



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV

Walnut Creek Field Office  
1450 Maria Lane  
Walnut Creek, California 94596-5368

April 9, 1997

MEMORANDUM TO: Donald A. Cool, Director  
Division of Industrial and Medical Nuclear Safety, NMSS

FROM: Frank A. Wenslawski, Chief *F. Wenslawski*  
Materials Branch, Walnut Creek Field Office, RIV

SUBJECT: REQUEST FOR TECHNICAL ASSISTANCE:  
CTI ALASKA, INC. (CTI)

This TAR requests an exemption under 10 CFR 34.51. Specifically, the licensee requests authorization to use a SPEC source guide tube (Part Number 228007) in conjunction with Amersham 660B and INC IR-100 exposure devices. The use of the alternative guide tube is requested, as the guide tubes provided with the Amersham and INC devices are not designed for use in arctic weather conditions and frequently become embrittled, crack, and break. The licensee claims that the SPEC guide tubes have been designed for use in winter conditions and have connectors which are compatible with the Amersham and INC units. Use of the alternate guide tubes appears to be preferred and to meet the conditions of 10 CFR 34.20(b)(3).

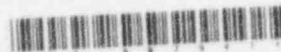
We are submitting this case to you to determine whether the licensee's proposal can be accepted. If so, please specify language for any special license condition(s) which may be required. If not, specify why the request cannot be granted at this time.

If further information is needed, do not hesitate to contact Beth Prange at (510) 975-0250 or at BAP1.

Attachments:

1. TAR Form dated April 3, 1997
2. Amendment 26 to License 50-19202-01
3. CTI letter dated March 27, 1997

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Donald A. Cool

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April 9, 1997

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WCFO Docket File

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REGIONAL TECHNICAL ASSISTANCE REQUEST FORM

Date: April 3, 1997

Mail or E-Mail to: Donald A. Cool, Director  
Division of Industrial and Medical Nuclear Safety, NMSS

If E-mail, cc:  
IMNS Secretary

From: Frank A. Wenslawski (FAW) Region IV, WCF  
Chief, Materials Branch

Licensee: CTI Alaska, Inc. License No.: 50-19202-01

Control No. 572483

Letter dated: March 27, 1997

☐ Problem/Issue: The licensee has requested authorization to use a SPEC source guide tube (Part Number 228007) in conjunction with Amersham 660B and INC IR-100 exposure devices. The licensee claims that the SPEC guide tubes are designed to withstand severe winter conditions and will not become embrittled as rapidly as the guide tubes which are normally used with the Amersham 660 and INC IR-100 units.

☐ Action Required: Determine whether the use of the SPEC cold-weather guide tubes satisfies 10 CFR 34.20(b)(3) and can be authorized for use in conjunction with the Amersham 660B and INC IR-100 exposure devices. If so, specify language for any special license condition(s). If not, specify why the request cannot be granted at this time.

Recommended Action : Approve

Headquarter Reviewer:

Regional Reviewer: Beth Prange

Reviewer Code: W1

Reviewer Phone No.: (510) 975-0250

FAX No.: (510) 975-0381

Request Needed by: 09/01/97

## MATERIALS LICENSE

FILE COPY

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, 40 and 70, 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. CTI Alaska, Inc.

2. 4831 Old Seward Highway, Suite 107  
Anchorage, Alaska 99503-7450In accordance with application dated  
June 16, 19953. License number 50-19202-01 is amended in  
its entirety to read as follows:

4. Expiration date October 31, 2000

5. Docket or  
Reference No. 030-171296. Byproduct, source, and/or  
special nuclear material7. Chemical and/or physical  
form8. Maximum amount that licensee  
may possess at any one time  
under this license

A. See Condition 10

B. Cesium-137

C. Uranium, Natural or  
Depleted

D. Iridium-192

E. Iridium-192

F. Cesium-137

G. Cesium-137

A. Sealed sources

B. TO Model 77302  
sealed sources

C. Shielding material

D. Sealed sources  
SPEC Model G-36E. Sealed sources  
AMSHM Model GPF. Sealed sources  
AMSHM Model VD(HP)G. Sealed sources  
AMSHM Model VD(HP)

A. See Condition 10

B. Not to exceed 165  
millicuries per  
source

C. 999 kilograms

D. Not to exceed 150  
curies per sourceE. Not to exceed 100  
curies per sourceF. Not to exceed 225  
millicuries per  
sourceG. Not to exceed 100  
millicuries per  
source

## 9. Authorized use

A. For use in industrial radiography and replacement of sources.

B. For use in TO Model 773 instrument calibrator for calibration of licensee's  
survey instruments and dosimetry equipment required by 10 CFR Part 34.

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number

50-19202-01

Docket or Reference Number

030-17129

Amendment No. 26

## 9. Authorized use (Continued)

- C. For use in shielding in radiography equipment.
- D. For storage only in SPEC-Check Model II units.
- E. For storage only in AMSHM Model-1-Pipeliners units.
- F. For storage only in AMSHM Master Minder Model 1 or 2 units.
- G. For storage only in AMSHM Tattle Tale Model 1 units.

## CONDITIONS

10. Sealed sources, exposure devices, and source changers authorized for use are as follows:

<u>Isotope</u>	<u>Manufacturer &amp; Model No. of Source Assemblies</u>	<u>Maximum Activity per Source</u>	<u>Manufacturer &amp; Model No. of Exposure Devices</u>	<u>Manufacturer &amp; Model No. of Source Changers</u>
A. Gd-153	AMSHM Model GDC CY1	1 curie	Lixiscope Model LS 82 Series	NONE
B. Ir-192	AMSHM Model A424-9	140 curies	AMSHM Model 660B or 660BE	AMSHM Model 650
C. Co-60	AMSHM Model A424-13	300 curies	AMSHM 676A or 676B	NONE
D. Co-60	AMSHM Model A424-14	100 curies	AMSHM Model 680A or 680B	NONE
E. Co-60	AMSHM Model A424-19	70 millicuries	AMSHM Model 660B	AMSHM Model 650
F. Ir-192	IN Model 32	120 curies	IN Model IR-100	IN Model IR-50
G. Ir-192	AMSHM Model 87703	120 curies	IN Model IR-100	AMSHM Models 650
H. Ir-192	AMSHM Model 86520	200 curies	AMSHM Model 865	NONE
I. Ir-192	SPEC Model G-60	150 curies	SPEC Model 150	SPEC Model C-1

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<u>Isotope</u>	<u>Manufacturer &amp; Model No. of Source Assemblies</u>	<u>Maximum Activity per Source</u>	<u>Manufacturer &amp; Model No. of Exposure Devices</u>	<u>Manufacturer &amp; Model No. of Source Changers</u>
J. Ir-192	IN Model 7	140 curies	AMSHM Model 660B	IN Model IR-50
K. Ir-192	SPEC Model T-5F	140 curies	AMSHM Model 660B	SPEC Model C-1
L. Ir-192	IN Model 88	120 curies	SPEC Model SPEC 2-T	IN Model IR-50
M. Ir-192	SPEC Model G-40F or G-40T	120 curies	IN Model IR-100	SPEC Model C-1

## ABBREVIATIONS USED IN LICENSE:

Amersham (AMSHM), Source Production &amp; Equipment Co. (SPEC), Industrial Nuclear (IN)

11. A. Licensed material shall be stored at the licensee's facilities located at 4831 Old Seward Highway, Suite 107, Anchorage, Alaska; 611 30th Avenue, Fairbanks, Alaska; or 43800 Kenai-Spur Highway, Kenai, Alaska; and, except for material described in Item 10.C. above, may be used 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.
- B. Licensed material described in Item 10.C. may be used only as described in the licensee's letter dated August 31, 1995.
12. A. Licensed material shall be used by, or under the supervision and in the physical presence of, Sandy Watson, Randy J. Watkins, Lawrence Russell, Donald L. Spahr, or individuals who have been trained as specified in the letter dated August 31, 1995 and September 28, 1995. The licensee shall maintain records of individuals designated as users.
- B. The Radiation Safety Officer for this license is Sandy N. Watson.
13. A. Notwithstanding the periodic leak test required by 10 CFR 34.25(b), the requirement does not apply to radiography sources that are stored and not being used. The sources exempted from this test shall be tested for leakage before use or transfer to another person. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- B. Sealed sources authorized for a use other than radiography shall be tested as radiography sources in accordance with Section 34.25 of 10 CFR Part 34.

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

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14. The licensee is authorized to receive, possess, and use sealed sources of iridium-192 or cobalt-60 where the radioactivity exceeds the maximum amount of radioactivity specified in this license provided:
- A. Such possession does not exceed the quantity per source specified in Item 8 by more than 20% for iridium-192 or 10% for cobalt-60;
  - B. Records of the licensee show that no more than the maximum amount of radioactivity per source specified in this license was ordered from the supplier or transferor of the byproduct material; and
  - C. The levels of radiation for radiographic exposure devices and storage containers do not exceed those specified in Section 34.21, 10 CFR Part 34.
15. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
16. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
17. 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. The 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 June 16, 1995 except for "Radiation Safety Program"
  - B. Letter dated August 31, 1995 including "Radiation Safety Program"
  - C. Letter dated September 28, 1995 with enclosures

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date OCT - 2 1995

By Beth A. Prange

Materials Branch  
Region IV, WCFO  
Walnut Creek, California 94596