

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, 39, 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. Tucker Technologies, Inc.
2. 12607 East 60th Street South
Tulsa, Oklahoma 74146

In accordance with letter dated
April 2, 1996

3. License number 35-19815-01 is amended in its entirety to read as follows:

4. Expiration date June 30, 1993

5. Docket or
Reference No 030-19278

6. Byproduct, source, and/or
special nuclear material

A. Americium-241

B. Americium-241

C. Americium-241

D. Americium-241

7. Chemical and/or physical
form

A. Sealed neutron
source (Monsanto
Research Corporation
Model MRC-N-SS-W-
AmBe)

B. Sealed neutron
source (Amersham/
Gulf Nuclear (GN)
Model CSV)

C. Sealed neutron
sources (GN Model
NEEI-AmBe-71-1;
Amersham/Gamma
Industries (GI)
Model NB(HP))

D. Sealed neutron
sources (GN Model
AmBe-71-2A;
Gammatron Model
AN-HP; Amersham
Model AMN.CYN
Series)

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

A. Not to exceed 5
curies per source

B. Not to exceed 2
curies per source

C. Not to exceed 5
curies per source

D. Not to exceed 20
curies per source

9611150046 960627
PDR ADDCK 03019278
C PDR

OFFICIAL RECORD COPY

ML40

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

35-19815-01

Docket or Reference Number

030-19278

Amendment No. 12

6. 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

E. Cesium-137

E. Sealed sources
General Nuclear
Model GNI-VD-HP; GI
Model VD(HP);
Amersham Model
CDC.CYN Series; Gulf
Nuclear (GN) Model
CSV)E. Not to exceed 2
curies per source

F. Cesium-137

F. Sealed source (GN
Model (VL-1);
Gammatron
Model GT-GHP; NEN
Model NER-572)F. Not to exceed 1
curie per source

G. Cesium-137

G. Sealed sources

G. Not to exceed 1
millicurie per
source

H. Cobalt-60

H. Sealed sources

H. Not to exceed 1
millicurie per
source

I. Manganese-54

I. Sealed sources

I. Not to exceed 10
microcuries per
source

J. Americium-241

J. Foil

J. 1 millicurie

K. Thorium-228

K. Sealed sources

K. Not to exceed 10
microcuries per
source

L. Uranium-238

L. Sealed sources

L. Not to exceed 10
microcuries per
source

M. Americium-241

M. Sealed neutron
sources (Amersham
Model AMN.PE1)M. Not to exceed 300
millicuries per
source

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

35-19815-01

Docket or Reference Number

030-19278

Amendment No. 12

- | | | |
|---|--|--|
| <p>6. Byproduct, source, and/or special nuclear material</p> <p>N. Cesium-137</p> <p>O. Americium-241</p> | <p>7. Chemical and/or physical form</p> <p>N. Sealed source (TN Technologies, Inc. Model TN-57157C)</p> <p>O. Sealed sources</p> | <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>N. Not to exceed 100 millicuries per source</p> <p>O. Not to exceed 10 microcuries per source</p> |
|---|--|--|

9. Authorized use

- A. For use in calibration of logging tools and research and development as defined in 10 CFR 30.4.
- B. through F. For use in oil and gas well logging, calibration of logging tools, and research and development as defined in 10 CFR 30.4.
- G. through L. For use as reference and calibration standards.
- M. For calibration of oilfield logging tools.
- N. For storage only in TN Technologies, Inc. Model 5190 cement flow gauge.
- O. For above ground use only, as calibration sources and research and development as defined in 10 CFR 30.4.

CONDITIONS

10. Licensed material may be used at the licensee's facility located at 12607 East 60th Street South, Tulsa, Oklahoma, and 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.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

35-19815-01

Docket or Reference Number

030-19278

Amendment No. 12

11. A. Licensed material shall be used by, or under the supervision and in the physical presence of the Radiation Safety Officer, or individuals who have been trained as specified in application and letter dated May 13, 1988.
B. The Radiation Safety Officer for this license is Randy E. Nitz.
12. Each source holder or logging tool containing radioactive material shall bear a legible and visible marking as specified in 10 CFR 39.31(a). The label must be on the smallest component that contains the licensed material which is transported as a separate piece of equipment.
13. A. Notwithstanding the periodic leak test required by 10 CFR 39.35, the requirement does not apply to sources, except sources containing plutonium, that are stored and not being used. The sources exempted from this periodic 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 well logging shall be tested for leakage and shall be inventoried in accordance with 10 CFR 39.35 and 39.37.
14. The licensee shall not vacate or release to unrestricted use a field office or storage location whose address is identified in Condition 10, without prior U.S. Nuclear Regulatory Commission approval.
15. 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.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

35-19815-01

Docket or Reference Number

030-19278

Amendment No. 12

16. 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 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. Letter dated September 10, 1987
- B. Letter dated January 14, 1988
- C. Letter dated May 13, 1988
- D. Letter dated September 28, 1988
- E. Letter dated November 2, 1989
- F. Letter dated November 2, 1989
- G. Letter dated November 14, 1989
- H. Letter dated December 1, 1992
- I. Letter dated January 8, 1993
- J. Letter dated May 18, 1994
- K. Facsimile dated June 17, 1994
- L. Letter dated November 9, 1994
- M. Letter dated November 22, 1994
- N. Letter dated November 28, 1994
- O. Letter dated April 2, 1996
- P. Letter dated June 26, 1996

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUN 27 1996

By

Anthony D. Gaines

Anthony D. Gaines
Nuclear Materials Licensing Branch
Region IV
Arlington, Texas 76011



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

June 27, 1996

Tucker Technologies, Inc.
ATTN: Randy E. Nitz
Radiation Safety Officer
12607 East 60th Street South
Tulsa, Oklahoma 74146

SUBJECT: LICENSE AMENDMENT

Please find enclosed License No. 35-19815-01. You should review this license carefully and be sure that you understand all conditions. Although its expiration date has not been changed by this amendment, your license remains in effect (that is, in timely renewal status) until further notice. If you have any questions, you may contact the reviewer who signed your license at (817) 860-8252.

NRC expects licensees to conduct their programs with meticulous attention to detail and a high standard of compliance. Because of the serious consequences to employees and the public which can result from failure to comply with NRC requirements, you must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Possess radioactive material only in the quantity and form indicated in your license.
3. Use radioactive material only for the purpose(s) indicated in your license.
4. Notify NRC in writing of any change in mailing address (no fee required if the location of radioactive material remains the same).
5. Request and obtain written NRC consent before transferring your license or any right thereunder, either voluntarily or involuntarily, directly or indirectly, through transfer of control of your license to any person or entity. A transfer of control of your license includes not only a total change of ownership, but also a change in the controlling interest in your company whether it is a corporation, partnership, or other entity. In addition, appropriate license amendments must be requested and obtained for any other planned changes in your facility or program that are contrary to your license or contrary to representations made in your license application, as well as supplemental correspondence

thereto, which are incorporated into your license. A license fee may be charged for the amendments if you are not in a fee-exempt category.

6. Maintain in a single document decommissioning records that have been certified for completeness and accuracy listing all the following items applicable to the license:
 - Onsite areas designated or formerly designated as restricted areas as defined in 10 CFR 20.3(a)(14) or 20.1003.
 - Onsite areas, other than restricted areas, where radioactive materials in quantities greater than amounts listed in Appendix C to 10 CFR 20.1001-20.2401 have been used, possessed, or stored.
 - Onsite areas, other than restricted areas, where spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site have occurred that required reporting pursuant to 10 CFR 30.50(b)(1) or (b)(4), including areas where subsequent cleanup procedures have removed the contamination.
 - Specific locations and radionuclide contents of previous and current burial areas within the site, excluding radioactive material with half-lives of 10 days or less, depleted uranium used only for shielding or as penetrators in unused munitions, or sealed sources authorized for use at temporary job sites.
 - Location and description of all contaminated equipment involved in licensed operations that is to remain onsite after license termination.
7. Submit a complete renewal application with proper fee, or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.
8. Request termination of your license if you plan to permanently discontinue activities involving radioactive material.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a

Tucker Technologies, Inc.

-3-

notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), 60 FR 34381, June 30, 1995.

Thank you for your cooperation.

Sincerely,



Anthony D. Gaines
Health Physicist
Nuclear Materials Licensing Branch

Docket: 030-19278
License: 35-19815-01
Control: 466103

Enclosures: As stated

JUN 27 1996

Tucker Technologies, Inc.

-4-

DOCUMENT NAME: P:\coverltr\35-19815.1cl

To receive a copy of this document, indicate in the box "C" - Copy without attachment/enclosure "E" - Copy with attachment/enclosure "N" - No Copy

RIV:NMLB	N						
ADGaines	ADG						
6/27/96							

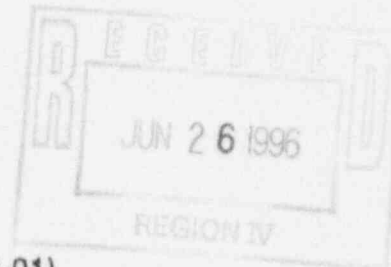
OFFICIAL RECORD COPY

m/s # 18

T5

June 26 1996

U S Nuclear Regulatory Commission
Region IV
ATTN: Tony Gains
Branch Chief, Nuclear Material Licensing
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064



Category 5A License (No. 35-19815-01)

Control Number 466103

As per our telephone conversations (5-26 June 1996) concerning Tucker Technologies Inc., amendment request filled on April 02 1996, the following changes and information updates are supplied below. The requested information and updates are needed to better satisfy Tucker Technologies Inc., Category 5A License (No. 35-19815-01). amendment request.

Item 11 B, Is stated on current license as; The Radiation Safety Officer for this license is Gary Max Wouten. **Please change Item 11B to; The Radiation Safety Officer for this license is Randy E. Nitz.** Qualifications and Resume for requested Radiation Safety Officer attached.

--- Update 5 June 1996. No Change required. leave as requested.

Item 8 B, States: Not to exceed 4.6 curies per source and 23 curies total. **Please change Item 8 B to: Not to exceed 5.0 curies per source and 62 curies total.**

--- Update 5 June 1996. Please change Item 8 B to: Not to exceed 5.0 curies per source.

Item 8 D, States: Not to exceed 20 curies per source and 40 curies total. **Please change Item 8 D to: Not to exceed 20 curies per source and 60 curies total.**

--- Update 5 June 1996. Please change Item 8 D to: Not to exceed 20 curies per source.

466103

Item 7 B, States: Sealed Neutron source (GN model NEEI-AmBe-71-1).
Please change Item 7 B to: Sealed Neutron source (GN model NEEI-AmBe-71-1), (GN model T).

--- Update 5 June 1996. The change request is not needed. Please leave Item 7 B in the original form as: Sealed Neutron source (GN model NEEI-AmBe-71-1).

Item 7 E, States: Sealed sources General Nuclear model GNI-VD-HP; GI Model VD (HP); Amersham model CDC.CYN Series). **Please change Item 7 E to: Sealed sources General Nuclear model GNI-VD-HP; GI Model VD (HP); Amersham model CDC.CYN Series, Gulf Nuclear model CSV.**

--- Update 5 June 1996. No Change required. leave as requested.

Item 7 F, States: Sealed sources (GN model (VL-1); Gammatron model GT-GHP). **Please change Item 7 F to: Sealed sources (GN model (VL-1); Gammatron model GT-GHP); (GN model (GB)).**

--- Update 5 June 1996. Please change Item 7 F to: Sealed sources (GN model (VL-1). Gammatron model GT-GHP). (NEN model NER-572).

--- Update 5 June 1996. Item 8 A. States Not to exceed 2 curies per source and 10 curies total. Please change Item 8 A to: Not to exceed 2 curies per source.

--- Update 5 June 1996. Item 8 C States Not to exceed 5 curies per source and 25 curies total. Please change Item 8 C. to: Not to exceed 5 curies per source.

Please add to License No. 35-19815-01 the following:

Byproduct, source , and / or special nuclear material:

Americium-241

Chemical and / or physical form:

Sealed source, (New England Nuclear model NEN)

--- Update 26 June 1996. (NEN model NES-128S). And or any model number of Americium-241 in a sealed source which will not exceed 10 microcuries.

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

Not to exceed 6 microcuries.

--- Update 26 June 1996. Please correct to: Not to exceed 10 microcuries per source. Source type will be used for surface

(above ground) calibration and research and development purposes only.

Byproduct, source, and / or special nuclear material:

Cesium-137

Chemical and / or physical form:

Sealed source model 190 Cement Flow Gage

--- Update 5 June 1996. Please correct to: Sealed source model TN-57157C. Cement Flow Gage.

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

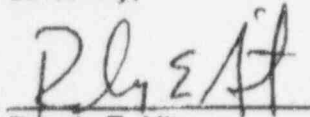
Not to exceed 100 millicurie per source and 100 millicurie total. This source is not to be used by Tucker Technologies it will only be stored at its facility.

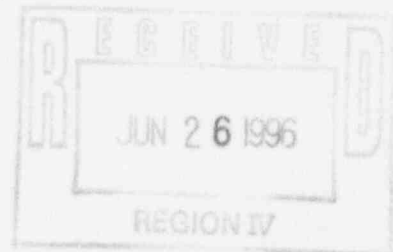
--- Update 5 June 1996. Please correct to: Not to exceed 100 millicurie per source. This source is installed in TN Technologies, Inc Cement Flow Gage source head model 5190. This source is not to be used by Tucker Technologies it will only be stored at its facility.

Please note that Tucker Technologies Inc., understands that all AmBe sources are subject to Condition #15 of our current license.

Thank you for your assistance in this matter. If you should have any further questions, please do not hesitate to contact me.

Sincerely,


Randy E. Nitz



FILE

CONVERSATION RECORD

TIME

11:20 AM

DATE

6/5/96

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☒ INCOMING

☐ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Randy Nitz

ORGANIZATION (Office, dept., bureau, etc.)

Tucker Technologies, Inc.

TELEPHONE NO.

(918) 252-5416

SUBJECT

Amendment for Lic No- 35-19815-01 Doc No-030-19278

Control No- 466103

SUMMARY

Mr Nitz called me with the following information in regards to 6/4/96 telecon with myself:

① They currently had 79.8 Ci of Am-241 + He would like to get rid of the line listed quantities in 8A-D + keep LIC Condition 15.

② ⑨ The GN Model T was an AN-HP which is already on their license, so he will rescind this request ⑥ The GN Model GB turned out to be an NER-572, therefore he will change his request ③ the Model NEN is still being reviewed with Dupont his first indication was a Model NES-1285. However, this was given to him by him describing source to Dupont, I informed ^{him} that this model did not appear to be in SSDR. He is to talk further with Dupont. ④ Cement flow gauge is TN Model 5190 gauge with TN-57157C source, he will change request to reflect this. ⑤ the NEN ~~Am-241~~ Am-241 GUCI source will be used for calibration only.

ACTION REQUIRED

Await Written Response to Proceed with Action

NAME OF PERSON DOCUMENTING CONVERSATION

Anthony D. Gaines

SIGNATURE

Anthony D. Gaines

DATE

6/5/96

ACTION TAKEN

SIGNATURE

TITLE

DATE

**DIVISION OF ACCOUNTING AND FINANCE
REQUEST FOR REFUND TO EMPLOYEE/VENDOR**

THE EMPLOYEE/VENDOR IDENTIFIED BELOW HAS OVERPAID THE NUCLEAR REGULATORY COMMISSION FOR GOODS AND/OR SERVICES PROVIDED AND IS DUE A REFUND

EMPLOYEE/VENDOR/PAYEE CODE: _____

NAME: Tucker Technologies, Inc.

ADDRESS: Attn: Skip Swift

ADDRESS: 12607 E. 60th Street

CITY: Tulsa

STATE: OK

ZIP: 74146-6910

TRANS CODE: PX

TRANS TYPE: FE FUND: X5280 JOB CODE: _____ AMOUNT: \$40.00

TRANS TYPE: IR FUND: R1435 JOB CODE: INTR AMOUNT: _____

TRANS TYPE: IR FUND: R1099 JOB CODE: ADCH AMOUNT: _____

TRANS TYPE: IR FUND: R1099 JOB CODE: FINE AMOUNT: _____

TOTAL REFUND AMOUNT: \$40.00

COMMENTS: Overpaid Amd fee

Lic 35-19815-01 / CK 13269

(limit comments to 40 characters, including spaces)

PREPARED BY: Rita Messier DATE: 6/5/96

AUTHORIZED BY: Andrea Kimberly DATE: 6/5/96

ORIGINAL INV. NO: _____ DATE PAID: _____ AMOUNT: _____

REFUND ENTERED INTO COLLECT BY: _____

REFUND DETERMINED BY: _____ DATE: _____

PLEASE ATTACH APPROPRIATE SUPPORTING DOCUMENTATION

ck #013269
dated 5/22/96
for \$650

5A
AA905 AMD
Jen I II
466103

FILE

CONVERSATION RECORD

TIME

4:00 p.m.

DATE

6/4/96

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Randy Nitz

ORGANIZATION (Office, dept., bureau, etc.)

Tucker Technologies, Inc.

TELEPHONE NO.

(918) 252-5416

SUBJECT

Amendment for Lic No - 35-19815-01 Doc No - 030-19278

Control No - 466103

SUMMARY

Called Mr. Randy Nitz about the following deficiencies:

- ① The amount of Am-241 they asked for would put them over 100 Ci, which would require \$75,000 worth of financial Assurance. Asked him how much Am-241 did they have currently. And if it was below 100 Ci instead of line listing quantities in 8A-D we could get rid of those + keep LC 15 which makes them responsible for making sure they don't go over amounts requiring financial Assurance.
- ② Asked Mr. Nitz to provide more info + check model #'s on the following requests: ③ GN Model T ?? ④ GN Model B ?? ⑤ New England Nuclear Model NEN ?? ⑥ Asked for Model # of device + Source for Model 190 Cement Flow Gauge ⑦ Also asked what NEN (Am-241 GUC) would be used for.
- ③ Informed Mr. Nitz that the Monsanto Research Corp. Model MRC-N-SS - w/ ^{AmB} source was not approved for well logging + I would have to move it to separate category of for R+D + calibration only. He said that was o.k.

ACTION REQUIRED

Await Response from Mr. Nitz.

NAME OF PERSON DOCUMENTING CONVERSATION

Anthony D. Gaines

SIGNATURE

Anthony D. Gaines

DATE

6/4/96

ACTION TAKEN

SIGNATURE

TITLE

DATE

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LEMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03111
STATUS CODE: 2
FEE CATEGORY: 5A
EXP. DATE: 19930630
FEE COMMENTS: 5A OK FOR TH & UR-9/8
DECOM FIN ASSUR REQ: N

1996 JUN -4 PM 3:42

LICENSE FEE TRANSMITTAL

A. REGION IV

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: TUCKER TECHNOLOGIES, INC.
RECEIVED DATE: 960603
DOCKET NO: 3019278
CONTROL NO: 466103
LICENSE NO: 3519815-01
ACTION TYPE: AMENDMENT

2. FEE ATTACHED \$650 -
AMOUNT
CHECK NO.: 013269

3. COMMENTS

SIGNED
DATE

Laura Smiley
6/3/96

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED ✓)

1. FEE CATEGORY AND AMOUNT: 5A \$610

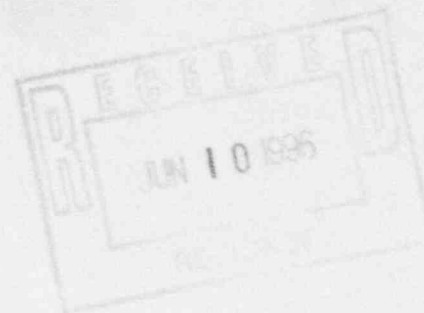
2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT
RENEWAL
LICENSE

3. OTHER

SIGNED
DATE

Rita Spassier
6/5/96



Log	<u>Item 1 IV</u>
Remitter	
Check No.	<u>013269</u>
Amount	<u>\$650 (\$40 Refund)</u>
Fee Category	<u>5A</u>
Type of Fee	<u>Amend</u>
Date Check Rec'd.	<u>6/5/96</u>
Date Completed	<u>6/5/96</u>
By:	<u>Xen</u>



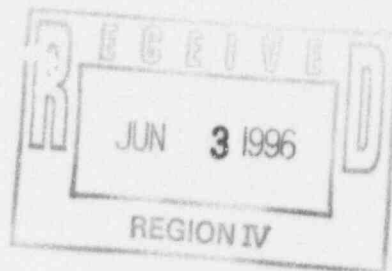
Tucker

TECHNOLOGIES, INC.

12607 E. 60th Street.
Tulsa, Oklahoma 74146-6910
(918) 252-5416 • Fax (918) 252-4496

April 02 1996

U S Nuclear Regulatory Commission
Region IV
ATTN: Billie Gryszynski
Branch Chief, Nuclear Material Licensing
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064



Category 5A License (No. 35-19815-01)

Tucker Technologies Inc., request that License No. 35-19815-01 be amended as follows.

Item 11 B, Is stated on current license as; The Radiation Safety Officer for this license is Gary Max Wooten. **Please change Item 11B to;** *The Radiation Safety Officer for this license is Randy E. Nitz.* Qualifications and Resume for requested Radiation Safety Officer attached.

Item 8 B, States: Not to exceed 4.6 curies per source and 23 curies total. **Please change Item 8 B to:** *Not to exceed 5.0 curies per source and 62 curies total.*

Item 8 D, States: Not to exceed 20 curies per source and 40 curies total. **Please change Item 8 D to:** *Not to exceed 20 curies per source and 60 curies total.*

Item 7 B, States: Sealed Neutron source (GN model NEEI-AmBe-71-1). **Please change Item 7 B to:** *Sealed Neutron source (GN model NEEI-AmBe-71-1), (GN model T).*

Item 7 E, States: Sealed sources General Nuclear model GNI-VD-HP; GI Model VD (HP); Amersham model CDC.CYN Series). **Please change Item 7 E to:** *Sealed sources General Nuclear model GNI-VD-HP; GI Model VD (HP); Amersham model CDC.CYN Series, Gulf Nuclear model CSV.*

Item 7 F, States: Sealed sources (GN model (VL-1); Gammatron model GT-GHP). **Please change Item 7 F to:** *Sealed sources (GN model (VL-1); Gammatron model GT-GHP); (GN model (GB)).*

4 6 6 1 0 3

Please add to License No. 35-19815-01 the following:

Byproduct, source , and / or special nuclear material:

Americium-241

Chemical and / or physical form:

Sealed source, (New England Nuclear model NEN)

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

Not to exceed 6 microcuries.

Byproduct, source , and / or special nuclear material:

Cesium-137

Chemical and / or physical form:

Sealed source model 190 Cement Flow Gage

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

Not to exceed 100 millicurie per source and 100 millicurie total. *This source is not to be used by Tucker Technologies it will only be stored at its facility.*

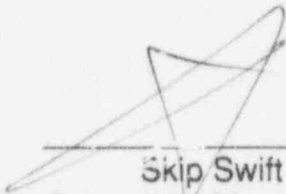
Enclosed, please find a check for \$650.00 (six hundred fifty dollars) for this amendment. Also copies of resume, certificate of training and university transcript.

Thank you for your assistance in this matter. If you should have any further questions, please do not hesitate to contact me.

Sincerely,



Randy E. Nitz



Skip Swift
Operations Manager

Enclosures

466103

Support Consultants & Associates, Inc.

This is to certify that

RANDY E. NITZ

has successfully completed the Educational Course in

RADIATION SAFETY FOR WELL LOGGERS

as prescribed under The Training Program presented by

Support Consultants & Associates, Inc.

GREAT GUNS LOGGING

JANUARY 29, 1983

Date

L. W. Hoffman
Levi Olson
Instructor

RANDY E. NITZ

19918 E. 36 TH Street

Broken Arrow, Oklahoma 74014-4715

(918) 355-5049

Education:

1981 - 1983 Fort Hays State University, Hays Kansas, Major: BS. Geology
1979 - 1981 Coffeyville Community College, Coffeyville, Kansas. AA Degree.
1975 -1979 Caney Valley High School, Caney, Kansas.
Well Logging Course, Conducted by AmStrat.
Quantitative Log Analysis, Conducted by Richard Leeth
Courses on Radiation and Explosive Safety
Drilling Mud Program offered by Davis Mud

WORK

EXPERIENCE:

Dec. 1994 --Present Tucker Technologies, Inc. Tulsa, OK.
Senior Development Engineer, Training, Customer Support, Customer Acceptance and Testing. Responsible for the introduction of new equipment to clients and field personal. Present responsibility is mobilization and coordination of off shore logging in the Gulf of Mexico.

Sep. 1994 -- Dec. 1994 Florida Geophysical Logging Inc. Fort Myers, Florida. Logging Engineer, duties consisted of helping with the reorganization of the OH / CH Logging Operations. Other duties included the interpretation of logs to State and Engineering Firm personal.

Feb. 1993 -- Sep. 1994 Digital Logging Inc. Tulsa, OK., a subsidiary of CGG (Compagnie Generale de Geophysique). Senior Development Engineer, Training, Customer Acceptance and Testing. Responsible for the introduction of new equipment to clients in Trinidad and Venezuela. Responsible for alpha and beta testing of new hardware and software products. Performed and evaluated equipment for Customer Acceptance, and trained new CGGL Engineers.

Jan. 1992 -- Jan. 1991 CGGL Massy France. Seconded from Digital Logging Inc. Tulsa, OK. Conducted start up operation for CGGL. Duties consisted of general operations, logging and training of personnel in France and Italy.

Apr. 1991, -- Dec. 1991 Digital Logging Inc., Tulsa, OK., a division of Davis Great Guns Logging Inc.
Engineering and Manufacturing Testing. Duties consisted of general operational format set up of new logging surface equipment, and tool acceptance for tools being delivered to Europe.

Dec. 1989 -- Mar. 1991 Davis Great Guns Logging, Inc. Oklahoma City, OK.
Station manager / Logging engineer for Oklahoma City, a four truck station. Responsible for accurate and efficient operation of both open and cased services. Responsible for the training of American and Foreign Engineers.

Jun. 1989 -- Nov. 1989 Davis Great Guns Logging, Inc., Oklahoma City, OK.
OH/CH Logging Engineer.

May 1987 -- May 1989 Davis Great Guns Logging, Inc., Hays, KS.
OH Logging Engineer.

Jan. 1987 -- Apr. 1987 Davis Great Guns Logging, Inc. Leduc, Canada.
OH Logging Engineer. Cold weather operations.

Feb. 1986 -- Dec. 1986 Davis Great Guns Logging, Inc., Hays, KS.
OH Logging Engineer.

Oct. 1985 -- Jan. 1986 Davis Great Guns Logging, Inc., Topeka, KS.
OH / CH Logging Engineer.

Jul. 1985 -- Sep. 1985 Davis Great Guns Logging, Inc., Hays, KS.
OH / CH Logging Engineer.

Jan. 1985 -- Jun. 1984 Davis Great Guns Logging, Inc. Hays, KS.
Trainee Engineer OH/CH.

THE UNIVERSITY OF KANSAS

hereby confers upon

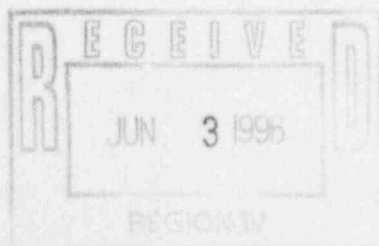
Randy Eugene Nitz

the degree of

Bachelor of Science

with all the honors, rights and privileges appertaining thereto.

Given at Hays in the State of Kansas, this twenty-ninth day of July, in the year of our Lord One Thousand Nine Hundred Eighty-three.



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