

ACCEPTANCE REVIEW MEMO

Licensee: Advanced Silicon Materials, Inc.

License No.: 25-27572-01

Docket No.: 030-34579

Mail Control No.: 470772

Type of Action: Amend Date of Requested Action: 11-28-05

Reviewer Assigned: Date Assigned to Reviewer: 11-30-05

Reviewer(s) Who Performed Review: Torres

Response Received	Deficiencies Noted During Acceptance Review
	1.
	2.
	3.
	4.

Reviewer's Initials: _____

Date: _____

Branch Chief's and/or SR. HP's Initials: _____

Date: _____

- ☐ Yes ☐ No Action - decommissioning notification should be issued within 30 days.
- ☐ Yes ☐ No Termination request < 90 days from date of expiration
- ☐ Yes ☐ No Action to be expedited
- _____ Medical emergency
- _____ Licensee in noncompliance (i.e. no RSO, location of use/storage not on license, radioactive material in possession not on license)
- _____ National Security
- _____ Other (_____)

Branch Chief's and/or Sr. HP's Initials: _____

Date: _____

SISP Review

☐ Yes ☒ No

Non-Publicly Available, Sensitive if any item below is checked

- _____ Radionuclides, forms, and quantities
- _____ Location of RAM
- _____ Building drawings with locations of RAM
- _____ Security of RAM (locks, alarms, etc.)
- _____ SS&D Catalog information
- _____ Specifics of Emergency Plan (routes to and from RAM, response to security events, etc.)
- _____ Safeguards Information

Branch Chief's and/or Sr. HP's Initials: R/T

Date: 11/30/05



ADVANCED SILICON MATERIALS LLC

HS&EA

119140 Rick Jones Way
Butte, MT 59702-3466
Phone: (406) 496-9841
Fax: (406) 496-9801

November 28, 2005

Ms. Jacqueline D. Cook
United States Nuclear regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

VIA FACSIMILE
(817) 860-8263

RE: License Amendment Request
Radioactive Material License No. 25-27572-01

Dear Ms. Cook:

As discussed on the phone today, I am requesting that I be added to the referenced license as the Radiation Safety Officer. In addition Mr. Terry Cummings should be removed from the license. Mr. Ray Matteson and Mr. Bill Brunell will continue as authorized users on this license.

Included in this request are copies of documents that demonstrate my ability to perform the duties of the Radiation Safety Officer. I am currently the Health Safety and Environmental manager for two facilities, Advanced Silicon Materials, located in Butte Montana, and Solar Grade Silicon LLC, located in Moses Lake, Washington. I have been the Radiation Safety Officer at the Moses lake facility for approximately eight years.

If you have any questions regarding this request, I can be reached at (406) 496 - 9749 or (509) 766-8585.

Sincerely,


Kent Stephens
Health Safety and Environmental Manager

cc:

270772

Certificate of Training

This is to certify that

Kent Stephens

Has Successfully Completed
A 40 Hour Radiation Safety Training Course
Presented by TN Technologies

Date Issued: August 4-8, 1997

TN Technologies

P.O. Box 800, Round Rock, Texas 78680-0800
Tel.: (512) 388-8100, Fax: (512) 388-9200

Heather Shepard
Course Instructor

James B. Whitworth
James B. Whitworth, Ph.D.
Director of Technical Services

TN Technologies

LETTER OF CERTIFICATION

This is to certify that Kent Stephens, of ADVANCED SILICON MATERIALS INC., has attended and successfully completed a 40 hour Industrial Radiation Safety Training course, conducted by TN Technologies Inc. on August 4-8, 1997 and described in the attached course outline. The participant received scores of 94.3% on the homework assignments and 90% on the exam, resulting in a final course grade of 92%. A course grade of 75% is considered a passing score. The class average was 89%.

The course covers fundamentals of radiation, units of dose and quality of radiation fields, hazards of radiation exposure, detection devices, regulatory controls, industrial devices and specific training on installation and leak testing of TN Technologies density, level, and weigh gauges. It is designed to meet the requirements of the Nuclear Regulatory Commission and Agreement States for Radiation Safety Officers at companies using industrial gauging devices.

This course is structured to qualify persons who complete it to understand and safely perform various operations involving nuclear devices including the installation, relocation, and leak testing of such equipment. The operations are to be performed in accordance with the rules and regulations of the United State Nuclear Regulatory Commission and/or Agreement States, and are in all respects subject to such rules and regulations.

This letter cannot be used in lieu of a specific license from, or other sanction by, an appropriate regulatory agency.

TN TECHNOLOGIES INC.

J. B. Whitworth, PhD.
Director, Technical Services

Certified by:



Ms. Heather Gepford
Sr. Project Engineer
Technical Services

TN Technologies

August 8, 1997

Mr. Kent Stephens
Environmental Engineer
ADVANCED SILICON MATERIALS INC.
3322 Road N NE
Moss Lake, WA 98837

Dear Mr. Kent Stephens:

We are pleased to confirm your successful completion of the Radiation Safety Training Course conducted August 4-8, 1997 by TN Technologies Inc.

Enclosed in this packet are your Certificate of Training, Letter of Certification, and Course Outline.

The Industrial Radiation Safety Training Course has been approved for CM points through the American Board of Industrial Hygiene. When updating your file, provide them with the following information:

Sponsor: TN Technologies, Inc.
Name of Activity: Industrial Radiation Safety Training (include the appropriate dates)
CM Points Awarded: 4.5
CM Approval No.: 8162

If additional information is required, contact Ms. Barbara A. Saalfeld, Administrative Assistant, American Board of Industrial Hygiene, 4600 W. Saginaw, Suite 100, Lansing, MI 48917-2737. She can also be reached by phone at (517) 321-2638.

Congratulations on completing the Radiation Safety Training Course. If we can be of further assistance, do not hesitate to let us know.

Sincerely,



Heather J. Gepford
Senior Project Engineer
Technical Services

Enclosures

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TN Technologies

OUTLINE 40-HOUR INDUSTRIAL RADIATION SAFETY TRAINING COURSE

Atomic Structure (1 hour)

- A. Bohr model
- B. Nuclides and notation
- C. Isotopes

Types of Radiation (2 hours)

- A. Alpha
- B. Beta
- C. Gamma and X
- D. Neutrons

Radioactive Decay (1 1/2 hours)

- A. Activity
- B. Decay schemes
- C. Decay law
- D. Half-life

Radiation Dose Units (1 hour)

- A. Roentgen
- B. Rad
- C. Rem
- D. Quality factor

Interaction of Radiation with Matter (4 hours)

- A. Ionizing vs. nonionizing
- B. Ionization and excitation
- C. Specific ionization
- D. Linear Energy Transfer
- E. Time, distance, and shielding
- F. Inverse square law

Shielding (4 hours)

- A. Alpha particle interactions
- B. Beta particle interactions
- C. Photon interactions
 - 1. Photoelectric, Compton, pair production
 - 2. Photon exposure rate; shield calculation
 - 3. Half-value layers
- D. Neutron interactions

Biological Effects (4 hours)

- A. Background Radiation
- B. Terminology
- C. Determining Low Dose Radiation Effects
- D. Physical/Chemical Mechanisms of Radiation Injury
- E. Genetic Effects
- F. Teratogenic Effects
- G. Carcinogenic Effects
- H. Acute Radiation Injury
- I. Internal Exposure to Radionuclides

Radiation Detection (2 hours)

- A. Fundamentals of detection
- B. Instrument characteristics, use, and limitations
- C. Survey meters

Personnel Monitoring (1 hour)

- A. Requirements
- B. Film badges, TLDs, etc.

Industrial (2 hours)

- A. Industrial device installation
 - 1. Requirements
 - 2. Surveying & leak testing demonstration
- B. Industrial applications

"Hands-On" At Factory (3 hours) - reviewed by qualified TN Technical Services personnel

- A. Use of portable radiation survey meters
- B. Survey of a fixed gauge
- C. Preparation of survey form
- D. Leak test of devices using QT/1S procedure

Regulatory Control (4 hours)

- A. Title 10 Code of Federal Regulations
- B. Agreement states
- C. Licensing procedures
- D. General vs specific license
- E. User responsibility

Radiation Protection Program-ALARA (4 hours)

- A. ALARA statement
- B. Radiation Protection Program
- C. Operating, safety, and emergency procedures
- D. Compliance with dose limits
- E. Employee notification
- F. Recordkeeping
- G. Posting
- H. Training
- I. Incident reporting

Shipping Radioactive Material (1 1/2 hours)

Closed-book, Written Exam on Lectures and Homework Assignments (1 1/2 hours)

Note: A minimum 1 hour of homework is assigned each evening during the course.

NOV 29 2005

Advanced Silicon Materials LLC
119140 Rick Jones Way
Butte, Montana 59702-3466
Phone: 406-
Fax: 509-766-9325

Fax

To: Jacqueline Cook

From: Kent Stephens

Fax: 817-860-8263

Pages: 6

Phone: 409-496-9749

Date: November 28, 2005

Re: License Amendment

CC:

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

DEC - 2 2005
DATE

This is to acknowledge the receipt of your letter/application dated
11-28-05, and to inform you that the initial processing,
which includes an administrative review, has been performed.

☒ There were no administrative omissions. Your application will be assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card:

The action you requested is normally processed within 90 days.

☐ A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 470772.
When calling to inquire about this action, please refer to this mail control number.
You may call me at 817-860-8103.

Sincerely,

Celena Murnahan
Licensing Assistant

(FOR LEMS USE)
INFORMATION FROM LTS

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Program Code: 03120
Status Code: 0
Fee Category: 3P
Exp. Date: 20080131
Fee Comments:
Decom Fin Assur Reqd: N
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