

**U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV**

Docket: 030-39036

License: 29-35415-01E

Report: 2018-001

EA No.: EA-18-123

Licensee: Solis Tek, Incorporated

Location Inspected: 853 Sandhill Avenue  
Carson, CA 90746

Inspection Dates: July 9, 2018, through August 22, 2018

Exit Meeting Date: January 8, 2019

Inspector: Randy Erickson, Health Physicist  
Materials Licensing and Inspection Branch

Approved by: Michael C. Hay, Chief  
Materials Licensing and Inspection Branch

Attachment: Supplemental Inspection Information

## **EXECUTIVE SUMMARY**

### **Solis Tek, Incorporated NRC Inspection Report 030-39036/2018-001**

#### **Program Overview**

Solis Tek, Incorporated (Solis Tek) is authorized under NRC Materials License 29-35415-01E to distribute halide lamps equipped with arc tubes containing no more than 30 microcuries of krypton-85, to persons who are exempt from the requirements under 10 CFR 30.15(a)(8), or equivalent regulations of any Agreement State. The licensee may only distribute licensed material as specified in the license, and from locations authorized on the license. Between January 2014 and February 5, 2018, Solis Tek distributed licensed material from locations in New Jersey and California that were not authorized by a license. (Section 1)

#### **Inspection Findings**

The NRC identified one willful apparent violation, and three additional non-willful apparent violations regarding Solis Tek's: (1) willful failure to obtain an NRC license authorizing distribution of licensed material to unlicensed persons prior to beginning distribution, (2) non-willful failure to obtain a specific license pursuant to 10 CFR 32.14 authorizing the transfer of licensed material to unlicensed persons prior to making such transfers, (3) non-willful failure to receive authorization to import radioactive material into the United States by a general or specific license under the regulations in 10 CFR Part 110, prior to importing such material, and (4) non-willful failure to submit a timely annual report for 2017 on or before January 31, 2018, which contained complete and accurate information. (Section 3)

#### **Corrective Actions**

Solis Tek's corrective actions included short term corrective actions to obtain the required licenses, and to submit the required annual report. Long term corrective actions for all the violations, including the willfulness, were not yet identified. (Section 4)

## REPORT DETAILS

### 1 Program Overview (87128)

#### 1.1. Program Scope

Solis Tek, Incorporated (Solis Tek) is authorized under NRC Materials License 29-35415-01E to distribute halide lamps equipped with arc tubes containing no more than 30 microcuries of krypton-85, to persons who are exempt from the requirements under Title 10 of the *Code of Federal Regulations* (10 CFR 30.15(a)(8), or equivalent regulations of any Agreement State. The licensee may only distribute licensed material as specified in the license, and from locations authorized on the license.

#### 1.2. Observations and Findings

Between 2014 and 2018, Solis Tek has imported and distributed halide grow lamps, each containing microcurie quantities of krypton-85, to persons who are exempt from licensing, without having applied for and received an Agreement State or Nuclear Regulatory Commission (NRC) issued possession license and an NRC issued exempt distribution license.

### 2 Background Information

Solis Tek is a company that in part, imports and distributes halide grow lamps, each containing microcurie quantities of krypton-85, to persons who are exempt from licensing. By 2014 Solis Tek had established possession and distribution locations on Leuning Street in South Hackensack, New Jersey (NJ) and on Keegan Avenue in Carson California (CA), and had begun importing and distributing bulbs to and from each of these locations without NJ and CA possession licenses authorizing possession of material, or an NRC exempt distribution license authorizing distribution to individuals exempt from licensing from these locations. Solis Tek's import activities were originally identified in March 2015 when U.S. Customs and Border Protection (Customs) identified a shipment of lamps containing krypton-85 that had arrived at a New Jersey port and was to be delivered to Solis Tek. Customs identified that Solis Tek did not have a license to possess the material. A hold was placed on the delivery and the New Jersey Radiation Control Program (NJ Program) was notified. The NJ Program, after working with Solis Tek, eventually issued a possession license to Solis Tek on May 14, 2015. Customs then released the shipment.

During the NJ license application and review process in 2015, the NJ Program informed Solis Tek that, in addition to the requirement to have a NJ possession license, there was also a requirement to obtain an NRC issued exempt distribution license. The NJ Program also notified the NRC that Solis Tek was distributing material. From 2015 to 2017, both the NJ Program and the NRC made repeated notifications to Solis Tek, informing them that they could not distribute the lamps without first having received an NRC exempt distribution license. Prompted by conversation with both the NJ Program and NRC, on February 24, 2017, Solis Tek applied for an NRC exempt distribution license. On July 20, 2017, the NRC issued exempt distribution license 29-35415-01E, which authorized only the NJ location.

On June 20, 2017, an NRC investigation was initiated into the activities of Solis Tek. The investigation (OI-1-2017-017) substantiated that Solis Tek deliberately imported and distributed halide grow lamps containing krypton-85 units without an exempt distribution license, from February 24, 2017 through July 19, 2017.

On January 31, 2018, the calendar year 2017 annual distribution report required under 10 CFR 32.16(a) and (c)(1) was due to the NRC. On June 15, 2018, Solis Tek submitted their first report covering distribution for calendar years 2016 and 2017. The NRC's review of the report identified that it did not contain all of the information required under 10 CFR 32.16, including the radionuclide in each type of product, the model number of each of the products, and the total quantity of the radionuclide distributed in accordance with 10 CFR 32.16(b)(2). The report also failed to identify that the products were transferred for use under 10 CFR 30.15 giving the specific paragraph designation in accordance with 10 CFR 32.16(a)(2).

On January 11, 2018, the licensee submitted a request to amend the NRC exempt distribution license to add the Keegan Ave, Carson CA location. On February 6, 2018, the NRC issued Amendment 1 to the exempt distribution license to add the Keegan Ave location.

In July 2018, the NRC attempted to perform an initial inspection at the NJ location and noted that Solis Tek was no longer at this location. Therefore, the NRC attempted to perform an inspection at the Keegan Ave, Carson CA location listed on the license. In contacting Solis Tek to announce the inspection, Solis Tek informed the inspector that in early July 2018, Solis Tek closed the NJ and Keegan Ave, CA locations and moved all existing inventory to the Sandhill Ave, Carson CA location. The NRC performed the initial inspection on July 9, 2018, at the Sandhill Ave location.

Based on the investigation and inspection, the NRC identified that Solis Tek had a General Manager (GM) for the East facility (NJ) and a separate GM for the West facility (CA). The West GM appears to have understood the need for, and obtained, a CA possession license, by virtue of the East GM getting the NJ possession license. However, it appears that there was not adequate communications from the East GM to the West GM, nor to Solis Tek owners, regarding the requirements for licensing, in particular, the distinction that there were both state requirements (need a possession license) and federal requirements (need a distribution license and submission of the annual reports). In addition, once the distribution license was obtained, the East GM maintained oversight, apparently resulting in the Keegan Avenue, CA location not being added. As of the July 2018 inspection, Solis Tek was closing the East facility. The East GM had declined to move to the West facility, and was no longer employed with Solis Tek.

During the July 2018 inspection, Solis Tek was told by the inspector that they needed to amend both the CA possession license and NRC exempt distribution license to add the Sandhill location. The Chief Compliance Officer in CA stated that in mid-June, 2018, Solis Tek had requested an amendment to change the CA possession license from Keegan to Sandhill. Solis Tek did not wait to receive the amendment before moving material to the Sandhill location. Prompted by the inspector, Solis Tek called the CA Radiologic Health Branch on July 10, 2018 to request expedited action on its amendment request. On July 10, 2018, CA issued an amended license to change the location from Keegan Avenue to Sandhill Avenue. On July 10, 2018, Solis Tek

submitted the amended CA license to NRC to complete a June 4, 2018 request that NRC remove the NJ and Keegan Avenue, Carson, CA locations, and add the Sandhill Avenue, Carson, CA location to the exempt distribution license. On July 12, 2018, the NRC distribution license was amended to change to the Sandhill location.

On August 13 and 22, 2018, Solis Tek provided, via email to NRC, additional information and spreadsheets regarding dates, locations, and numbers of imports and distributions.

### **3. Inspection Findings (87128)**

#### **3.1 Inspection Scope**

On July 9, 2018, an initial inspection of the licensee was performed at the licensee's Sandhill Avenue location in Carson, CA. This was an announced inspection of a licensee authorized for distribution of exempt products to individuals exempt from licensing under 10 CFR 32.14. The inspection was performed under Inspection Procedure 87128 and was limited to distribution activities only. The licensee also held a valid California possession license 8164-19, although not for the current location.

#### **3.2 Observation and Findings**

Solis Tek is authorized to distribute halide lamps (grow lamps) equipped with arc tubes with each tube containing not more than 30 microcuries of krypton-85 per tube to persons who are exempt from the requirements under 10 CFR 30.15(a)(8).

The licensee has a general training program for those workers who receive and handle the grow lamps. Workers understand the hazards of the material and how to respond if any of the lamps are damaged. At the time of the inspection, the contact person for the license was the Chief Compliance Officer. The Chief Compliance Officer is knowledgeable of the scope of use and in general radiation safety principles. The licensee has safety procedures in place.

Through a review and discussion of their distribution activities, the licensee stated they have not modified the design characteristics of any of the products that have been authorized for distribution under the license and they are not distributing any products other than those that have been authorized for distribution under the license. The grow lamps observed were labeled with the isotope, and the packaging is also labeled and shipped in the same manner authorized under the license.

Annual distribution reports were also discussed with the licensee. The licensee provided copies of distribution reports for 2016 and 2017. Each of the reports contained minimal information and did not appear to contain all the information required by regulation.

At the time of the inspection, it was noted that the Sandhill Avenue location was not authorized as a distribution location on the license. Discussions with the licensee found that they had moved to the Sandhill Avenue location from the Keegan Avenue location approximately one week prior to the date of the inspection. When asked if they had distributed any lamps from the unauthorized Sandhill Avenue location, the Chief Compliance Officer stated that he believed they had, but could not confirm that without researching it. Subsequent research found that they had not distributed any grow lamps from the new location during this period.

Based on the investigation and inspection the following apparent violations were identified:

- 10 CFR 30.3(a), "Activities requiring license" states, in part, that "no person shall manufacture, produce, transfer, receive, acquire, own, possess, or use byproduct material except as authorized in a specific or general license issued in accordance with the regulations in this chapter."
- 10 CFR 30.15(a)(8)(iv), states, in part, that there is an exemption to the requirement for a license in 10 CFR 30.3(a) for persons who receive, possess, use, transfer, own or acquire electron tubes containing not more than specified quantities of byproduct material. However, the exemption in 10 CFR 30.15(a) excludes "persons... who initially transfer for sale or distribution" such electron tubes.
- 10 CFR 30.15(b) states, in part, that any person who desires to initially transfer for sale or distribution the products exempted in 10 CFR 30.15(a) should apply for a specific license pursuant to 10 CFR 32.14, which license states that the product may be distributed by the licensee to persons exempt from the regulations pursuant to 10 CFR 30.15(a).
- Contrary to the above, Solis Tek willfully distributed material to unlicensed persons without an NRC license to distribute. Specifically, from February 24, 2017 through July 19, 2017, Solis Tek willfully transferred for sale or distribution from the New Jersey location, approximately 1785 Kr-85 bulbs containing byproduct material to unlicensed persons without obtaining a specific license pursuant to 10 CFR 32.14 authorizing such transfers. (030-39036/2018-001-01)
- 10 CFR 30.3(a), "Activities requiring license" provides, in part, that "no person shall manufacture, produce, transfer, receive, acquire, own, possess, or use byproduct material except as authorized in a specific or general license issued in accordance with the regulations in this chapter."
- 10 CFR 30.15(a)(8)(iv), provides an exemption to the requirement for a license in 10 CFR 30.3(a) for persons who receive, possess, use, transfer, own or acquire electron tubes containing not more than specified quantities of byproduct material. However, the exemption in 10 CFR 30.15(a) excludes "persons who initially transfer for sale or distribution" such electron tubes.
- 10 CFR 30.15(b) provides, in part, that any person who desires to initially transfer for sale or distribution the products exempted in 10 CFR 30.15(a) should apply for a specific license pursuant to 10 CFR 32.14, which license states that the product may be distributed by the licensee to persons exempt from the regulations pursuant to 10 CFR 30.15(a).
- Contrary to the above, Solis Tek distributed material to unlicensed persons without obtaining a specific license pursuant to 10 CFR 32.14 authorizing such transfers. Specifically, from January 2014 through February 5, 2018, Solis Tek initially transferred for sale or distribution from the Keegan Avenue, Carson, CA location, approximately 80,000 Kr-85 bulbs containing byproduct material to unlicensed

person without obtaining a specific license pursuant to 10 CFR 32.14 authorizing such transfers. In addition, from November 2014 through February 23, 2017, Solis Tek initially transferred for sale or distribution from the NJ location, approximately 11,913 Kr-85 bulbs containing byproduct material to unlicensed persons without obtaining a specific license pursuant to 10 CFR 32.14 authorizing such transfers. (030-39036/2018-001-02).

- 10 CFR 110.5 states, in part, that no person may export any nuclear equipment or material listed in 10 CFR 110.8 and 10 CFR 110.9, or import any nuclear equipment or material listed in 10 CFR 110.9a, unless authorized by a general or specific license issued under 10 CFR Part 110.
- 10 CFR 110.9a(d) provides, in part, a list of nuclear equipment and material under NRC import licensing authority, includes byproduct material (i.e. krypton-85).
- 10 CFR 110.20(a) states, in part, that a person may use an NRC general license as authority to export or import nuclear equipment or material, if the nuclear equipment or material to be exported or imported is covered by the NRC general licenses described in 10 CFR 110.21 through 10 CFR 110.27. If an export or import is not covered by the NRC general licenses described in 10 CFR 110.21 through 10 CFR 110.27, a person must file an application with the Commission for a specific license in accordance with 10 CFR 110.31 through 10 CFR 110.32.
- 10 CFR 110.27(a) states, in part, that except as provided in 10 CFR 110.27(b) and 10 CFR 110.27(c), a general license is issued to any person to import byproduct, source, or special nuclear material if the U.S. consignee is authorized to receive and possess the material under the relevant NRC or Agreement State regulations.
- Contrary to the above, Solis Tek imported byproduct material into the United States without being authorized by a general or specific license issued under the regulations in 10 CFR Part 110. Specifically, on November 21, 2014, Solis Tek imported approximately 1804 bulbs, and on January 28, 2015 imported approximately 5028 bulbs, containing Kr-85, manufactured by Zhuhai Relite Tech Co., Ltd. in China, to their NJ location without having a possession license issued by the NRC or an Agreement State for that location, or without first obtaining a specific import license from the NRC. In addition, on approximately 38 occasions from January 8, 2014 to October 6, 2017, the licensee imported a total of approximately 82,885 bulbs containing Kr-85, manufactured by Zhuhai Relite Tech Co., Ltd. in China, to their Keegan Avenue, Carson, CA location without having a possession license issued by the NRC or an Agreement State for that location, or without first obtaining a specific import license from the NRC. (030-39036/2018-001-03).
- 10 CFR 32.16(a) and (c)(1) require, in part, that each person licensed shall maintain records of all transfers of byproduct material and shall file a report, covering the preceding calendar year, on or before January 31 of each year.
- 10 CFR 32.16(a) and (b) require, in part that the report: (a)(1) must include the license number; (a)(2) must indicate that products are transferred for use under

10 CFR 30.15, giving the specific paragraph designation; and (b)(2) must include for each radionuclide in each type of product and each model number, if applicable, the total quantity of the radionuclide.

- Contrary to the above, the licensee representative failed to submit annual reports for 2017 on or before January 31 of the following year. In addition, the licensee's report filed on June 15, 2018 failed to include the following required information: (1) that the products were transferred for use under 10 CFR 30.15 giving the specific paragraph designation; and (2) the radionuclide in each type of product and each model number; and the total quantity of the radionuclide. (030-39036/2018-001-04)

### 3.3 Conclusions

The NRC identified one willful apparent violation, and three additional non-willful apparent violations regarding Solis Tek's: (1) willful failure to obtain an NRC license authorizing distribution of licensed material to unlicensed persons prior to beginning distribution, (2) non-willful failure to obtain a specific license pursuant to 10 CFR 32.14 authorizing the transfer of licensed material to unlicensed persons prior to making such transfers, (3) non-willful failure to receive authorization to import radioactive material into the United States by a general or specific license under the regulations in 10 CFR Part 110, prior to importing such material, and (4) non-willful failure to submit a timely annual report for 2017 on or before January 31, 2018, which contained complete and accurate information.

## 4. **Corrective Actions**

Solis Tek's corrective actions completed included the following:

- On February 24, 2017, the licensee submitted an application for an NRC exempt distribution license. On July 20, 2017, the NRC issued an exempt distribution license for the NJ location.
- On January 11, 2018, the licensee submitted a request to amend the NRC exempt distribution license to add the Keegan Ave, Carson CA location. The request did not include a copy of a CA possession license at that location, therefore the request could not be processed. The licensee submitted the CA possession license for the Keegan Ave location. On February 6, 2018, the NRC issued Amendment 1 to the exempt distribution license to add the Keegan Ave location.
- On July 10, 2018, the licensee obtained an amended CA license to add the Sandhill location, and submitted it to the NRC with a request to remove the NJ and Keegan Avenue, Carson, CA locations, and add the Sandhill Avenue, Carson, CA location to the NRC exempt distribution license. On July 12, 2018, the NRC distribution license was amended to change to the Sandhill location.
- On March 10, 2015, Solis Tek requested a possession license for the NJ location, which NJ issued on May 14, 2015.
- Solis Tek requested and on October 10, 2017, CA issued a possession license for the first CA location (Keegan).

- Solis Tek requested and on July 10, 2018, CA issued a possession license amended to change to second location (Sandhill).
- On June 15, 2018, the licensee submitted the annual report (note: the report was late, the report was due by January 31, 2018).

Long term corrective actions for all the violations, including the willfulness, were not yet identified.

## **5 Exit Meeting Summary**

The inspector presented the preliminary inspection findings at the conclusion of the on-site inspection in July 9, 2018; present at the preliminary exit meeting were:

- Stanley Teeple, Chief Compliance Officer (no longer with the company, but currently retained as a consultant)
- Alvin Hao, Cofounder and Executive Vice President
- Tiffany Davis, Chief Operating Officer
- Joni Thomas, Director of Special Projects

On January 8, 2019, a final telephonic exit meeting was conducted by Hipolito Gonzalez, Chief, Materials Safety Licensing Branch, Division of Materials Safety, Security, State, and Tribal Programs; present at the final exit meeting were:

- Alvin Hao, Cofounder and Executive Vice President
- Joni Thomas, Director of Special Projects

The licensee acknowledged the inspection findings and did not dispute any of the details presented during the final exit meeting.

## SUPPLEMENTAL INSPECTION INFORMATION

### PARTIAL LIST OF PERSONS CONTACTED

Stanley Teeple, Chief Compliance Officer

### INSPECTION PROCEDURES USED

87128 Manufacturing and Distribution of Exempt Products

### ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened

030-39036/2018-001-01	APV	The failure to obtain an NRC license authorizing distribution of licensed material to unlicensed persons prior to beginning distribution.
030-39036/2018-001-02	APV	The failure to obtain a specific license pursuant to 10 CFR 32.14 authorizing the transfer of licensed material to unlicensed persons prior to making such transfers.
030-39036/2018-001-03	APV	The failure to receive authorization to import radioactive material into the United States by a general or specific license under the regulations in 10 CFR Part 110, prior to importing such material.
030-39036/2018-001-04	APV	The failure to submit a timely annual report for 2017 on or before January 31, 2018, which contains complete and accurate required information.

#### Closed

None

#### Discussed

None

### LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CFR	<i>Code of Federal Regulations</i>
NRC	Nuclear Regulatory Commission

PEC  
APV

Predecisional Enforcement Conference  
Apparent Violation