:**	Battery components
2	**Have an ESD Plan?**	☒ YES	☐ NO	**List:**	NASA-STD-8739.3
3	**Work to supplied drawings?**	☒ YES	☐ NO	**List:**	
4	**Perform any Special Processes?**	☒ YES	☐ NO	**List:**	Soldering, welding QC, crimping
5	**Use any computer software for manufacturing inspection, and/or test?**	☒ YES	☐ NO	**List:**	Battery and cell testing
6	**Use Government Funded Equipment or Property?** *(i.e. tooling)*	☐ YES	☒ NO	**List:**	
7	**Have Test Capabilities?** *(i.e. vibe, shock, altitude, thermal, physical, or chemical)*	☒ YES	☐ NO	**List:**	Battery and cell testing
8	**Have a shipping/packaging department?**	☒ YES	☐ NO	**If NO, list the Sub-Contractor:**	
9	**Have Clean Room capability?**	☒ YES	☐ NO	**Levels:**	M7
10	**Have Material Laboratory/Chemistry/Physics?**	☒ YES	☐ NO	**List:**	Chemistry

11	**Perform calibrations In-house?**	Mechanical ☒	Electrical ☒	Standards ☐	N/A ☐
12	**Sub-Contract calibrations?**	Mechanical ☒	Electrical ☒	Standards ☒	N/A ☐
13	**Delegate MRB?** FULL ☐	Limited ☐	Preliminary ☐	Customer Notification Only ☒	
14	**Use a Statistical Process Control (SPC)?**	YES ☐ NO ☒			
15	**Use any limited life materials?**	YES ☒ NO ☐			
16	**Use non-conformance tracking system?**	Formal ☒	Documented ☒		

IS YOUR FACILITY:

17	**ISO CERTIFIED?**	☐ YES	☒ NO	**IF YES, ISO 900**	PLEASE ATTACH COPY OF CERTIFICATE.
18	**ISO COMPLIANT**	☒ YES	☐ NO		
19	**AS9100A COMPLIANT?**	☒ YES	☐ NO		
20	**AS9100 COMPLIANT?**	☒ YES	☐ NO		
21	**Any other Certifications?**	☐ YES	☒ NO		
Please list any **NASA Certifications** your employees/facility have/has: *(i.e. NADCAP)*			NASA-STD-8739.3 Level B Instruction for Soldering		
22	**Do you use the Government Industry Data Exchange Program (GIDEP)?**			No	

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23	**Do you have a documented Safety program?**	Yes
24	**Do you plan to subcontract any of the work required in the PO?**	Yes: vibration, thermal and shock
25	**Do you have an approved supplier list? If yes, how do you maintain suppliers on the list? If no, list how you manage your suppliers?**	Yes: approved by performance
26	**Do you flow down requirements to your contractor?**	Yes: CS-QC-179 as required
27	**How do you flow down requirements?** *(i.e. Q Clauses)*	Purchase Order Attachment CS-QC-1159 and Purchase Order requirements
28	**What NASA programs have you supported?** *(i.e. MER, MRO, Hubble, etc.)*	Lunar Prospector, XTE/TRMM, Relativity, IMAGE, CONTOUR, SMEX, TOMS, FAST, NEAR, TRIANA
29	**What percentage of your total business does NASA contracts currently represent?**	10%
30	**What percentage of your total business does NASA contracts represent in the last 24 months?**	15%
31	**How long have you been in your current facility(s)?**	35 years
32	**Has your company changed ownership? Year? Explain.**	September 2003 to Electro Energy Inc.
33	**When did you last expand your current facilities?**	2002: added 9500sqft production area
34	**When did you last extensively remodel your existing facilities?**	2002
35	**When did you last expend significant resources to add capital equipment?**	2002
36	**What capabilities have you added to your company since the last audit by a NASA representative?**	Conformance to NFPA standards for electrochemicl deposition processes
37	**Do you currently have any facility or capability expansion plans?**	No
38	**Are you anticipating any major contracts in the near future? (i.e. Ordinance)**	No
39	**Are you currently bidding on any NASA programs or projects?**	Yes: CONTOUR-2
40	**What is the estimated annual percentage of your company's employee workforce turnover?**	<1%
41	**Has your employment rate increased or decreased (+/- 25%) or stayed the same, within the last three years?**	Stayed the same
42	**Are you planning any significant hiring or downsizing in the next 12 months?**	No
43	**Are you currently the target of a merger or acquisition?**	Yes: Electro Energy Inc is scheduled to acquire this business operation
44	**Are you currently in the process of merging or acquiring any other company?**	No

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45	**Do you anticipate any changes to your quality management or quality system in the next 12 months?** *(i.e. ISO/AS9100 compliant? Plan to transition to ISO 9000/2000? Do you expect to be compliant to AS9100? When?)*	No: we are confident and proud of our current product performance record with zero (0) defects
46	**Do you have a DCMA representative at your facility?** *(If so, please provide contact information)*	Yes: Mike Welsh 719-591-2170 ext 11
47	**Do you have assigned Resident Inspector at your facility?** *(If so, please provide contact information)*	No

List all products, processes or services available at your facility. **Please attach a list of your major equipment and/or NASA owned equipment *(i.e. Machine list, Capabilities list, Brochure, Catalog).***
See below…

CAPABILITIES:

Products:
- Super NiCd Batteries, Sealed NiCd, Vented NiCd & Silver Chloride-Magnesium Water Activated Batteries

Advanced NiCd Battery Processes:
- Substrate Manufacture - Dry Sintered Nickel Substrate, Slurry Sintered Nickel Substrate, Oxidized Nickel Substrates
- Electrode Manufacture - Alcoholic Electro-Chemical Nickel Electrodes, Electro-Chemical Cadmium Electrodes
- Chemical Nickel and Cadmium Electrodes
- Battery Separators - Polypropylene/PBI Separators , Zirconium Oxide/PBI Separators
- Cell Manufacture
- Cell Activation, Testing & Performance
- Battery Design, Testing & Performance

Analytical Services:
- Atomic Absorption (Graphite Furnace Equipped), Cd, Ni, Co plus 15 other elements
- Gas Chromatograph, Alcohol and volatile organics
- Kjeldahl Analysis, Ammonia
- Conductivity/Resistivity - Nanopure water system, 18 Mohm Water Generator
- Turbidity Analysis
- Wet Method Techniques, Destructive Physical Analysis, General Aqueous Systems, Sulfates

Certified Operations/Services:
- Soldering, Welding Inspection & Crimping; Mechanical Inspection, Wiring, ESD & Bonding

Facilities:
- 21,000sqft process area (sinter, deposition, etc.), 10,000sqft assembly area, 8,000sqft office and support
- 4,000sqft waste water treatment

Facilities Equipment:
- 4 Sintering Furnaces, 2 Chemical Deposition Systems & 2 Electro-chemical Deposition Systems
- Battery Separator Fabrication Equipment, Electrode Manufacturing Equipment & Cell Assembly

Tooling/Equipment:
- Battery Manufacturing Equipment, Automated Battery Test Systems, Analytical Chemical Laboratory

NASA SUPPLIER INFORMATION SURVEY

POINT OF CONTACT FOR SURVEY	Frank Elias	**PHONE NO.**	719-392-4266
TITLE	**Quality Assurance Manager**	**FAX NO.**	719-392-5103
E-MAIL ADDRESS	felias@epi-tech.com	**SURVEY COMPLETION DATE**	9-8-03

QUALITY POINT OF CONTACT *(if different from above)*		Same	
TITLE		**PHONE NO.**	
E-MAIL ADDRESS		**FAX NO.**	

ADDITIONAL POINT OF CONTACT	Dave Lucero		
TITLE	Nickel Products Manager	**PHONE NO.**	Same
E-MAIL ADDRESS	dlucero@epi-tech.com	**FAX NO.**	Same

Comments: Thank you for the opportunity to re-evaluate our facility

FW Elias
Signature of Survey Point of Contact
(Typed name is equivalent to hand signature)

NASA BELOW THIS LINE

Comments:

Date Received Initials Center/Organization

In Brief

Assessment of EaglePicher Technologies, LLC

September 23 - 24, 2003

Protecting the Public, Astronauts and Pilots, the NASA Workforce, and High-Value Equipment and Property

NASA-SAC ASSESSMENT

SUPPLIER: Eagle Picher Technologies, LLC **ASSESSMENT DATES: September 23-24, 2003**

Finding #: 1 Observation #:	Dept/Section/Lab: Quality Location: Document Control Date: 9/23/03

DESCRIPTION

The last two internal audits took place in Q3 1999 and March 2003.

ASSESSOR: R. Boss	SUPPLIER REP: F. Elias

DISCUSSION (requirements)

The internal audit procedure (cs-QC-103, rev F) requires annual internal audits.

SUPPLIER REP: F. Elias

CORRECTIVE ACTION

COMMENTS

ASSESSOR:	Date:	SUPPLIER REP:	Date:

Finding #: 2 Observation #:	Dept/Section/Lab: Quality Location: Document Control Date: 9/23/03

DESCRIPTION

An internal audit performed in March 2003 noted 40 findings, but no corrective actions were generated (as defined by the corrective action procedure). A 'Calculated Risk Release' was generated for 19 of the items in question.

ASSESSOR: R. Boss	SUPPLIER REP: F. Elias

DISCUSSION (requirements)

Section 8.2.2 of AS9100 requires that follow-up activities include the verification of activities taken and the reporting of verification results.

SUPPLIER REP: F. Elias

CORRECTIVE ACTION

COMMENTS

ASSESSOR:	Date:	SUPPLIER REP:	Date:

Finding: A determination against requirements, procedures, specifications, processes, work instructions, etc. based on objective evidence.

Observation: A determination based on industry practices.

Finding #: Observation #: 5	Dept/Section/Lab: Manufacturing Location: Plaque Inspection Area Date: 09/24/03

DESCRIPTION

Item: 1314N, Lot 4731 – Not marked "X" scraped or re-inspect on ticket. Item number not marked on outside of cabinet with other numbers. Should be yellow tagged not red tagged.

ASSESSOR: Chuck Allen/Linda Sutton	SUPPLIER REP: Frank Elias/Wanda Koran QC

DISCUSSION (requirements)

Need to complete tickets with an "X" on scrape or an "X" on re-inspect. Need to add this item # 1314N on front of cabinet.

SUPPLIER REP: FW Elias

CORRECTIVE ACTION

COMMENTS

ASSESSOR:	Date:	SUPPLIER REP:	Date:

The Lead Assessor, Randall Boss, has reviewed and assured understanding of the above findings with the eagle Picher's point of contact.

Lead Assessor _____ **Date** 9/24/03

Eagle Picher Representative FW Elias **Date** 9-24-03

Randall Boss

Lead Assessor

7515 Mission Drive, Suite A1B69
Lanham, MD 20706
rboss@dynacsmdi.com

Phone: 888-461-2145
Fax: 301-805-3118

Outbriefing

Eagle Picher Technologies, LLC

September 23-24 2003

Protecting the Public, Astronauts and Pilots, the NASA Workforce, and High-Value Equipment and Property

NSF International Strategic Registrations

789 North Dixboro Road, Ann Arbor, Michigan 48105
(888) NSF-9000

Certificate of Registration

This certifies that the Quality Management System of

Mobile Energy Products, Inc.

3820 S. Hancock Expressway
Colorado Springs, Colorado, 80911 USA

has been assessed by NSF-ISR and found to be in conformance to the following standard(s):

AS9100:2004*

(based on and including ISO 9001:2000)

**Audited in accordance with AS9104A Requirements for Certification/Registration of AQMS. NSF-ISR is accredited under the aerospace RMP.*

Scope of Registration:

Electro Energy is an engineering technology and manufacturing organization dedicated to meeting customer needs with advanced battery technologies such as, but not limited to, Nickel Cadmium, Lithium Ion, Nickel Hydrogen, Nickel Sinter Products, Thermal and their associated systems.

Industrial Classification:

IAF: 19
SIC: 3691, 3692
NACE: DL 31.4

Certificate Number: 6P481-AS1
Certificate Issue Date: 12-Jul-2007
Company Initial Date: 04-Jul-2007
Registration Date: 04-Jul-2007
Expiration Date*: 03-Jul-2010

Christian B. Lupo

Christian B. Lupo, General Manager
NSF-ISR, Ltd.

Authorized Registration and/or Accreditation Marks This certificate is the property of NSF-ISR and must be returned upon request. *Company is audited for compliance at regular intervals. To verify registration call (888) NSF-9000 or visit our web site at www.nsf-isr.org.

30% recycled post-consumer fiber

NSF International Strategic Registrations

789 North Dixboro Road, Ann Arbor, Michigan 48105
(888) NSF-9000

Certificate of Registration

This certifies that the Quality Management System of

Mobile Energy Products, Inc.

3820 S. Hancock Expressway
Colorado Springs, Colorado, 80911 USA

has been assessed by NSF-ISR and found to be in conformance to the following standard(s):

ISO 9001:2000

Scope of Registration:

Electro Energy is an engineering technology and manufacturing organization dedicated to meeting customer needs with advanced battery technologies such as, but not limited to, Nickel Cadmium, Lithium Ion, Nickel Hydrogen, Nickel Sinter Products, Thermal and their associated systems.

Industrial Classification:

IAF: 19
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Expiration Date*: 03-Jul-2010

Christian B. Lupo

Christian B. Lupo, General Manager
NSF-ISR, Ltd.

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