State of Washington

Radioactive Materials License

License Number WN-I0393-1

Amendment No. 6

ATG RICHLAND CORPORATION
P.O. Box 969
2025 Battelle Boulevard
Richland, Washington 99352

Attention: Curt Cannon
Radiation Safety Officer

Washington State Radioactive Materials License Number WN-I0393-1 is administratively amended as follows:

License Condition 13 is amended to read:

13. Radioactive material shall be used by, or under the direct supervision of David J. Bennett, Timothy A. Burckhard, Curt N. Cannon, Don Gagel, Robert H. Gonzales, Paul E. Hansen, Rick Merrill, Michael S. McCargar, Lawrence E. Morin, Mark A. Pettit, Robert Schlager, Joseph E. Schroeder, James J. Sims, Justin Smith, Kara Smith, Mark T. Smith, Clifford J. Stephan, Olaf D. Welshons, Frank C. Whitaker, Jr., and/or Donald C. Woodford.

License Condtion 29. E. is amended to read:

29. E. ATG, Richland Operations Manual, dated April 22, 1998.

License Condition 29.G. is amended to read:

29. G. ATG, Richland Operations Procedure (AROP) #102 dated April 17, 1998.

FOR THE STATE OF WASHINGTON DEPARTMENT OF HEALTH

Date April 23, 1998

By _____
Gary L. Robertson, Head
Waste Management Section

AMENDMENT NO. 5

State of Washington

Radioactive Materials License

Pursuant to the Nuclear Energy and Radiation Control Act, RCW 70.98, and the Radiation Control Regulations, Chapters 246-220 through 246-255 WAC, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material(s) designated below; and to use such radioactive materials for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules and regulations promulgated by the State of Washington Department of Health.

1. Licensee Name 2. Address ATG RICHLAND CORPORATION P.O. Box 969 2025 Battelle Boulevard Richland, Washington 99352	3. License Number WN-I0393-1 is amended in its entirety 4. Expiration Date September 30, 2004 5. Reference number(s)

6. Radioactive Material (element and mass number)	7. Chemical and/or Physical Form	8. Maximum quantity licensee may possess at any one time
A. Any radioactive material Atomic Numbers 1-83.	A. 1. Solid form (contamination, as received or possessed, on articles or in waste form or incorporated into re-useable items leased to others in the course of business). 2. Liquid form (containing contamination as received or possessed or in waste form).	A. 50 curies (1850 gigabecquerels) total, not to exceed 2 curies (74 gigabecquerels) per radionuclide, except: Hydrogen 3 - 30 curies (1110 gigabecquerels) Carbon 14 - 5 curies (185 gigabecquerels) Phosphorus 32 - 5 curies (185 gigabecquerels) Sulfur 35 - 5 curies (185 gigabecquerels) Cobalt 60 - 10 curies (370 gigabecquerels) Iodine 129 - 250 millicuries (9.25 gigabecquerels) Iodine 131 - 1 curie (37 gigabecquerels) Lead 210 - 500 millicu (18.5 gigabecquerels) and except as spec License Conditior

B. Special Nuclear Material.	B. 1. Solid form (contamination, as received or possessed, on articles or in waste form).	B. Not to exceed unity formula quantities as specified in WAC 246-220-010 under the definition "Special nuclear material in quantities not sufficient to form a critical mass," and except as specified in License Condition 24.
	2. Liquid form (containing contamination as received or possessed or in waste form).	
C. Source material.	C. 1. Solid form (contamination, as received or possessed, on articles or in waste form).	C. 10,000 kilograms total (3.33 curies if U-238) except as specified in License Condition 24.
	2. Liquid form (containing contamination as received or possessed or in waste form.)	
D. Any other radioactive material, Atomic Numbers 84-103, except Special Nuclear Material and source material.	D. 1. Solid form (contamination, as received or possessed, on articles or in waste form).	D. 500 millicuries (18,500 megabecquerels) except as specified in License Condition 24.
	2. Liquid form (containing contamination as received or possessed or in waste form.)	
E. Radioactive material Atomic Numbers 1-83.	E. 1. Dry packaged radioactive material and/or waste.	E. 5000 curies (185 terabecquerels) except as specified in License Condition 24.
	2. Liquid form (packaged in plastic secondary containers within DOT 7A packages).	

F. Radioactive material Atomic Numbers 1-83.	F. 1. Dry packaged radioactive material and/or waste. 2. Gas contained in instruments or articles.	F. 5000 curies (185 terabecquerels) except as specified in License Condition 24.
G. Radioactive material, Atomic Numbers 84 to 103, except Special Nuclear Material and source material.	G. Dry packaged radioactive material and/or waste.	G. 100 curies (3700 gigabecquerels).
H. Cesium 137.	H. Sealed source (Isotope Products Laboratories Model # HEG-137).	H. No single source to exceed 30 millicuries (1110 megabecquerels).
I. Reserved	I. Reserved.	I. Reserved.
J. Radioactive material, Atomic Numbers 1 to 103, except Special Nuclear Material and source material.	J. Liquid material or waste; dry packaged material or waste.	J. 2 curies (37 gigabecquerels) except as specified in License Condition 24.

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CONDITIONS

9. Authorized use.

All uses shall be in accordance with ATG Richland Operations Manual and in accordance with approved procedures as described in License Condition 22 and must meet the financial surety restrictions as described in License Condition 23.

A-D (1) For supercompaction and overpacking of dry waste packaged in drums, excluding explosive or highly flammable materials. This material shall be kept onsite for no more than six months from date of receipt.

(2) Incidental to volume reduction of equipment, scrap material, or waste. Material to be processed in this manner shall be kept onsite for no more than two years from date of receipt.

(3) Incidental to decontamination of equipment or scrap material. Material to be processed in this manner shall be kept onsite for no more than two years from date of receipt.

(4) For brokered wastes and materials. This waste and material shall be kept onsite for no more than two years from date of receipt.

(5) For storage prior to processing or shipment. Material shall be stored for no more than two years without written permission from WDOH, except that material received prior to January 1, 1994 may be stored for up to four years from date of receipt.

(6) Incidental to decontamination of equipment, articles, or facilities at offsite locations. A detailed work plan shall be submitted to the department in writing at least one week in advance of the planned work and the project shall not begin until written approval is received from WDOH.

(7) For solidification and/or absorption of liquid waste. This material shall be kept onsite no more than six months from date of receipt.

(8) For segregation, stabilization, encapsulation and treatment. This material shall be kept onsite no more than six months from date of receipt.

(9) For leasing items containing radioactive materials, the following items are approved: shield drums, uncertified casks that act as shielded strong, tight packages, lead blankets, scaffolding, boxes, and C-vans.

E. To be stored for decay. Processing of decayed material shall be as described in AROP 226, "Processing Store for Decay Material." This material shall be stored for no longer than five years without written permission from WDOH.

F. For interim inside storage of waste and material until permanent storage or disposal sites are determined. Material, including instruments and articles, may be repackaged prior to storage. Material shall be stored for no longer than five years without written permission from WDOH. This time period will be re-evaluated as necessary by licensee and WDOH.

G. For interim inside storage of waste and material until permanent storage or disposal sites are determined. Material shall be stored for no longer than five

years without written permission from WDOH. This time period will be re-evaluated as necessary by licensee and WDOH.

H. To be used in an Isotope Products Laboratories Model # CD-10-1 Beam Calibration Device for checking response on dose rate instrument.

I. Reserved.

J. For use in the development of new techniques for treating radioactive material or waste in order to reduce the volume of waste which must be disposed. A detailed work plan shall be submitted to the department in writing at least one month in advance of the planned work and the project shall not begin until written approval is received from WDOH.

10. Radioactive material shall be received, stored, and processed at 2025 Battelle Boulevard, Richland, Washington and may be used at temporary job sites of the licensee within the state of Washington provided work at temporary job sites is approved by the department prior to the work commencing. This condition does not prohibit use in states under U.S. Nuclear Regulatory Commission (NRC) jurisdiction or in other Agreement States under reciprocity procedures which may be established by the NRC or those states.

11. The licensee shall comply with the provisions of WAC 246-220, "General Provisions;" WAC 246-221, "Radiation Protection Standards;" WAC 246-222, "Radiation Protection - Worker Rights;" WAC 246-232, "Licensing Applicability;" WAC 246-235 "Specific Licenses;" WAC 246-247, "Radiation Protection - Air Emissions;" and WAC 246-249, "Radioactive Waste - Use of the Commercial Disposal Site."

12. The Radiation Safety Officer for this program shall be Curt Cannon.

13. Radioactive material shall be used by, or under the direct supervision of David J. Bennett, Timothy A. Burckhard, Curt N. Cannon, Doc Dennis, Don Gagel, Robert H. Gonzales, Paul E. Hansen, Rick Merrill, Michael S. McCargar, Lawrence E. Morin, John Parke, Mark A. Pettit, Robert Schlager, Joseph E. Schroeder, James J. Sims, Justin Smith, Kara Smith, Mark T. Smith, Les E. Splattstoesser, Olaf D. Welshons, Frank C. Whitaker, Jr., and/or Donald C. Woodford.

14. The licensee's emergency procedures shall conform to guidelines in the ATG Richland Operations Manual, Section 4.13, and ATG, Inc.'s Emergency Plan. 1994.

15. The transport of licensed material by the licensee, or the delivery of licensed material to a carrier for transport, shall be in accordance with WAC 246-232-090 "Transportation".

16. Radioactive material stored outside shall be kept in containers approved for disposal at a licensed low-level radioactive waste disposal facility. In addition, a moisture barrier shall be used to protect barrels. Other package types that are exposed to adverse climate conditions will have their receipt markings inspected every six months.

Contaminated articles and equipment may be stored outside buildings and uncovered if the contamination is fixed or meets WAC 246-232-140, Schedule D limits for removable contamination. All other equipment and articles shall be covered.

17. The licensee shall conduct an iodine bioassay program in accordance with the criteria set forth in the Washington State Department of Health, Division of Radiation Protection Regulatory Guide 8.20, "Bioassay Program Criteria for I-125 and I-131."

18. The licensee shall conduct a bioassay program as described in the ATG Richland Operations Manual, Section 4.4, "Personnel Monitoring/Bioassay." Tritium monitoring shall meet the criteria set forth in the Washington State Department of Health, Division of Radiation Protection Regulatory Guide 8.99, "Bioassay Requirements for Tritium."

19. The licensee shall maintain records of receipt, storage and transfer of all radioactive material authorized by this license. These records shall be kept for inspection at 2025 Battelle Boulevard, Richland, Washington.

20. The licensee shall notify the Division of Radiation Protection of each incoming shipment of radioactive waste, using ATG's Radioactive Material Receipt Record form prior to offloading. Shipment inspection will be at the discretion of the Department of Health, Division of Radiation Protection. The licensee shall pay, upon billing, the department's cost for oversight and compliance activities.

21. The licensee shall conduct an environmental monitoring program as described in the ATG Richland Operations Manual, Section 5.3, "Environmental Monitoring;" in AROP 213-217; and as subsequently revised per requirements of the Environmental Radiation Section of the Division of Radiation Protection.

Two copies of the annual (calendar year) environmental report shall be submitted to the Waste Management Section no later than May 15 of each year. In addition to the two hard copies, the annual report will be submitted in a PC readable format

(e.g., 3.5 inch computer disk) utilizing commercially available software (e.g., MS WORD 6.0 and EXCEL 5.0).

22. Approved procedures shall be contained in the ATG Richland Operations Procedures Manual. New or revised procedures shall be reviewed and approved as described in AROP 101, "Revisions to the Facility Operations Manual;" and AROP 102, "Revisions to the Operational Procedures." See Attachment 1 for current list of approved procedures.

23. The licensee shall have and maintain a Washington State Division of Radiation Protection-approved financial surety arrangement adequate to cover decommissioning of the facility and disposal of all radioactive material possessed under the license. This arrangement is described in the 1995 Surety and Decommissioning Plan dated February 15, 1995. The basis for the financial estimates shall be reviewed and adjusted as necessary every two years. This review shall be provided to the state by March 1 of every other year, beginning in 1997.

24. For radioactive material, the possession limit shall not exceed limits specified in Item 8 of this license, or the limits determined from WAC 246-235-150, Schedule C, "Quantities of radioactive materials requiring consideration of the need for an emergency plan for responding to a release," whichever is more restrictive. If more than one radionuclide is possessed, see footnote 1 to Schedule C. A written verification that limits are not exceeded shall be submitted to WDOH at least quarterly.

25. An air emissions monitoring program shall be conducted according to the procedures described in the ATG Richland Operations Manual and in AROP 212, "Air Monitoring." An analysis of annual dose from emissions using the EPA's COMPLY program or an equivalent program shall be performed and submitted to the department within 60 days of the issuance of this license and annually thereafter. Two copies of the annual (calendar year) report shall be submitted no later than May 15 of each year.

26. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries (3.7 megabecquerels) or less of beta and/or gamma-emitting material or 10 microcuries (370 kilobecquerels) or less of alpha-emitting material.

B. The test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries (or becquerels) and maintained for inspection by the department.

C. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be disposed in accordance with department regulations or to be decontaminated and repaired by persons specifically authorized by the department, the NRC, or an Agreement State to perform such services. A report shall be filed within five days of the test with the department describing the equipment involved, the test results, and the corrective action taken.

D. In accordance with AROP 242, "Wipe Check for Non-Exempt Sources," the licensee is authorized to collect and analyze leak test samples for ATG sources. The licensee is also authorized to analyze leak test samples for non-ATG sources, as a commercial service, barring collection or offsite transporting. ATG leak test samples may also be collected and/or analyzed by other persons specifically authorized by the department, the NRC, an Agreement State, or a Licensing State to perform such services.

27. The licensee shall conduct a physical inventory every six months (not to exceed six months) as described in AROP 229 -Source Control and Inventory to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for three years from the date of the last inspection by the department.

28. The licensee shall establish in every contractual obligation relating to radioactive materials the ability to return radioactive materials, processed or unprocessed, to the prior licensed possessor.

State of Washington

Radioactive Materials License

License Number WN-I0393-1

Amendment No. 5

29. Except as specifically provided by this license, the licensee shall possess and use radioactive material described in Items 6, 7, and 8 of this license in accordance with statements, representations and procedures contained in the documents listed below. The department's "Rules and Regulations for Radiation Protection" shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations. Any change to the documents listed below shall require departmental approval in the form of an amendment to this license.

A. Application and attachments dated October 29, 1993.

B. Letter and attachments dated June 2, 1994, RE: Response to Comments on Application Materials.

C. Revised Application and attachments dated August 31, 1994, and June 30, 1994.

D. 1995 Surety and Decommissioning Plan dated February 15, 1995.

E. ATG, Richland Operations Manual, dated February 17, 1998.

F. ATG, Richland Operations Procedure (AROP) #101, dated November 21, 1994.

G. ATG, Richland Operations Procedure (AROP) #102, dated November 21, 1994.

H. Allied Technology Group, Incorporated's Emergency Plan dated July 30, 1997.

Date February 27, 1998

By Gary Robertson
Gary Robertson
Waste Management Section

LIST OF APPROVED PROCEDURES

AROP NUMBER	TITLE	REVISION	REVISION DATE	COMMENT
101	Revisions to the Facility Operations Manual	0	6/30/94	
102	Revisions to the Operational Procedures	0	6/30/94	
103	Distribution of the Operational Procedures and Manual	1.00	7/1/96	Revised 12/94
104	Non-Routine Operations Planning	0	8/22/94	
105	Unusual Event Reporting	0	8/22/94	
106	ALARA Guidelines	0.01	11/12/96	
107	Radiological Controls and Safety Audits	0	10/25/93	TOI 10/93 version
108	Brokering	1.00	5/9/96	
109	Site Training	0	10/25/93	TOI 10/93 version
110	Removed			
111	Removed			
112	Facility Security	0.00	11/12/96	
113	Plant Awareness Report Documentation	1.01	1/5/98	
201	Personnel Decontamination	0.00	9/30/96	TOI
202	Internal Radiation Monitoring	0	10/93	TOI 10/93 version
203	Radiation Exposure Records	0	10/25/93	TOI 10/93 version
204	Radiation Exposure Reports	0	10/25/93	TOI 10/93 version
205	Temporary Transfer of Personnel	0	10/25/93	TOI 10/93 version
206	Dosimetry Issuance	2.00	11/12/96	
207	Dosimetry Calibration	0	8/22/94	
208	Respiratory Protection Equipment Issuance	0.00	11/12/96	
209	Respiratory Protection Equipment Sanitation and Inspection	0	10/93	TOI 10/93 version
210	HEPA Filter/HEPA Filter In-Place Aerosol Test	0	11/24/97	TOI
211	Air Sampler Calibration	0	5/16/96	
212	Air Monitoring	1.01	2/21/96	
213	Soil Sampling	0	10/25/93	TOI 10/93 version
214	Groundwater Monitoring Procedure	0.00	11/12/96	
215	Environmental Thermoluminescent Dosimetry Monitoring	0	10/25/93	TOI 10/93 version
216	Sample Handling and Shipping	0.00	12/16/96	TOI
217	Environmental Data Review and Reporting	0	10/25/93	TOI 10/93 version
219	Radioactive Material Vehicle Surveys	0	10/25/93	TOI 10/93 version

AROP NUMBER	T E	REVISION	EVISION DATE	COMMENT
AROP NUMBER	TITLE	REVISION	REVISION DATE	COMMENT
222	Calibration of Ludlum Model 333-2 Beta Continuous Air Monitor	0.00	11/12/96	
223	Empty Transport Vehicle Survey	0	10/25/93	TOI 10/93 version
224	Unconditional Release Survey	0	10/25/93	TOI 10/93 version
225	Processed Material Unconditional Release	0.01	2/15/96	
226	Processing Store for Decay Material	0.02	5/23/96	
227	Beckman LS 8100 Liquid Scintiallation Counter	0.00	3/8/96	
228	Routine Surveys and Postings	0	10/25/93	TOI 10/93 version
229	Source Control and Inventory	0.02	2/15/95	
230	Operation and Use of Portable Instrumentation	0	10/25/93	TOI 10/93 version
231	Check of Portable Instrumentation	0	10/25/93	TOI 10/93 version
232	Helgeson Bag Monitor	0.01	2/15/96	
233	Protean Calibration	1.01	11/18/95	
234	Operation of Scaler	0.00	2/13/97	TOI 10/93 version
235	Operation of HPGe Multi-Channel Analyzer	1.00	12/12/96	
236	Radiation Work Permits	.01	11/12/96	
237	Calibration and Response Check of Eberline Personnel Contamination Monitor Model PCM-1B	1.02	2/12/97	
238	Calibration and Response Check of Integral Tool Monitor Model ITM-2H	1.01	6/5/95	
239	Unconditional Release of Non-Process Material	0	9/23/94	
240	Operation of Protean	0.00	6/25/95	
241	Operation and Calibration of Lapel (BZA) Air Sampler	1.00	5/16/96	
242	Wipe Check for Non-Exempt Sources	0.00	1/10/95	
243	Check of Portable Dose Rate Instrumentation	0.01	2/16/96	
301	Building 2 (Volume Reduction) Ventilation	.01	2/4/97	
302	Building 1 (Supercompaction) Ventilation	0.00	5/23/95	
303	Container Opening	0.00	3/17/97	TOI
304	Contaminated Material Sort and Survey	0	10/25/93	TOI 10/93 version
305	In-Barrel Compaction	0.00	3/17/97	TOI
306	Walk-in Sandblast Booth Operation	0.00	11/12/96	

AROP NUMBER	7 E	REVISION	EVISION DATE	COMMENT
AROP NUMBER	TITLE	REVISION	REVISION DATE	COMMENT
307	Sandblast Cabinet Operation	0.00	11/12/96	
308	ATG Supercompactor Operation	1.00	8/27/96	
309	HEPA Filter Compaction	0.00	11/12/96	
310	Material Decontamination	0	10/25/93	TOI 10/93 version
311	Packaging Waste Material for Disposal	0	10/93	TOI 10/93 version
313	Concrete Encapsulation for Stabilization	0.00	12/29/95	
314	Change and Inspection of HEPA Filters for Sandblast Booth	0.00	10/31/95	
315	Shredding Contaminated Material	0	12/13/94	
316	Petroset/Aquaset Solidification	1.00	10/16/95	
317	Mixer Operations	0.00	11/12/96	
318	Absorbing Contaminated Liquid Waste	1.00	10/23/95	
320	Removed			
330	Welding and Repair of Drums and Shipping	0.00	8/7/97	TOI
401	Shipping and Waste Classification	1.03	1/26/98	TOI
402	Receipt Document Review and Procedure	1.00	5/9/96	
403	Radioactive Material Tracking	0.00	2/9/95	
404	Processing DOE/NRC 741 Forms	0	10/93	TOI 10/93 version
405	Shipping of Radioactive Material and Waste	2.01	1/22/98	
504	Richland Consolidation Facility Operations	0.01	3/28/97	
603	Safglas* Waste Processing	0	9/8/97	TOI
604	Safglas* Draining Procedure	0	9/8/97	TOI
605	Safglas* RO System Operation	0	9/8/97	TOI
606	Safglas* Quench System Operation	0	9/8/97	TOI
607	Safglas* Chilled Water/Furnace Cooling System Operation	0	9/8/97	TOI