



**INTEGRATED SOLUTIONS FOR A SECURE FUTURE**

Licensing Assistance Team  
Division of Nuclear Materials Safety  
U.S. Nuclear Regulatory Commission, Region I  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406-2713

Br. 2

REC'D 10/24/17 PM 07:03

RE: Request to Amend License 47-35296-01/03038909

To Whom It May Concern:

The purpose of this letter is to request an amendment to NRC radioactive materials license number 47-35296-01 issued to STS International. The amended license should reflect the following:

1. While Alan Fellman will remain in the role of radiation safety officer (RSO), note that he reports to the VP of Operations.
2. Add Tim Miller, Harold Carter, and Alfonso Silva as Authorized Users. Each of these individuals has met the training requirements described in Appendix H of NUREG-1556, Vol. 18. Copies of their training certificates are provided as an attachment to this letter.
3. Replace "ATTACHMENT 2 DESCRIPTION OF STS RADIATION SAFETY PROGRAM MANUAL" submitted as part of the original application with the edited version which follows. Changes have been to better match the content with the radiation safety program manual and needs of the program.

## **ATTACHMENT 2 DESCRIPTION OF STS RADIATION SAFETY PROGRAM MANUAL**

- **Audit Program**

The STS Audit Program will be conducted in accordance with Appendix I, NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses, Program-Specific Guidance About Service Provide Licenses," dated November 2000.

- **Radiation Monitoring Instruments:**

- Criteria used in determining what radiation detection and monitoring equipment will be required for the type of measurement to be taken (count rate, dose rate, etc.):

STS will only use portable Ion Chambers, proportional counter meters, and GM detectors for dose rate measurements, which will be calibrated on an annual basis. Criteria to determine the type of meter is based on the energy of the isotope being measured and dose rate range of the meter.

- Type of use:

Meters will be used only to measure dose rates. Dose rates will be measured during radiation surveys, maintenance activities, and shipping surveys.

- Number and availability of a sufficient quantity of these calibrated radiation detection and measurement instruments:

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NUCLEAR MATERIALS-002

VACIS and Rapiscan Gantry equipment will have two meters assigned to it. There will always be at least one meter present and in calibration with the system, which can be any combination of the following meters:

- Fluke 451P Ion Chamber
- Thermo FH 40 G-L Proportional Counter
- Ludlum 3 with 44-38 energy compensated G-M probe
- Thermo RadEye G energy compensated G-M tube.

We will use instruments that meet the radiation monitoring instrument specifications published in Appendix J to NUREG-1556, Vol. 18, "Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Service Provider Licenses," dated November 2000. STS reserves the right to upgrade its survey instruments as necessary.

- **Material Receipt and Accountability**

Ordering licensed material and package receipt and opening will follow the model procedures in Appendix K of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses," dated November 2000.

- **Occupational Dosimetry**

STS will perform a prospective evaluation and determine that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20, or STS will monitor individuals in accordance with the criteria in the section entitled, "Occupational Dose" in NUREG-1556 Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses," dated November 2000.

- **Operating and Emergency Procedures**

See Appendix A of this Attachment.

- **Surveys**

STS will perform initial and annual area exposure rate surveys of our client's inspection system(s) deployed for field work.

- **Leak Tests**

Leak testing will follow the model procedures in Appendix O of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses," dated November 2000. Leak test samples will be analyzed by an appropriately licensed NRC or Agreement State laboratory.

- **Maintenance**

STS will implement and maintain procedures for conducting routine maintenance on the devices according to each manufacturer's (or distributor's) written recommendations and instructions. Individuals performing maintenance will be qualified by their training and experience to perform the activity.

- **Waste Management**

STS will not produce radioactive waste as part of its licensed activities.

## **Appendix A to Attachment 2**

### **Operating and Emergency Procedures**

**1. Obtain an agreement when performing service operations at a customer's facility.**

**2. Handling and using licensed materials.** Handling and using radioactive materials will be performed consistent with the manufacturer's instructions and consistent with the ALARA philosophy.

**3. Source/device security during storage and transportation.** The responsibility of security is with the authorized user to ensure that radioactive sealed sources are secure from unauthorized use or theft. All individuals who are authorized to enter a radiation use area have the responsibility to adhere to source security measures. These individuals may include radiation workers, non-radiation workers or others who are authorized to enter the radiation use work site.

3.1 Storage. Unless determined otherwise by the RSO or the client, radioactive sealed sources must be secured by:

- Keeping them under constant "line of sight" surveillance by a radiation worker (authorized under that approval), or
- Securing them in a locked storage container (such as a cabinet with a lock) whenever not under constant "line of site" surveillance by a radiation worker, or
- Locking the approved laboratory, or
- Placing them in approved locked, permanent storage (such as a cabinet with a lock) within an approved use or storage area/laboratory, or
- Locking them in approved transportation modes according to U.S. Department of Transportation (DOT) rules and regulations (e.g., in a locked car trunk, attached to suspension or body of vehicle without a trunk or in open truck bed, inside locked camper shell or bed cover of truck).
- STS personnel will comply fully with the security programs established by the device owners for maintaining licensed devices secure from attempts at unauthorized removal.

3.2 Transportation. STS will only provide packaging services. All transportation will be subcontracted to an authorized shipper or performed by the customer. The shipper is responsible for ensuring proper packaging preparation. *See* item 11 for information regarding packaging of material for transport.

**4. Keeping licensed material under control and immediate surveillance while in use.**

Rooms or areas containing licensed devices removed from secure storage will remain occupied. Should there be a need to leave the area(s), the licensed device will either be returned to secure storage or will be secured from unauthorized removal. The device will be secured by a lock and permanently affixed to the system such that it cannot be removed without special tools. The source will also be secured from unauthorized removal by a lock on the material's container. The device will be kept under immediate surveillance

while in use. Device users will be trained to deny access to the licensed materials to any unauthorized persons.

**5. Steps to take to keep radiation exposures ALARA.** To maintain doses As Low as Reasonably Achievable (ALARA), personnel must follow these safety procedures:

**5.1 Time: Minimize the time of exposure**

- Pre-plan and discuss the task thoroughly prior to entering the area.
- Use only the number of workers actually required to do the job.
- Have all necessary tools before entering the area.
- Use mock ups and practice runs.
- Take the most direct route to the job site.
- Never loiter in an area controlled for radiological purposes.
- Work efficiently but swiftly.
- Do the job right the first time.
- Perform as much work outside the area as possible.

**5.2 Distance: Maximize the distance between the worker and the radiation source**

- The worker should stay as far away as possible from the source of radiation.
- For point sources, the dose rate follows the inverse square law (i.e., doubling the distance from the source quarters the dose rate).
- Be familiar with radiological conditions in the area.
- During work delays, move to lower dose rate areas.
- Use remote handling devices when possible.

**5.3 Shielding: Use shielding whenever practicable.**

**6. Steps to maintain accountability during use.** STS will not take possession of licensed sources. It is the responsibility of STS's client to maintain accountability during use.

**7. Steps to control access to work sites.** It is the responsibility of STS's client to control access to work sites.

**8. Steps to take and whom to contact when an emergency occurs.** The emergency procedures in STS's Radiation Safety Program Manual cover all likely scenarios in which a radiation emergency may arise. A radiation emergency is any condition, act, or situation that causes, or is likely to cause, damage to a nuclear gauge or radioactive sealed source so as to allow radioactive material to escape from a sealed source. Any accident or fire of sufficient force or energy to cause a radiation emergency is likely to cause other property damage and may cause injuries. The sealed sources and devices that house them are designed to withstand reasonable abuse and accidents, including fire. If a fire occurs in the vicinity of a sealed source, the fire should be considered the primary danger. In the event of a radiation emergency with injured persons, the injured personnel are the first priority; radioactive contamination is a secondary concern.

When responding to a radiation emergency, response personnel should observe the following rules in addition to normal emergency procedures:

- Inform the client's and STS RSO and site security immediately if they are not already aware of the situation.
- Respond to the primary danger or injury. Render aid per normal procedures, but try not to disturb the radioactive device or spread potential contamination more than necessary.
- Keep a list of all personnel who enter the area so they may be checked for possible contamination. Keep an accurate record of events.
- Isolate the area and keep personnel as far from the radioactive source as practical. Keep personnel out of the area until the RSO or other knowledgeable authority checks for contamination.
- If off-site personnel become involved (fire, police, ambulance, hospital staff, etc.), inform them of the potential for radioactive contamination in the area or on the injured person. If possible, have an Authorized User or RSO explain the situation.
- After injured personnel are removed and the fire or other immediate cause of damage is controlled, the RSO, Authorized Users, or other qualified persons shall survey the area to ensure radiation safety.

Missing sealed sources (or devices containing a sealed source) shall be reported to the RSO and client immediately. If the RSO cannot be contacted within a reasonable time, procedures require a call to site security and the client project manager. Theft or loss of the material must be reported to the NRC as per 10 CFR § 20.2201(a)(1)(i).

**9. General health physics practices for service operations.** STS's Radiation Safety Program Manual will specify adherence to good health physics practices when performing service operations.

**10. Personnel monitoring.** Dose monitoring will be provided to STS employees consistent with NRC regulations. The RSO reserves the right to provide dose monitoring badges to any STS employee as warranted.

**11. Preparation of licensed materials for transport.** STS will package the material per DOT shipping regulations and procedures. The personnel authorized to package the material will have received formal training and a certificate to package the material. The objective when packaging the material is to ensure that the package's integrity will not be compromised during transportation. STS will not transport the material. The customer or an authorized shipper will transport the material in accordance with DOT rules and regulations. Shipping must be coordinated through the RSO and/or AU.

**12. Procedures for picking up, receiving, and opening packages containing licensed materials, in accordance with 10 CFR 20.1906.** Ordering licensed material and package receipt and opening will follow the model procedures in Appendix K of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licenses," dated November 2000.

**13. Instructions for maintaining records in accordance with the regulations and the license conditions.** All radiation safety program records will be maintained by the RSO in

*STS International, Inc.*

*1225 South Clark Street, Suite 1300 Arlington, VA 22202*

*Phone: 703-575-5180 Fax: 703-575-5181*

accordance with NRC regulations. These include three year retention of annual audit reports, restricted area surveys, survey meter calibration certificates, and leak test certificates. Dosimetry records, ALARA investigations, and documents related to incidents will be maintained until license termination.

**14. Procedures for identifying and reporting to NRC defects and noncompliance as required by 10 CFR 21.21(a).**

**14.1 Evaluation of deviations and failures to identify defects and failures.**

14.1.1 All Radiation Workers will report any defect or failure to the RSO and/or AU that occurred during maintenance and repair activities performed under the NRC license.

14.1.2 Evaluations of an identified deviation or failure to comply potentially associated with a substantial safety hazard will be completed within 60 days from discovery of the deviation or failure to comply.

**14.2 Notification. The STS RSO will notify the NRC when he or she obtains information indicating a device defect related to a licensed source.**

14.2.1 Initial Notification. STS will notify the NRC Operations Center by facsimile at (301) 816 - 5151 or by telephone at (301) 816 - 5100 within two days following receipt of information identifying a defect or a failure to comply. Verification that the facsimile has been received should be made by calling the NRC Operations Center.

14.2.2 Written Report. A written report shall be sent within 30 days of receipt of information identifying the defect or a failure to comply. The written report shall include, to the extent known:

14.2.2.1 Name and address of the individual or individuals informing the NRC.

14.2.2.2 Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

14.2.2.3 Identification of the firm supplying the basic component which fails to comply or contains a defect.

14.2.2.4 Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

14.2.2.5 The date on which the information of such defect or failure to comply was obtained.

14.2.2.6 The number and location of defective components in use at the STS client facilities.

14.2.2.7 The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

14.2.2.8 Any advice related to the defect or failure to comply.

The table on the following page summarizes NRC reporting requirements.

<b>Event</b>	<b>Telephone Notification</b>	<b>Written Report</b>	<b>Regulation</b>
Theft or loss of material	Immediate	30 days	10 CFR 20.2201(a)(1)(i)
Whole body dose greater than 0.25 Sv (25 rems)	Immediate	30 days	10 CFR 20.2202(a)(1)(i)
Extremity dose greater than 2.5 Sv (250 rems)	Immediate	30 days	10 CFR 20.2202(a)(1)(iii)
Whole body dose greater than 0.05 Sv (5 rems) in 24 hours	24 hours	30 days	10 CFR 20.2202(b)(1)(i)
Extremity dose greater than 0.5 Sv (50 rems) in 24 hours	24 hours	30 days	10 CFR 20.2202(b)(1)(iii)
Whole body dose greater than 0.05 Sv (5 rems)	None	30 days	10 CFR 20.2203(a)(2)(i)
Dose to individual member of public greater than 1 mSv (100 mrems)	None	30 days	10 CFR 20.2203(a)(2)(iv)
Defect in equipment that could create a substantial safety hazard	2 days	30 days	10 CFR 21.21(d)(3)(i)
Filing petition for bankruptcy under 11 U.S.C.	None	Immediately after filing	10 CFR 30.34(h)
Expiration of license	None	60 days	10 CFR 30.36(d)
Decision to permanently cease licensed activities at entire site	None	60 days	10 CFR 30.36(d)
Decision to permanently cease licensed activities in any separate building or outdoor area that is unsuitable for release for unrestricted use	None	60 days	10 CFR 30.36(d)
No principal activities conducted for 24 months at the entire site	None	60 days	10 CFR 30.36(d)
No principal activities conducted for 24 months in any separate building or outdoor area that is unsuitable for release for unrestricted use	None	60 days	10 CFR 30.36(d)
Event that prevents immediate protective actions necessary to avoid exposure to radioactive materials that could exceed regulatory limits	Immediate	30 days	10 CFR 30.50(a)
Equipment is disabled or fails to function as designed when required to prevent radiation exposure in excess of regulatory limits	24 hours	30 days	10 CFR 30.50(b)(2)
Unplanned fire or explosion that affects the integrity of any licensed material or device, container, or equipment with licensed material	24 hours	30 days	10 CFR 30.50(b)(4)
<b>Note:</b> Telephone notifications shall be made to the NRC Operations Center at (301) 816-5100 or (301) 951-0550.			



Corporate Radiation Safety Officer contact information:

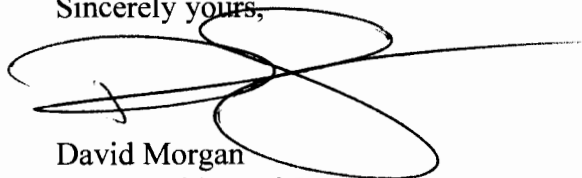
Alan Fellman

Phone: 301-674-7447

Email: [alan.fellman@nv5.com](mailto:alan.fellman@nv5.com)

Thank you for your attention to this amendment request.

Sincerely yours,

A handwritten signature in black ink, appearing to be 'David Morgan', with a large, stylized flourish extending to the right.

David Morgan  
Vice President of Operations  
STS International, Inc.

Encl: AU training certificates

# Certificate of Training

Awarded To

***Timothy Miller***

Recognizing completion of 40 hours of specialized instruction in

**Radiation Safety Officer**

**May 13, 2016**

Presented By

***Dade Moeller Training Academy***

438 N. Frederick Avenue, Suite 220, Gaithersburg, MD 20877

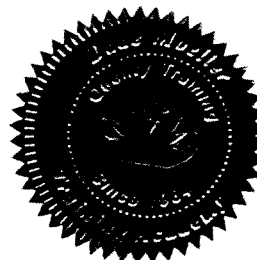
[www.moellerinc.com/academy](http://www.moellerinc.com/academy) -- 301-990-6006

AAHP has awarded this course 40 Continuing Education Credits, 2014-00-051 (AS-289)

ABIH Diplomates can claim this course for 40 hours in the IH CM Area



Alan L. Fellman, PhD, CHP



**Harold Carter**

*Has successfully completed the 40 hour technical short course entitled*

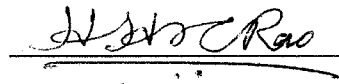
**Radiation Safety Officer**

*July 23, 2012 – July 27, 2012*

*This certificate presented in Arlington, Texas, July 27, 2012*

*By Nevada Technical Associates, Inc.*

Approval codes for C.E. units are: ASRT 30.5 units: NVZ0146001, AAHP 32 units: 2008-00-005, ABIH 4.5 units: 08-1362



**Hermon Rao**

*Instructor*

**Certificate Number: 1343026833**

# Academy of Health Sciences, US Army Diploma

SGT TIMOTHY MILLER

has successfully completed the

HEALTH PHYSICS SPECIALTY COURSE  
322-N4

Fort Sam Houston, Texas  
6 August 2001 to 1 November 2001

*James W. Kirkpatrick*  
JAMES W. KIRKPATRICK  
Colonel, MC  
Dean, AHS

# Certificate of Training

Awarded To

***Alfonso Silva***

Recognizing completion of 40 hours of specialized instruction in

**Radiation Safety Officer**

**January 15, 2016**

Presented By

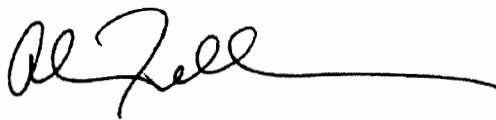
***Dade Moeller Training Academy***

438 N. Frederick Avenue, Suite 220, Gaithersburg, MD 20877

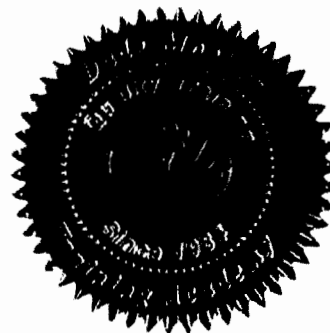
[www.moellerinc.com/academy](http://www.moellerinc.com/academy) -- 301-990-6006

AAHP has awarded this course 40 Continuing Education Credits, 2014-00-051 (AS-289)

ABIH Diplomates can claim this course for 40 hours in the IH CM Area



Alan L. Fellman, PhD, CHP





## ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

## Name and Address of Applicant and/or Licensee

STS International, Inc.  
ATTN: David Morgan, Vice President, Operations  
1225 South Clark Street  
Suite 1300  
Arlington, VA 22202

## Date

October 30, 2017

## License Number(s)

47-35296-01

## Mail Control Number(s)

601492

## Licensing and/or Technical Reviewer or Branch

Commercial, Industrial, R&D, & Academic Branch  
(Branch 2)

This is to acknowledge receipt of your: ☒ Letter and/or ☐ Application Dated: Undated

The initial processing, which included an administrative review, has been performed.

☒ Amendment ☐ Termination ☐ New License ☐ Renewal

☐ There were no administrative omissions identified during our initial review.

☒ This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

☐ Your application for a new NRC license did not include your taxpayer identification number. Please complete and submit NRC Form 531, Request for Taxpayer Identification Number, located at the following link: <http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf>  
Follow the instructions on the form for submission.

☒ The following administrative omissions have been identified:

The letter is not dated.

Your application has been assigned the above listed MAIL CONTROL NUMBER. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

Region I  
U. S. Nuclear Regulatory Commission  
Division of Nuclear Materials Safety  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406-2713  
(610) 337-5260, (610) 337-5313,  
(610) 337-5398, or (610) 337-5239