

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 70 and 71, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

| | | | |
|---|----------------------------------|---|---|
| Licensee 1. Adanta, Inc. 2. 1801 Oak Street Napa, CA 94559 | | In accordance with application dated February 08, 2018; email dated June 20, 2019; and letter dated June 20, 2019 | 4. Expiration Date: September 30, 2034 |
| | | | 5. Docket No.: 030-39161 Reference No.: |
| 6. Byproduct, source, and/or special nuclear material | 7. Chemical and/or physical form | 8. Maximum amount that licensee may possess at any one time under this license | 9. Authorized use |
| A. Any byproduct material with Atomic Numbers 1 through 83 | A. Any | A. No Possession Authorized | A. Health physics support, site characterization, decontamination and decommissioning of facilities and equipment. Packaging and repackaging of customer radioactive waste for transport. Radiation protection or health physics training and instruction. Environmental sample collection. Remediation of soil or soil-like material and radiation surveys. |

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
04-35535-01Docket or Reference Number
030-391616. Byproduct, source,
and/or special nuclear
material

7. Chemical and/or physical form

8. Maximum amount that licensee
may possess at any one time
under this license

9. Authorized use

B. Strontium-90

B. Any

B. No Possession Authorized

B. Health physics support, site
characterization, decontamination and
decommissioning of facilities and
equipment. Packaging and repackaging
of customer radioactive waste for
transport.Radiation protection or health physics
training and instruction. Environmental
sample collection. Remediation of soil
or soil-like material and radiation
surveys.C. Any byproduct material
with Atomic Numbers 84
through 103

C. Any

C. No Possession Authorized

C. Health physics support, site
characterization, decontamination and
decommissioning of facilities and
equipment. Packaging and repackaging
of customer radioactive waste for
transport.Radiation protection or health physics
training and instruction. Environmental
sample collection. Remediation of soil
or soil-like material and radiation
surveys.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
04-35535-01Docket or Reference Number
030-39161

- | | | | |
|---|----------------------------------|---|---|
| 6. Byproduct, source, and/or special nuclear material | 7. Chemical and/or physical form | 8. Maximum amount that licensee may possess at any one time under this license | 9. Authorized use |
| D. Thorium-232 | D. Metal | D. No Possession Authorized. Solid metal alloys and solid thorium fluoride coatings on optical systems. | D. Health physics support, site characterization, decontamination and decommissioning of facilities and equipment. Packaging and repackaging of customer radioactive waste for transport. Radiation protection or health physics training and instruction. Environmental sample collection. Remediation of soil or soil-like material and radiation surveys. |
| E. Any Source Material | E. Sealed or plated sources | E. No Possession Authorized. Foils or plated sources, sealed sources and solid metal. | E. Health physics support, site characterization, decontamination and decommissioning of facilities and equipment. Packaging and repackaging of customer radioactive waste for transport. Radiation protection or health physics training and instruction. Environmental sample collection. Remediation of soil or soil-like material and radiation surveys. |

CONDITIONS

10. Licensed material may be used or stored only at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material, including areas of exclusive Federal jurisdiction within Agreement States.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
04-35535-01Docket or Reference Number
030-39161

If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

11. Licensed material shall only be used by, or under the supervision of, individuals who have received the training described in the application dated February 8, 2019, and have been designated in writing by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
12. The Radiation Safety Officer (RSO) for this license is Gaetano Taibi, CHP.
13.
 - A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State. In the absence of a registration certificate, sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months, or at such other intervals as specified.
 - B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
 - C. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
 - D. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
04-35535-01Docket or Reference Number
030-39161

- E. Sealed sources need not be tested if they are in storage and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The leak test shall be capable of detecting the presence of 185 becquerels (0.005 microcuries) of radioactive material on the test sample. If the test reveals the presence of 185 becquerels (0.005 microcuries) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- G. Analysis of leak test samples and/or contamination shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is authorized to collect leak test samples but not perform the analysis.
- H. Records of leak test results shall be kept in units of becquerels (microcuries) and shall be maintained for 3 years.
14. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 3 years from the date of each inventory, and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
15. The licensee does not take possession of the radioactive materials while at the customer's facility except for analytical samples.
16. The licensee may not take ownership or possession of radioactive material(s) and/or source(s) originating from a client's site, without prior notification and written approval from the U.S. Nuclear Regulatory Commission.
17. Except for calibration sources, reference standards, and radioactively contaminated equipment owned by the licensee, receipt, storage, and use incidental to any activity of licensed material at each temporary job site shall be limited to material originating from each site. This material must either be transferred to an authorized recipient or remain at the site after licensee activities are completed.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
04-35535-01Docket or Reference Number
030-39161

18. Notwithstanding the requirements in 10 CFR 30.32(i), 40.31(j), and 70.22(i), the licensee is not required to establish an emergency plan. Before taking possession of licensed material at a temporary job site in quantities requiring an emergency plan, the licensee shall either:
- A. Obtain U.S. Nuclear Regulatory Commission approval of an evaluation demonstrating that an emergency plan is not required pursuant to 10 CFR 30.32(i), 40.31(j), and 70.22(i), or
 - B. Submit written confirmation to the U.S. Nuclear Regulatory Commission in accordance with Appendix D of 10 CFR part 20, that licensee personnel have been trained and will follow the provisions of an existing emergency plan approved by the U.S. Nuclear Regulatory Commission or an Agreement State for the temporary job site.
19. Sealed sources, source rods, foil sources, or detector cells containing licensed material shall not be opened or sources removed from source holders or detached from source rods, or foil sources removed from detector cells by the licensee, except as specifically authorized.
20. This license does not authorize the use of licensed material at temporary job sites for uses already specifically authorized by a customer's license. If a customer also holds a license issued by the U.S. Nuclear Regulatory Commission or an Agreement State, the licensee shall establish a written agreement between the licensee and the customer specifying which licensee activities shall be performed under the customer's license and supervision, and which licensee activities shall be performed under the licensee's supervision pursuant to this license. The agreement shall include a commitment by the licensee and the customer to ensure safety, and any commitments by the licensee to help the customer clean up the temporary job site if there is an accident. A copy of this agreement shall be included in the notification required by license condition 21.
21. The licensee shall notify the U.S. Nuclear Regulatory Commission in accordance with Appendix D of 10 CFR Part 20, in writing at least 14 days before initiating activities under this license at a temporary job site, excluding routine packaging or repackaging for purposes of transporting and not requiring a job or site specific work package, and characterization and/or final surveys where radioactive materials and/or radiation are not likely to be detected. This notification shall include:
- A. The estimated type, quantity, and physical/chemical forms of licensed material to be used,

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
04-35535-01Docket or Reference Number
030-39161

- B. The specific site location,
- C. A description of planned activities including waste management and disposition,
- D. The estimated start date and completion date for the job,
- E. The name and title of a point of contact for the job, including information on how to contact the individual, and
- F. Copy of the written agreement between the licensee and the customer as described by license condition 20.
22. Within 30 days of completing activities at each job site location, the licensee shall notify the U.S. Nuclear Regulatory Commission in accordance with Appendix D of 10 CFR Part 20, in writing, of the temporary job site status and the disposition of any licensed material used.
23. If approved by a Radiation Safety Officer specifically identified in this license, the licensee may take reasonable action in an emergency that departs from conditions in this license when the action is immediately needed to protect public health and safety and no action consistent with all license conditions that can provide adequate or equivalent protection is immediately apparent. The licensee shall notify the U.S. Nuclear Regulatory Commission Headquarters Operations Center at 301-816-5100 and the U.S. Nuclear Regulatory Commission Regional contact before, if practicable, and in any case immediately after taking such emergency action using the reporting procedure specified in Appendix D of 10 CFR Part 20.
24. The licensee shall maintain records of information important to decommissioning for each temporary job site pursuant to 10 CFR 30.35(g), 40.36(f), and 70.25(g). The records shall be made available to the customer upon request. At the completion of activities at a temporary job site, the licensee shall transfer these records to the customer for retention.
25. This license does not authorize the import of byproduct material, source material, and special nuclear material wastes.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
04-35535-01Docket or Reference Number
030-39161

26. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. This license condition applies only to those procedures that are required to be submitted in accordance with the regulations. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated February 8, 2019 excluding references to maximum quantities (possession) of material (ML19119A340)

B. Enclosure to email dated June 20, 2019, and letter dated June 20, 2019 with enclosures excluding references to maximum quantities (possession) of material (ML19172A261)

C. Letters dated July 25, 2019 and July 26, 2019 (ML19219A221)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: September 27, 2019By: /RA/Roberto J. Torres
Region IV