

MATERIALS LICENSE

ORC

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, 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. Construction Testing & Engineering, Inc.	3. License Number	04-29106-01
2. 2414 Vineyard Ave. Suite G Escondido, California 92029	4. Expiration Date	December 31, 1
	5. Docket or Reference No.	030-34317
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
A. Cesium-137	A. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license	A. See Condition 9. A.
B. Americium-241	B. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license	B. See Condition 9. B.

9. Authorized use

- A. and B. To be used, for measurement purposes, in portable Boart Longyear Company (formerly Campbell Pacific Nuclear Company) and/or Troxler Electronic Laboratories, Inc. gauging devices that have been registered either with NRC under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with an NRC or Agreement State specific license authorizing distribution to persons specifically authorized by an NRC or Agreement State license to receive, possess, and use the devices.

oh ML40

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

04-29106-01

Docket or Reference Number

030-34317

CONDITIONS

10. Licensed material 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.
11.
 - A. Licensed material shall only be used by, or under the supervision and in the physical presence of, Ramzi Y. Jamma, Vince J. Patula, Steve M. Youngdahl, Larry Slater, Sheldon Baker, Grant Leutkehans or individuals who have successfully completed the manufacturer's training program for gauge users, have received copies of, and training in, the licensee's operating and emergency procedures, and have been designated by the Radiation Safety Officer.
 - B. The Radiation Safety Officer for this license is Ramzi Y. Jamma.
12.
 - A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210 or by an Agreement State.
 - B. Notwithstanding Paragraph A of this Condition, sealed sources designed to 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 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
 - D. Sealed sources need not be leak tested if:
 - (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, 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 or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

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- E. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Radiation Safety and Safeguards. The report shall specify the source involved, the test results, and corrective action taken.
- F. The licensee is authorized to collect leak test samples for analysis by Pacific Nuclear Technology Co. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
14. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
15. Each portable gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport, storage, or when not under the direct surveillance of an authorized user.
16. Except for maintaining labeling as required by 10 CFR Part 20 or 71, the licensee shall obtain authorization from NRC before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications as indicated in the respective Certificates of Registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.
17. Any cleaning, maintenance, or repair of the gauges that requires removal of the source rod shall be performed only by the manufacturer or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
18. 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."
19. The licensee shall not use sealed sources or probes containing sealed sources at depths exceeding 3 feet below the surface.

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20. 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.
21. 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 December 19, 1996
 - B. Facsimiles received December 30, 1996
 - C. Facsimiles received December 31, 1996

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date DEC 31 1996

By

Beth A. Pange

Materials Branch

Region IV, WCFO

Walnut Creek, California 94596

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: _____
Status Code: 3 _____
Fee Category: _____
Exp. Date: 0 _____
Fee Comments: _____
Decom Fin Assur Req'd: _____

JAN - 3 11:53

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: CONSTRUCTION TESTING & ENGR., INC.
Received Date: 961220
Docket No.: 3034317
Control No.: 572442
License No.: _____
Action Type: New Licensee

2. FEE ATTACHED

Amount: 550.00
Check No.: 020701

3. COMMENTS

Signed
Date

Joan Harcin
12-27-96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / ☒)

1. Fee Category and Amount: 3P

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal ☒ _____
Other ☐ _____

3. OTHER

Signed
Date

SC
1/3/97

1997 JAN - 3 11:53

Log	<i>Jan 1 WCRD</i>
Remitter	_____
Check No.	<i>20701</i>
Amount	<i>\$550</i>
Fee Category	<i>3P</i>
Type of Fee	<i>App</i>
Date Check Rec'd	<i>1/1</i>
Date Completed	<i>1/3/97</i>
By	<i>SC</i>



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV

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

DEC 31 1996

Construction Testing &
Engineering, Inc.

Attention: Mr. Rodney Ballard
Vice President
2414 Vineyard Ave., Suite G
Escondido, California 92029

Dear Mr. Ballard:

SUBJECT: NEW LICENSE

Please find enclosed License No. 04-29106-01. You should review this license carefully and be sure that you understand all conditions. If you have any questions, please contact Mr. Kent M. Prendergast at 510/975-0255.

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.

Construction Testing & Engineering, Inc.

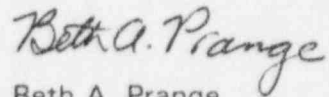
6. Maintain in a single document decommissioning records that have been certified for completeness and accuracy listing all the following items applicable to the license:
 - Onsite areas designated or formerly designated as restricted areas as defined in 10 CFR 20.3(a)(14) or 20.1003.
 - Onsite areas, 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.

Construction Testing & Engineering, Inc.

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 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,

A handwritten signature in cursive script that reads "Beth A. Prange".

Beth A. Prange
Senior Health Physicist
Materials Branch

Docket: 030-34137
License: 04-29106-01
Control: 572442

Enclosures: As stated

bcc:

Docket File
WCFO Inspection File
LFDCB, T-9 E10
State of California (License Only)

DOCUMENT NAME: G:CTE.MLC

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:MB:	<i>N</i>	C:MB:	<i>N</i>						
KPrendergast	<i>Kmp</i>	Montgomery	<i>BP</i>						
12/2/96		12/3/96		12/ /96		12/ /96		12/ /96	

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

DATE: 12/30/96

TELEPHONE OR VERBAL CONVERSATION RECORD

TIME: 11:00A
am or pm

INCOMING CALL

OUTGOING CALL

VISIT

PERSON CALLING
Kent Prendergast

ADDRESS
RIV, WCFO

PHONE # / EXTENSION
(510) 975 - 0255

PERSON CALLED:
Rod Ballared

ADDRESS:
CT&E

PHONE # / EXTENSION:
619/746-4955

CONVERSATION

SUBJECT: APPLICATION FOR LICENSE

SUMMARY: I contacted Ramzi Jamma and went over the items that were for clarification in their 12/19/96 Application. The items involved: Training for RSO's, survey instrument range/calibration/availability; the location of records; NRC notification-2201-2203; Claification to titles of Assistant RSO and RSO for responsibilities; and a Current organization chart.

REFERRED TO: MS-15

ADVISE ME OF
ACTION TAKEN
(Y) OR (N)

ACTION REQUESTED
Provide information

INITIALS: KP

DATE 12/30 KP

ACTION TAKEN

INITIALS:

DATE

NRC FORM 218
REPO (2-89;KMP)

U.S. NUCLEAR REGULATORY COMMISSION

DATE: 12/27/96

TELEPHONE OR VERBAL CONVERSATION RECORD

TIME: 11:00A
am or pm

INCOMING CALL

OUTGOING CALL

VISIT

PERSON CALLING
Kent Prendergast

ADDRESS
RIV, WCFO

PHONE # / EXTENSION
(510) 975 - 0255

PERSON CALLED:
Rod Ballard

ADDRESS:
CT&E

PHONE # / EXTENSION:
619/746-4955

CONVERSATION

SUBJECT: APPLICATION FOR LICENSE

SUMMARY: I contacted Rod Ballard and went over the items that were deficient in their 12/19/96 Application. Rod indicated he would have the RSO clarify the items brought up. I also told him they needed to look at their operations and ensure they have not exceeded 180 days. I told him they need to cease operations if they have.

REFERRED TO: MS-15

ACTION REQUESTED
Provide information

ADVISE ME OF
ACTION TAKEN
(Y) OR (N)

INITIALS: KP

DATE 12/27

ACTION TAKEN

INITIALS: *kmf*

DATE

NRC FORM 218
REPO (2-89;KMP)



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA 2414 Vineyard Ave. Suite G Escondido, CA 92029 (619) 746-4955 (619) 746-9806 FAX	RIVERSIDE, CA 490 E. Princland Ct. Suite 7 Corona, CA 91719 (909) 371-1890 (909) 371-2168 FAX	VENTURA, CA 1645 Pacific Ave. Suite 105 Oxnard, CA 93033 (805) 486-6475 (805) 486-9016 FAX	MODESTO, CA 3540 Oakdale Rd. Suite A2 Modesto, CA 95357 (209) 551-2271 (209) 551-3993 FAX	LANCASTER, CA 42156 10th St. W. Unit E Lancaster, CA 93534 (805) 726-9676 (805) 726-9676 FAX	LAS VEGAS, NV 4560 S. Valley View Suite A-3 Las Vegas, NV 89103 (702) 795-2278 (702) 726-4485 FAX	SEATTLE, WA 235 S.W. 41st St. Renton, WA 98055 (206) 656-1266 (206) 656-1265 FAX
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FAX COVER SHEET

*Inspection * Testing * Geotechnical
Environmental and Construction Engineering*

Telephone (619) 746-4955 Fax (619) 746-9806

DATE: 12-31-96

PAGES: 3 (INCLUDING COVER PAGE)

TO:
Company: NRC - Walnut Creek branch California

Attention: Kend Prendergast

Phone No: 1510 975 0255

Fax No: 1510 975 0381

RE: NRC license for 1997

FROM: CONSTRUCTION TESTING & ENGINEERING, INC.
Ramzi Jamno

MESSAGE: Amendments you requested in 1.1.6
and 1.1.7 and 7.2 in CTE Radiation Safety
Program Appendix C-1

ORIGINALS TO FOLLOW _____

IF TRANSMISSION IS INCOMPLETE, PLEASE CONTACT KERI

CONSTRUCTION TESTING & ENGINEERING, INC.
RADIATION SAFETY PROGRAM

1.1.6 Facility Radiation Safety Officer - (Management) Representative responsible for all phases of the Radiation Safety Program in the absence of the RSO and will report directly to the RSO. His job shall include training and qualification for Nuclear Gauge Operators' radiation safety certifications. He shall be a certified Safety Examiner.

1.1.7 Corporate Radiation Safety Officer (RSO) - A member of the management team of CTE with full authority and responsibility to administer and enforce the Radiation Safety Program. He shall have the authority to stop nuclear gauge activity until safety requirements have been satisfied and to discharge or suspend any individual who violates the rules and regulations in matters relative to radiation safety. He reports directly to the President or Vice President of the Company.

2.0 MONTHLY SAFETY MEETINGS/REFERESHER TRAINING

Project Managers shall be responsible for conducting refresher training for all Nuclear Gauge Operators and Trainees under their supervision at intervals of at least once each month.

- 2.1 Training. Such training shall include, but not be limited to, one of the following items each month:
- a) Agreement States or Nuclear Regulatory Commission (NRC) Rules and Regulations, Parts 19, 20, 21 and 49.
 - b) Agreement States or NRC Radioactive Material License.
 - c) Nuclear gauge equipment and detection instrument to be used.
 - d) The Operating and Emergency Procedures.

CONSTRUCTION TESTING & ENGINEERING, INC.
RADIATION SAFETY PROGRAM

as practical so that the required notice, in writing, can be completed and sent to the respective agency.

6.5.3 Nuclear Gauge Operators are required to have a current copy of each of the following documents prior to engaging in temporary operations.

6.5.3.1 Respective Agreement State License (if not licensed in the state - copy of our NRC and/or respective Agreement State License).

6.5.3.2 NRC or Agreement State Regulations, if applicable.

6.5.3.3 Operating and Emergency Procedures.

6.5.3.4 Current copy of 10 CFR Parts 19, 20 & 21 and NRC Form 3.

7.0 STORAGE OF NUCLEAR GAUGES

7.1 When not in use, nuclear gauges will be placed in the storage areas provided. All storage areas shall have a sign bearing the words, "**CAUTION -- RADIOACTIVE MATERIAL**" with the radiation symbol (magenta on yellow background). These signs shall be posted on the outside of the storage area.

7.2 A survey of the storage area containing the nuclear gauge(s) shall be made on the outside perimeters and the reading shall not exceed two (2) mR/hr, or 100 mR/year (reference 10 CFR Part 20-1301 and 1302).

7.2.1 Survey of storage areas shall be made each time a nuclear gauge(s) additional or new source) is added. A record of that survey shall be kept.



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA	RIVERSIDE, CA	VENTURA, CA	MODESTO, CA	LANCASTER, CA	LAS VEGAS, NV	SEATTLE, WA
2414 Vineyard Ave. Suite G Escondido, CA 92029 (619) 746-4955 (619) 746-9806 FAX	440 E. Pringland Ct. Suite 7 Corona, CA 91719 (909) 371-1890 (909) 371-2168 FAX	1645 Pacific Ave. Suite 105 Oxnard, CA 93033 (805) 486-6475 (805) 486-9016 FAX	3540 Oakdale Rd. Suite A2 Modesto, CA 95357 (209) 551-2271 (209) 551-3593 FAX	42156 10th St W Unit E Lancaster, CA 93534 (805) 726-9676 (805) 726-9676 FAX	4560 S. Valley View Suite A-3 Las Vegas, NV 89103 (702) 795-2278 (702) 726-4485 FAX	235 S.W. 41st St. Renton, WA 98055 (206) 656-1266 (206) 656-1264 FAX

FAX COVER SHEET

*Inspection * Testing * Geotechnical
Environmental and Construction Engineering*

Telephone (619) 746-4955 Fax (619) 746-9806

DATE: 12-31-96

PAGES: 2 (INCLUDING COVER PAGE)

TO:
Company: NRC Walnut Creek California

Attention: Kent Prenelergast

Phone No: 1570 975 0255

Fax No: 1510 975 0381

RE: NRC License 1997

FROM: CONSTRUCTION TESTING & ENGINEERING, INC.

Ramona Jamma

MESSAGE: _____

ORIGINALS TO FOLLOW _____

IF TRANSMISSION IS INCOMPLETE, PLEASE CONTACT KERI



CONSTRUCTION TESTING & ENGINEERING, INC.

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December 31, 1996

United States Nuclear
Regulatory Commission, Region IV
1450 Maria Lane
Walnut Creek, CA 94596

ATTENTION: MR. KENT PRENDERGAST

Subject: NRC Application for Material License for 1997 Fiscal Year

Dear Mr. Prendergast:

The Radiation Safety Officer for Las Vegas office is Sheldon Baker. I made a mistake by writing Mr. Nick Hudyma's name as Radiation Safety Officer for Las Vegas office in the NRC application.

If you have any questions please contact the undersigned at (619) 746-4955.

Sincerely,

CONSTRUCTION TESTING & ENGINEERING, INC.

Ramzi Jamma

Ramzi Jamma
Corporate Radiation Safety Officer

RJ:lmk



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA	RIVERSIDE, CA	VENTURA, CA	MODESTO, CA	LANCASTER, CA	LAS VEGAS, NV	SEATTLE, WA
2414 Vineyard Ave Suite G Escondido, CA 92029 (619) 746-4955 (619) 746-9806 FAX	490 E. Princland Ct. Suite T Corona, CA 91719 (909) 371-1890 (909) 371-2168 FAX	1645 Pacific Ave. Suite 105 Oxnard, CA 93033 (805) 486-6475 (805) 486-9016 FAX	3540 Oakdale Rd. Suite A2 Modesto, CA 95357 (209) 551-2271 (209) 551-3593 FAX	42156 10th St W Unit K Lancaster, CA 93534 (805) 726-9676 (805) 726-9676 FAX	4560 S. Valley View Suite A-3 Las Vegas, NV 89103 (702) 795-2278 (702) 726-4485 FAX	235 S.W. 41st St. Renton, WA 98055 (206) 656-1266 (206) 656-1265 FAX

FAX COVER SHEET

*Inspection * Testing * Geotechnical
Environmental and Construction Engineering*

Telephone (619) 746-4955 Fax (619) 746-9806

DATE: 12-31-96

PAGES: 2 (INCLUDING COVER PAGE)

TO:
Company: NRC - Walnut Creek California

Attention: Kent Prendergast

Phone No: 1570 975 0255

Fax No: 1510 975 0381

RE: NRC License

FROM: CONSTRUCTION TESTING & ENGINEERING, INC.

Ramzi Jammal

MESSAGE: Grant Luetkens = Radiation Safety
officer for Reno office

ORIGINALS TO FOLLOW _____

IF TRANSMISSION IS INCOMPLETE, PLEASE CONTACT Keri

NEVADA STATE HEALTH DIVISION

RADIOACTIVE MATERIAL LICENSE

SUPPLEMENTARY SHEET

License Number 00-11-0363-01

Amendment No. 2

Construction Testing & Engineering, Inc.
32 Glen Carran Circle
Sparks, NV 89431

In accordance with letter dated February 1, 1996, signed by Tom Gaeto, Nevada Radioactive Material License No. 00-11-0363-01 is amended as follows:

TO CHANGE

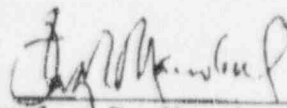
Conditions 11, 12 and 19.C. to read:

11. Gauges containing radioactive material shall be used only by Grant Luetkshans or by persons who have successfully completed the manufacturer's training course or an equivalent training course that has been evaluated and approved by the U.S. Nuclear Regulatory Commission or an Agreement State. The licensee shall review a user's credentials prior to authorization for use of radioactive materials under the license, maintain a list of individuals he has designated as users and maintain all applicable training records.
 12. The Radiation Safety Officer for the activities authorized by this license shall be Grant Luetkshans.
- 19.C. Letter dated March 13, 1996, from the Radiological Health Section.

DONALD S. KWALICK, M.D., M.P.H.
STATE HEALTH OFFICER
FOR THE NEVADA STATE HEALTH DIVISION

March 12, 1996

ram\ctei#2.amd

By 
Stanley R. Marshall, Supervisor
Radiological Health Section

572442



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA • RIVERSIDE, CA • VENTURA, CA • MODESTO, CA • LANCASTER, CA • LAS VEGAS, NV • SEATTLE, WA
 2414 Vineyard Ave. 490 E. Princland Ct. 1645 Pacific Ave. 3540 Oakdale Rd. 42156 10th St. W. 4560 S. Valley View 235 S.W. 41st St.
 Suite G Suite 7 Suite 105 Suite A2 Unit K Suite A-3 Renton, WA 98055
 Escondido, CA 92029 Corona, CA 91719 Oxnard, CA 93033 Modesto, CA 95357 Lancaster, CA 93534 Las Vegas, NV 89103 (206) 656-1266
 (619) 746-4955 (909) 371-1890 (805) 486-6475 (209) 551-2271 (805) 726-9676 (702) 795-2278 (206) 656-1265 FAX
 (619) 746-9806 FAX (909) 371-2168 FAX (805) 486-9016 FAX (209) 551-3593 FAX (805) 726-9676 FAX (702) 726-4485 FAX

FAX COVER SHEET

*Inspection * Testing * Geotechnical
 Environmental and Construction Engineering*

Telephone (619) 746-4955 Fax (619) 746-9806

DATE: 12-30-96

PAGES: 8 (INCLUDING COVER PAGE)

TO:
 Company: NRC - Walnut Creek Ca

Attention: Kent Pendergraft

Phone No: 1510 975 0255

Fax No: 1510 975 0381

RE: NRC License 1997 Fiscal year

FROM: CONSTRUCTION TESTING & ENGINEERING, INC.

Ramzi Jamma

MESSAGE: responds to comments attachment page 4 of 5 Sec 10.3
and 10.4. Appendix C-1 Radiation Safety program sec 2.1a
6.5.3-4, 9.0, 7.3 and 9.4

ORIGINALS TO FOLLOW _____

IF TRANSMISSION IS INCOMPLETE, PLEASE CONTACT KERI

10.2.3 CTE, Inc. is committed to provide one survey meter (0.1 to 100 mR/hr range) in each of Escondido, Oxnard and Modesto office by end of January 1997. Modesto office has a survey meter with range 0-10 mR/hr.. A total of 3 survey meters should provide adequate coverage for timely access in Sec. 10.2.2 above.

10.3 Leak tests will be performed at intervals not to exceed 6 months.

Leak Test Supplier: Pacific Nuclear Technology Co.
2545 W. Tenth Street, Suite N, Antioch, CA 94509
California License No. 5634-07
Leak Test Kit Model 86

CTE, Inc. is committed to follow supplier instruction for collecting leak test samples. See Appendix D-3 for supplier's procedures for analyzing samples collected using its kit and providing timely reports of leak test results to CTE.

The leak test will be performed by Radiation Safety Officers. To perform leak test remove the control panel from gauge front looking down into the gauge interior, locate the radiation source and wipe it and the area of source holder joint or weld with soap wetted cotton wipe; turn the gauge on one side and wipe the opening through which the source rod would protrude when indexing. The analysis of leak test samples is performed by Pacific Nuclear Technology Inc. Leak Test Kit will be checked by survey meter prior to mailing to Pacific Nuclear Technology Inc. Any leak test indicating contamination greater than 0.005 mR should be reported to NRC, Region IV 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011.

10.4 CTE, Inc. is conducting inventories every 6 months, to account for all sealed sources and devices received and possessed under the license. Corporate office will keep records of inventories of all branch offices.

10.5 Maintenance. All maintenance will always be performed with radioactive source in the safe shield position in accordance with manufacturer's directions or recommendations, and more extensive maintenance that requires removal of the source rod from the device will be performed by the gauge manufacturer.

10.6 CTE, Inc. had and will maintain current copies of applicable DOT regulations in each office and with every gauge user and will develop and implement procedures for complying with applicable DOT regulations.

10.7 See Appendix C-2 for Emergency Procedures. Also see Corporate Radiation Safety Program, Sec. 8 and 11.

10.7.1 CTE, Inc. is committed to having and implementing operating and emergency procedures as described in 10.6 above.

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

1.1.6 Assistant Radiation Safety Officer^S - (Management) Representative responsible for all phases of the Radiation Safety Program in the absence of the RSO and will report directly to the RSO. His job shall include training and qualification for Nuclear Gauge Operators' radiation safety certifications. He shall be a certified Safety Examiner.

1.1.7 Radiation Safety Officer (RSO) - A member of the management team of CTE with full authority and responsibility to administer and enforce the Radiation Safety Program. He shall have the authority to stop nuclear gauge activity until safety requirements have been satisfied and to discharge or suspend any individual who violates the rules and regulations in matters relative to radiation safety. He reports directly to the President or Vice President of the Company.

2.0 MONTHLY SAFETY MEETINGS/REFERESHER TRAINING

Project Managers shall be responsible for conducting refresher training for all Nuclear Gauge Operators and Trainees under their supervision at intervals of at least once each month.

2.1 Training. Such training shall include, but not be limited to, one of the following items each month:

- a) Agreement States or Nuclear Regulatory Commission (NRC) Rules and Regulations, Parts 19, 20, 21 and 49.
- b) Agreement States or NRC Radioactive Material License.
- c) Nuclear gauge equipment and detection instrument to be used.
- d) The Operating and Emergency Procedures.

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

6.3 Upon completion of an exposure, the source rod shall be returned to the "safe" or "off" position.

6.4 Upon completion of the scheduled testing, nuclear gauges that are not returned to the storage area shall be locked and physically secured to prevent tampering or removal by unauthorized personnel.

6.5 Notification Prior to Using Nuclear Gauges at Temporary Jobsites

States Radiation Safety personnel require Licensee to notify the agency, by phone and/or in writing, three (3) days if possible, prior to engaging in unauthorized temporary nuclear gauge operations within their jurisdiction or state. Notification is for locations other than those specifically listed on state licenses or registrations for non-agreement states. Nuclear Gauge Operators are required to contact the RSO, or the Safety Examiner, prior to engaging in unauthorized temporary nuclear gauge operations, who, in turn will notify respective state authorities.

6.5.1 The following information is required when notifying the RSO or Safety Examiner.

6.5.1.1 Location of operation (state, city, company, etc.)

6.5.1.2 Make, model and serial number (S/N) of device.

6.5.1.3 Specific time period (date, time, off-shift, etc.).

6.5.1.4 Individual (for the customer) who will be contacted (if possible).

6.5.2 Nuclear Gauge Operators shall contact the RSO or Safety Examiner as soon

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

as practical so that the required notice, in writing, can be completed and sent to the respective agency.

6.5.3 Nuclear Gauge Operators are required to have a current copy of each of the following documents prior to engaging in temporary operations.

6.5.3.1 Respective Agreement State License (if not licensed in the state - copy of our NRC and/or respective Agreement State License).

6.5.3.2 NRC or Agreement State Regulations, if applicable.

6.5.3.3 Operating and Emergency Procedures.

6.5.3.4 Current copy of 10 CFR Parts 19, 20 & 21 and NRC Form 3.

7.0 STORAGE OF NUCLEAR GAUGES

7.1 When not in use, nuclear gauges will be placed in the storage areas provided. All storage areas shall have a sign bearing the words, "**CAUTION -- RADIOACTIVE MATERIAL**" with the radiation symbol (magenta on yellow background). These signs shall be posted on the outside of the storage area.

7.2 A survey of the storage area containing the nuclear gauge(s) shall be made on the outside perimeters and the reading shall not exceed two (2) mR/hr.

7.2.1 Survey of storage areas shall be made each time a nuclear gauge(s) additional or new source) is added. A record of that survey shall be kept.

CONSTRUCTION TESTING & ENGINEERING, INC.
RADIATION SAFETY PROGRAM

- c) Sealed Source Inventory (quarterly).
- d) Radioactive Material Shipping documents.

8.3 Each form you use should be self-explanatory for completion. Complete the records and distribute the copies per the instructions on the forms. Make sure your signature, date and all required information are legible.

8.4 All records will be maintained for 3 years.

9.0 RADIATION SAFETY RECORDS MAINTAINED AT CORPORATE OFFICE

9.1 The following copies of records shall be maintained on the project, which are necessary for inspections by the Company, Agreement State, or NRC auditors:

- a) Film Badge Reports.
- b) Radiation Safety Program (Controlled Copy).
- c) NRC License and Agreement State License (when applicable), latest amendments.
- d) Records of radiation safety meetings, subject and individuals attending.
- e) Quarterly inventories.
- f) Leak Test Certificate.
- g) Survey Meter Calibration Certification.
- h) Individual's Radiation Safety Certification.
- i) Unannounced Inspection Reports.
- j) Inspection and Maintenance (semiannual).
- k) Radiation Safety Training Manual.
- l) Source Receipt, Transfer and Disposal Log.
- m) Safety Audits (system, facilities and equipment, yearly).

CONSTRUCTION TESTING & ENGINEERING, INC.
RADIATION SAFETY PROGRAM

- n) All required survey records.
- 9.2 Records for call-out jobs and projects, when less than six (6) months duration (temporary location), shall be maintained in the office of the RSO and/or on the jobsite where call-out is authorized.
- 9.3 Radiation Safety Officer (RSO) at each branch will conduct the audits on a semi-annually basis to assure records keeping compliance. Prior to allowing RSO's in each branch to conduct auditing and training, CTE will send RSO's to an appropriate Radiation Safety Class. CTE, Inc. is committed that within 1997 fiscal year every Radiation Safety Officer will have appropriate training in radiation safety.
- 9.4 All audits will be promptly reviewed by Corporate Radiation Safety Officer (CRSO) and management annually and all recommendations or concerns expressed by Corporate RSO will be implemented immediately.
- 9.5 Records will be maintained for a period of 3 years.

10.0 TRANSPORTING THE SOURCE

- 10.1 Approved Vehicle - Company vehicles, approved by the RSO or Safety Examiners of CTE, are the only approved vehicles to be used for transporting sealed sources.
- 10.2 Approved Drivers - Approved vehicles, carrying sealed sources, may be driven by Company employees with a current driver's license.
- 10.3 Preparation for Transport - Packaging of nuclear gauges and/or storage containers, containing radioactive material, shall be designed and selected to meet with all the requirements of the U. S. Department of Transportation (DOT), except when transported within the confines of the plant or other authorized location of use.



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA	RIVERSIDE, CA	VENTURA, CA	MODESTO, CA	LANCASTER, CA	LAS VEGAS, NV	SEATTLE, WA
2414 Vineyard Ave. Suite G Escondido, CA 92029 (619) 746-4955 (619) 746-9806 FAX	490 E. Prinseland Ct. Suite 7 Corona, CA 91719 (909) 371-1890 (909) 371-2168 FAX	1645 Pacific Ave. Suite 105 Oxnard, CA 93033 (805) 486-6475 (805) 486-9016 FAX	3540 Oakdale Rd. Suite A2 Modesto, CA 95357 (209) 551-2271 (209) 551-3593 FAX	42156 10th St. W. Unit K Lancaster, CA 93534 (805) 726-9676 (805) 726-9676 FAX	4550 S. Valley View Suite A-3 Las Vegas, NV 89103 (702) 795-2278 (702) 726-4485 FAX	235 S.W. 41st St. Renton, WA 98055 (206) 656-1266 (206) 656-1265 FAX

FAX COVER SHEET

*Inspection * Testing * Geotechnical
Environmental and Construction Engineering*

Telephone (619) 746-4955 Fax (619) 746-9806

DATE: 12-30-96

PAGES: 2 (INCLUDING COVER PAGE)

TO:
Company: NRC - Walnut Creek California

Attention: Kent Pendergast

Phone No: 1570 975 0255

Fax No: 1570 975 0381

RE: NRC license, 1997 fiscal year

FROM: CONSTRUCTION TESTING & ENGINEERING, INC.
Ramzi Jamma

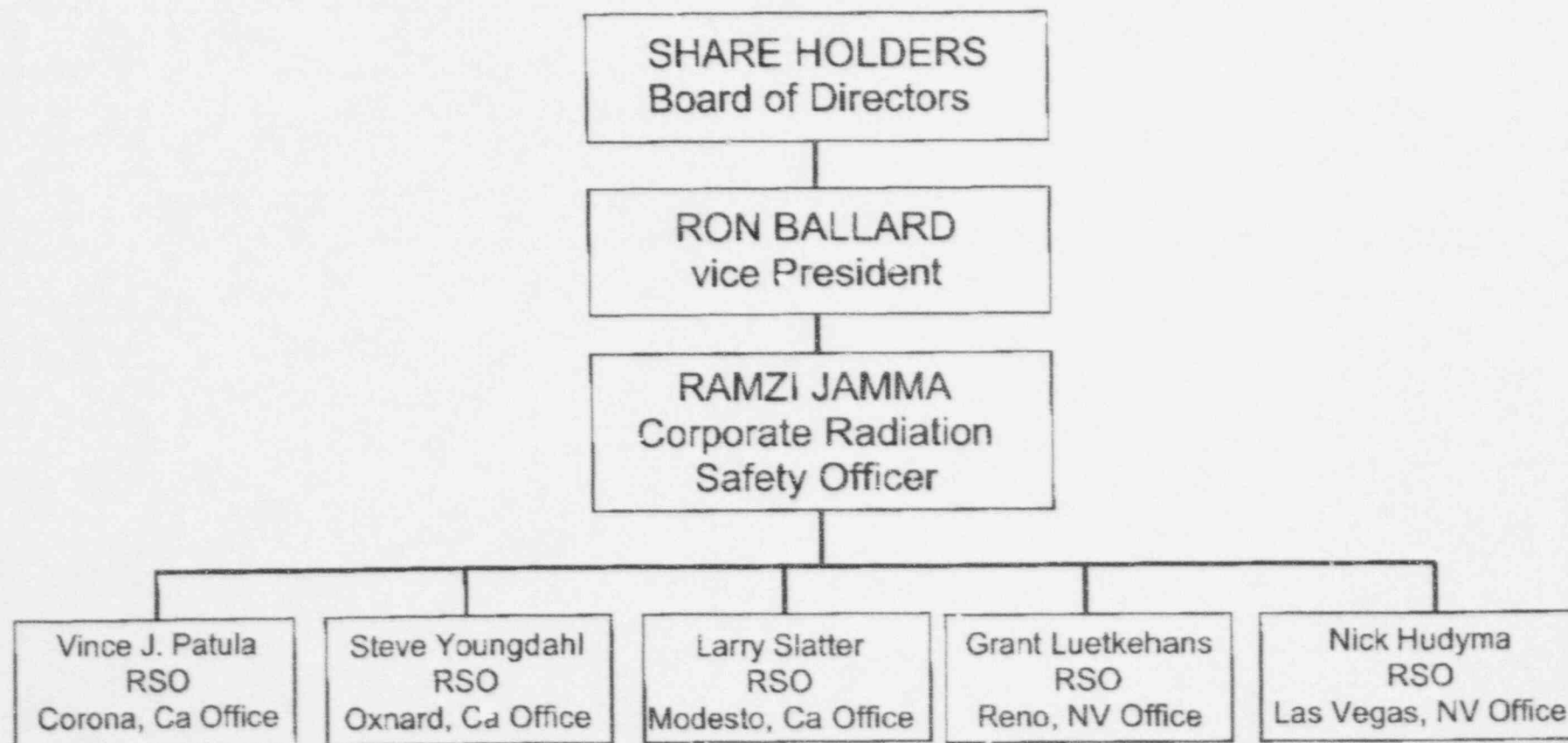
MESSAGE: Radiation safety organization structure

ORIGINALS TO FOLLOW _____

IF TRANSMISSION IS INCOMPLETE, PLEASE CONTACT KERI

CONSTRUCTION TESTING & ENGINEERING, INC.

RADIATION SAFETY ORGANIZATION STRUCTURE



RSO = Radiation Safety Officer



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA • RIVERSIDE, CA • VENTURA, CA • MODESTO, CA • LANCASTER, CA • LAS VEGAS, NV • SEATTLE, WA						
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FAX COVER SHEET

*Inspection * Testing * Geotechnical
Environmental and Construction Engineering*

Telephone (619) 746-4955 Fax (619) 746-9806

DATE: 12-30-96

PAGES: 15 (INCLUDING COVER PAGE)

TO:
Company: NRC - Walnut Creek California

Attention: Kent Prendergrast

Phone No: 1510 975 0255

Fax No: 1510 975 0381

RE: NRC application for license for 1997

FROM: **CONSTRUCTION TESTING & ENGINEERING, INC.**

Ramzi Janna

MESSAGE: Response to application comments by
Kent Prendergrast

ORIGINALS TO FOLLOW ✓

IF TRANSMISSION IS INCOMPLETE, PLEASE CONTACT KERI



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA	RIVERSIDE, CA	VENTURA, CA	MODESTO, CA	LANCASTER, CA	LAS VEGAS, NV	SEATTLE, WA
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December 30, 1996

United States Nuclear
Regulatory Commission, Region IV
1450 Maria Lane
Walnut Creek, CA 94596

ATTENTION: MR. KENT PRENDERGAST

Subject: NRC Application for Material License for 1997 Fiscal Year

Dear Mr. Prendergast:

I have reviewed your comments on application for NRC License Form 313 and attachments. Attached are revised copies of amended items in response to your comments. Furthermore, CTE, Inc. is committed to implement all requirements of Section 6.5.1 of Corporate Radiation Safety Program (Appendix C.1).

If you have any questions please contact the undersigned at (619) 746-4955. Thank you for your time and prompt response.

Respectfully submitted,

CONSTRUCTION TESTING & ENGINEERING, INC.

Ramzi Jamma
Radiation Safety Officer

RJ:lmk

NRC FORM 313 (10-94) 10 CFR 30, 32, 33 34, 35, 36, 38 and 40	U. S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 EXPIRES 6-30-98 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 8 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (7-6 F30), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.				
APPLICATION FOR MATERIAL LICENSE						
INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.						
APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH: DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS U. S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555-0001 ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS: IF YOU ARE LOCATED IN: CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO: LICENSING ASSISTANT SECTION NUCLEAR MATERIALS SAFETY BRANCH U. S. NUCLEAR REGULATORY COMMISSION, REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415 ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO: NUCLEAR MATERIALS LICENSING SECTION U. S. NUCLEAR REGULATORY COMMISSION, REGION II 101 MARIETTA STREET, NW, SUITE 2900 ATLANTA, GA 30323-0199						
IF YOU ARE LOCATED IN: ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO: MATERIALS LICENSING SECTION U. S. NUCLEAR REGULATORY COMMISSION, REGION III 801 WARRRNVILLE RD LISLE, IL 60532-4351 ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO: NUCLEAR MATERIALS LICENSING SECTION U. S. NUCLEAR REGULATORY COMMISSION, REGION IV 811 RYAN PLAZA DRIVE, SUITE 400 ARLINGTON, TX 76011-5084						
PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.						
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> 1. THIS IS AN APPLICATION FOR (Check appropriate item) <input checked="" type="checkbox"/> A. NEW LICENSE <input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER _____ <input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____ </td> <td style="width:50%; vertical-align: top;"> 2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code) Construction Testing & Engineering Inc. 2414 Vineyard Ave, Suite G Escondido, CA 92029 </td> </tr> </table>			1. THIS IS AN APPLICATION FOR (Check appropriate item) <input checked="" type="checkbox"/> A. NEW LICENSE <input type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER _____ <input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____	2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code) Construction Testing & Engineering Inc. 2414 Vineyard Ave, Suite G Escondido, CA 92029		
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3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED See Attachment 1		4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION Ramzi Jamma TELEPHONE NUMBER (619) 746-4955				
SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.						
5. RADIOACTIVE MATERIAL a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time. See Attachment 1		6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED See Attachment 1				
7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE. See Attachment 1		8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS. See Attachment 2				
9. FACILITIES AND EQUIPMENT. See Attachment 2		10. RADIATION SAFETY PROGRAM See Attachments 3-5				
11. WASTE MANAGEMENT. See Attachment 5		12. LICENSEE FEES (See 10 CFR 170 and Section 170.31) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">FEE CATEGORY</td> <td style="width:30%;">AMOUNT ENCLOSED \$</td> </tr> <tr> <td></td> <td>550.00</td> </tr> </table>	FEE CATEGORY	AMOUNT ENCLOSED \$		550.00
FEE CATEGORY	AMOUNT ENCLOSED \$					
	550.00					
13. CERTIFICATION: (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 38 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF. WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 52 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.						
CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE: Rod Ballard Vice President		SIGNATURE:  DATE: 12/30/96				
FOR NRC USE ONLY						
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS	
			\$			
APPROVED BY:				DATE:		

ATTACHMENT TO NRC FORM 313 - APPLICATION FOR MATERIAL LICENSE

Page 1 of 5

Item#3. Addresses where licensed material will be used or possessed:

- 1) 2414 Vineyard Avenue, Suite G, Escondido, CA 92029
- 2) 490 E. Prince Land Court, Suite #7, Corona, CA 91719
- 3) 1645 Pacific Avenue, #105, Oxnard, CA 93033
- 4) 3540 Oakdale Road, Suite A2, Modesto, CA 95357
- 5) 4560 Valley View Boulevard, Suite A3, Las Vegas, NV 89103
- 6) 32 Glen Carran Circle, Sparks, NV 89431

5. Radiation material Construction Testing and Engineering possess nuclear materials designated below:

<u>Nuclide</u>	<u>Form/Model</u>	<u>Possession Limit & Models</u>
A. Cesium 137/ Americium 241:Be	Sealed Sources (Troxler Dwg No. A-102112 and A-102451) Models: T3411B, T3440 and T4640	27 sources pairs not to exceed 9 mCi of cesium, and 44 mCi of Americium 241 each.
B. Cesium 137/ Americium 241:Be	Scaled sources (cpn #131) Models: MC2 and MC3	8 sources pairs not to exceed 10 mCi of cesium 137 and 50 mCi of Americium 241 each
C. Radium 226:Be	Sealed source (Radium chemical co. Model print No. 21.94, or Amersham Corp. RAN W25) Models: C-75 and C-100	2 sources not to exceed 45 mCi each

E. Construction Testing & Engineering is committed to not exceed 10 CFR 30.35(d) limits or maximum number of identical source/device combination.6. The purpose for which license material will be used is for measuring moisture and density of soil, concrete and asphalt.6.1 CTE, Inc. will not use nuclear gauges below a depth of 3'.7. Individuals responsible for Radiation Safety Program and their training and experience.

<u>Name</u>	<u>Position</u>	<u>Construction Testing & Engineering Facility</u>
1) Ramzi Y. Jamma	Corporate RSO & RSO	Escondido, California
2) Vince J. Patula	RSO	Corona, California
3) Steve M. Youngdahl	RSO	Oxnard, California
4) Larry Slater	RSO	Modesto, California

Attachment to NRC Form 313 (Continued)

Page 2 of 5

5) Nick Hudyma

R502

La Vegas, Nevada

6) Grant Luetkehans

RSO

Reno, Nevada

- 7.1 See Appendix A for list of training and qualifications for above individual RSOs.
- 7.2 The RSO duties will be those listed in Appendix C of NRC Guide (Draft Regulatory Guide DG-0008).
- 7.3.1 CTE is committed to authorize RSO to stop unsafe operation and has sufficient time to perform radiation safety duties and responsibilities. See attached letter. (Appendix D-1)
- 7.3.2 CTE Management will perform yearly review by company principal to insure that all applied federal and state regulations concerning radiation safety storage & transportation are being adhered to.
- 7.3.3 See Appendix D-4 for CTE's organizational chart that shows RSO position.
8. Manufacturer's course of use of Portable Soil Moisture Nuclear Gauges Training.
 - 8.1.1 CTE, Inc. is committed that before an individual is permitted to use a gauge, the individual will:
 - a) have successfully completed a gauge manufacturer's course that meets the criteria in Part I, Appendix D of NRC Guide (Draft Regulatory Guide DG-0008) and course instructor's qualification meet the criteria in Part II of Appendix D of this regulatory guide;
 - b) have received copies of and been trained in, the applicant's operating and emergency procedures; and
 - c) be designated as an authorized user by the RSO.
 - 8.1.2 CTE, Inc. is committed that refresher training will be provided to gauge users as per requirements of Appendix D of Draft Regulatory Guide DG-0008, to gauge users at intervals not to exceed one year.
 - 8.2 CTE, Inc. is committed to keep training records for 3 years.
9. Facility and Equipment
 - 9.1 CTE, Inc. facilities listed in Item 3 of NRC form 313 are all currently existing and are located in industrial zoning areas.
 - 9.2 The storage location of nuclear gauges for all CTE, Inc. facilities are shown in Appendix B.

- storage location in Escondido facility is 10'x10' room with locked door located inside the lab.
- storage location in Corona facility is 4'x10' cabinet with lock located inside laboratory.
- storage location in Oxnard facility is 4'x6.5'x6' cabinet with lock located inside laboratory.
- storage location in Reno facility is 2.5'x1.5'x6' cabinet with lock located inside laboratory.
- storage location in Las Vegas facility is 10'x10' room with locked door inside the laboratory.
- storage location in Modesto facility is 6.5' x 14' room with locked door located inside laboratory.

9.3 Securing Gauge in Vehicle. The gauge is locked inside storage case. The case is chained or wire-cable locked to truck bed. The chain/wire-cable should pass through all handles of case (normally 3). The end united at padlock and padlock snapped closed on hasp. There should be a minimum slack so that even if the hasp is broken, the gauge cannot be removed from the case. Gauges will be locked in trunk of a car or hidden from view while in locked van.

9.4 See Corporate Radiation Safety Program, Appendix C-1, Section 6 and 7..

9.5 No residence storage is allowed under any circumstances.

10. Radiation Safety Program - see Appendix C-1.

10.1 CTE, Inc. is committed to monitor all gauge users with using quarterly TLD's for personnel monitoring analyzed by RADIATION DETECTION COMPANY. Also see Appendix C-1, Section 3.

10.2 Radiation Detection Instruments

10.2.1 CTE is committed to have at least one survey meter at each job site. CTE survey meter is manufactured by Industrial Nuclear Corporation and has 0-10 mR/hr range. Calibration was performed by Lindlum Measurement, Inc., Sweetwater, Texas. See Appendix D-2 for calibration record. Calibration of survey meter will be performed annually by Radiation Detection Company.

10.2.2 Explanation of timely access to survey: At each job site we will have a survey meter, In case of incident, CTE can get the survey meter to job site in 2 hours. The survey meter is capable of measurement between 1 microsievert per hour and 1 millisievert per hour.

10.2.3 CTE, Inc. is committed to provide one survey meter (0.1 to 100 mR/hr range) in each of Escondido and Oxnard office by end of January 1997. Modesto office has their own survey meter. A total of 3 survey meters should provide adequate coverage for timely access in Sec. 10.2.2 above.

10.3 Leak tests will be performed at intervals not to exceed 6 months.

Leak Test Supplier: Pacific Nuclear Technology Co.

2545 W. Tenth Street, Suite N, Antioch, CA 94509

California License No. 5634-07

Leak Test Kit Model 86

CTE, Inc. is committed to follow supplier instruction for collecting leak test samples. See Appendix D-3 for supplier's procedures for analyzing samples collected using its kit and providing timely reports of leak test results to CTE.

The leak test will be performed by Radiation Safety Officers. To perform leak test remove the control panel from gauge front looking down into the gauge interior, locate the radiation source and wipe it and the area of source holder joint or weld with soap wetted cotton wipe; turn the gauge on one side and wipe the opening through which the source rod would protrude when indexing. The analysis of leak test samples is performed by Pacific Nuclear Technology Inc. Leak Test Kit will be checked by survey meter prior to use for any contamination. *for analysis*

mailing to Pacific Nuclear

10.4 CTE, Inc. is conducting inventories every 6 months, to account for all sealed sources and devices received and possessed under the license. *? Records 2,*

10.5 Maintenance. All maintenance will always be performed with radioactive source in the safe shield position in accordance with manufacturer's directions or recommendations, and more extensive maintenance that requires removal of the source rod from the device will be performed by the gauge manufacturer.

10.6 CTE, Inc. had and will maintain current copies of applicable DOT regulations in each office and with every gauge user and will develop and implement procedures for complying with applicable DOT regulations.

10.7 See Appendix C-2 for Emergency Procedures. Also see Corporate Radiation Safety Program, Sec. 8 and 11.

10.7.1 CTE, Inc. is committed to having and implementing operating and emergency procedures as described in 10.6 above.

10.7.2 CTE, Inc. is committed to provide a copy of operating & emergency procedure to all users of gauge before they begin using the gauges.

Attachment to NRC Form 313 (Continued)

Page 5 of 5

- 10.7.3 CTE, Inc. is committed to have a copy of Operating & Emergency Procedures at each job site.
- 10.7.4 See Appendix C.
- 10.8 CTE is committed to conduct audits every 12 months as described in Appendix I of Draft Regulatory Guide DG.0008. Radiation Safety Officers in each office will conduct audits. Corporate Radiation Safety Officer will visit each office and oversee and implement the audit procedure.
- 10.9.1 Financial assurance:
CTE, Inc. will not exceed maximum quantities in 10 CFR 30.35(d). Therefore there is no requirement for financial assurance. The storage locations is under state jurisdiction and NRC license will be maintained for convenience of work performed in exclusive federal jurisdiction.
- 10.9.2 Record keeping:
a) CTE is committed to maintain records of decommissioning if any.
b) CTE in Escondido will be the center for decommissioning records keeping location in case any leak test indicate source lost its integrity.
11. The disposal will be by transfer of radioactive material to person who is specifically licensed to receive and possess it.

EMERGENCY RESPONSE PHONE NUMBERS**Corporate Radiation Safety Officer**

Ramzi Jamma

Office 1-619-746-4955
Home 1-619-469-8053
Pager 1-619-918-8068

Alternate Radiation Safety Officer/Corporate

Jay F. Lynch

Office 1-800-576-4955
Home 1-619-593-2274
Statewide Pager 1-619-631-9101

Branch Radiation Safety Officer

Ramzi Jamma/Escondido

Office 1-800-576-4955
Home 1-619-469-8053
Statewide Pager 1-619-918-8068

Vince Patula/Corona

Office 1-909-371-1890
Home 1-909-678-0593
Statewide Pager 1-619-631-9084

Steve Youngdahl/Osnard

Office 1-805-486-6475
Home 1-805-645-2624
Statewide Pager 1-805-645-2920

State of California-Radiologic Health Branch

Los Angeles, days 1-213-580-5790
or 1-213-580-5788
Sacramento, days 1-916-445-0931
24 hours (Office of Emergency Svc.) 1-800-852-7550

CPN Boart Longyear 1-510-228-9770

Troxler California 1-916-631-0234
Troxler North Carolina 1-919-839-2676
Seaman Corp. 1-414-762-5100

NRC - Walnut Creek, California 1-800-882-4672
NRC - Arlington, Texas 1-800-952-9677
NRC - Headquarters, Washington D.C. . 1-301-415-7000
FIRE DEPT. 911
POLICE DEPT. 911

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

1.1.6 Assistant Radiation Safety Officer - (Management) Representative responsible for all phases of the Radiation Safety Program in the absence of the RSO and will report directly to the RSO. His job shall include training and qualification for Nuclear Gauge Operators' radiation safety certifications. He shall be a certified Safety Examiner.

1.1.7 Radiation Safety Officer (RSO) - A member of the management team of CTE with full authority and responsibility to administer and enforce the Radiation Safety Program. He shall have the authority to stop nuclear gauge activity until safety requirements have been satisfied and to discharge or suspend any individual who violates the rules and regulations in matters relative to radiation safety. He reports directly to the President or Vice President of the Company.

2.0 MONTHLY SAFETY MEETINGS/REFRESHER TRAINING

Project Managers shall be responsible for conducting refresher training for all Nuclear Gauge Operators and Trainees under their supervision at intervals of at least once each month.

2.1 Training. Such training shall include, but not be limited to, one of the following items each month:

- a) Agreement States or Nuclear Regulatory Commission (NRC) Rules and Regulations, Parts 19, 20, 21 and ~~35~~
- b) ~~Agreement States~~ or NRC Radioactive Material License.
- c) Nuclear gauge equipment and detection instrument to be used.
- d) The Operating and Emergency Procedures.
- e)

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

6.3 Upon completion of an exposure, the source rod shall be returned to the "safe" or "off" position.

6.4 Upon completion of the scheduled testing, nuclear gauges that are not returned to the storage area shall be locked and physically secured to prevent tampering or removal by unauthorized personnel.

→ 6.5 **Notification Prior to Using Nuclear Gauges at Temporary Jobsites**

States Radiation Safety personnel require Licensee to notify the agency, by phone and/or in writing, three (3) days if possible, prior to engaging in unauthorized temporary nuclear gauge operations within their jurisdiction or state. Notification is for locations other than those specifically listed on state licenses or registrations for non-agreement states. Nuclear Gauge Operators are required to contact the RSO, or the Safety Examiner, prior to engaging in unauthorized temporary nuclear gauge operations, who, in turn will notify respective state authorities.

6.5.1 The following information is required when notifying the RSO or Safety Examiner.

6.5.1.1 Location of operation (state, city, company, etc.)

6.5.1.2 Make, model and serial number (S/N) of device.

6.5.1.3 Specific time period (date, time, off-shift, etc.).

6.5.1.4 Individual (for the customer) who will be contacted (if possible).

6.5.2 Nuclear Gauge Operators shall contact the RSO or Safety Examiner as soon

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

as practical so that the required notice, in writing, can be completed and sent to the respective agency.

6.5.3 Nuclear Gauge Operators are required to have a current copy of each of the following documents prior to engaging in temporary operations.

6.5.3.1 Respective Agreement State License (if not licensed in the state - copy of our NRC and/or respective Agreement State License).

6.5.3.2 NRC or Agreement State Regulations, if applicable.

6.5.3.3 Operating and Emergency Procedures.

→ 6.5.3.4 Current copy of 10 CFR Parts 19 & 20 and ^{LC}~~NRC~~ Form 3. - add - 21

7.0 **STORAGE OF NUCLEAR GAUGES**

7.1 When not in use, nuclear gauges will be placed in the storage areas provided. All storage areas shall have a sign bearing the words, "CAUTION -- RADIOACTIVE MATERIAL" with the radiation symbol (magenta on yellow background). These signs shall be posted on the outside of the storage area.

7.2 A survey of the storage area containing the nuclear gauge(s) shall be made on the outside perimeters and the reading shall not exceed two (2) mR/hr.

7.2.1 Survey of storage areas shall be made each time a nuclear gauge(s) additional or new source) is added. A record of that survey shall be kept.

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

- c) Scaled Source Inventory (quarterly).
- d) Radioactive Material Shipping documents.

8.3 Each form you use should be self-explanatory for completion. Complete the records and distribute the copies per the instructions on the forms. Make sure your signature, date and all required information are legible.

→ 8.4 All records will be maintained for 3 years.

9.0

RADIATION SAFETY RECORDS MAINTAINED ON PROJECT

*at Corporate
office*

- 9.1 The following copies of records shall be maintained on the project, which are necessary for inspections by the Company, Agreement State, or NRC auditors:
- a) Film Badge Reports.
 - b) Radiation Safety Program (Controlled Copy).
 - c) NRC License and Agreement State License (when applicable), latest amendments.
 - d) Records of radiation safety meetings, subject and individuals attending.
 - e) Quarterly inventories.
 - f) Leak Test Certificate.
 - g) Survey Meter Calibration Certification.
 - h) Individual's Radiation Safety Certification.
 - i) Unannounced Inspection Reports.
 - j) Inspection and Maintenance (semiannual).
 - k) Radiation Safety Training Manual.
 - l) Source Receipt, Transfer and Disposal Log.
 - m) Safety Audits (system, facilities and equipment, yearly).

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

n) All required survey records.

9.2 Records for call-out jobs and projects, when less than six (6) months duration (temporary location), shall be maintained in the office of the RSO and/or on the jobsite where call-out is authorized.

→ 9.3 Radiation Safety Officer (RSO) at each branch will conduct the audits on a yearly basis to assure records keeping compliance.

→ 9.4 All audits will be promptly reviewed by Corporate Radiation Safety Officer (CRSO) and management and all recommendations or concerns expressed by Corporate RSO will be implemented immediately.

→ 9.5 Records will be maintained for a period of 3 years.

10.0 TRANSPORTING THE SOURCE

10.1 Approved Vehicle - Company vehicles, approved by the RSO or Safety Examiners of CTE, are the only approved vehicles to be used for transporting sealed sources.

10.2 Approved Drivers - Approved vehicles, carrying sealed sources, may be driven by Company employees with a current driver's license.

10.3 Preparation for Transport - Packaging of nuclear gauges and/or storage containers, containing radioactive material, shall be designed and selected to meet with all the requirements of the U. S. Department of Transportation (DOT), except when transported within the confines of the plant or other authorized location of use.

10.3.1 Procedure for the packaging requirements of nuclear gauges and/or storage containers can be found in Section VI, Source Shipping/Receiving Instruction Procedure, of this Program.

CONSTRUCTION TESTING & ENGINEERING, INC.**RADIATION SAFETY PROGRAM**

WITHOUT SPECIFIC INSTRUCTIONS FROM YOUR RSO. The RSO will ask questions at the emergency to determine the safest method of correction. Carefully follow his instructions.

- 11.6 Personnel Involved - Personnel involved in the emergency are barred from further work with or around radioactive sources until released by the RSO.
- 11.7 Equipment Involved - Equipment, which may have been damaged as a result of the emergency, shall not be used until released by the RSO.
- 11.8 Any individual, who believes that a violation of Company, Federal and/or State regulations has occurred or could possibly occur, should notify the RSO of the alleged violation. The RSO will in turn report any violation to appropriate NRC and/or state officials.

*pursuant to 20.2201, 2203
+ 42 CFR 30.50*

12.0 AGREEMENT STATES REQUIREMENTS

Agreement States are those states that have accepted the responsibility from the NRC for control of radioactive materials within their boundaries. The regulations governing radioactive materials within each agreement state parallel very closely to the regulations of the NRC. They do impose some additional requirements, however, and each Nuclear Gauge Operator shall be required to be familiar with these additional requirements.

12.1 Instructions

Each Nuclear Gauge Operator and Trainee shall have available copies of the Agreement States requirements for the particular state in which they are working, and when applicable. Agreement States's License.

New
030-34317

To: Kent Prendergast
From: Rod Ballard
Subject: Telephone Conversation of December 18, 1996
Date: December 19, 1996

95 DEC 20 1996
MEMORANDUM

As per your request by phone on December 18, 1996, the following explanation is provided concerning site visitation during 1996.

In late September and again on October 9, 1996, Rod Ballard of our office had a telephone conversation with Kent Pendergrast of the N.R.C. During these telephone conversations Mr. Ballard expressed the following to Mr. Prendergast:

1. CTE applied for and obtained reciprocity for all of 1995.
2. CTE applied for reciprocity late in 1996 due to an oversight. Specifically CTE reciprocity was approved in May 1996.
3. Mr. Ballard conveyed to Mr. Prendergast on both occasions that it was highly probable that site visits were made prior to the reciprocity application being approved and that a listing of both visits made during the time frames when reciprocity was in effect and during the time frame from January through April when a lapse in permit occurred.
4. Mr. Ballard agreed to have all site visits summarized and submitted to Mr. Prendergast for 1996.

A letter dated October 17, 1996 documented as requested all site visits during the time frame CTE had reciprocity. The letter written by Mr. Ramzi Jamma in correctly stated or implied that this list represented all site visits which was not the case.

The remaining visits have been compiled and are being sent by Mr. Jamma. As stated earlier CTE acknowledged that site visits occurred when CTE reciprocity was not current. The letter was simply worded badly.

I hope this explanation covers the matters discussed.

Rod Ballard

572442



CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA • RIVERSIDE, CA • VENTURA, CA • MODESTO, CA • LANCASTER, CA • LAS VEGAS, NV • SEATTLE, WA
 2414 Vineyard Ave. 490 E. Princeland Ct. 1645 Pacific Ave. 3540 Oakdale Rd. 42156 10th St. W. 4560 S. Valley View 235 S.W. 41st St.
 Suite G Suite 7 Suite 105 Suite A2 Unit K Suite A3 Renton, WA 98055
 Escondido, CA 92029 Corona, CA 91719 Oxnard, CA 93033 Modesto, CA 95357 Lancaster, CA 93534 Las Vegas, NV 89103 (206) 656-1266
 (619) 746-4955 (909) 371-1890 (805) 486-6475 (209) 551-2271 (805) 726-9676 (702) 795-2278 (206) 656-1265 FAX
 (619) 746-9806 FAX (909) 371-2168 FAX (805) 486-9016 FAX (209) 551-3593 FAX (805) 726-9676 FAX (702) 726-4485 FAX

UPDATED LIST OF SITE VISITATIONS FROM JANUARY THROUGH JUNE 1996

<u>Date</u>	<u>Site</u>
1/02/96	Camp Pendleton, CA
1/04/96	Camp Pendleton, CA
1/05/96	Camp Pendleton, CA
1/08/96	Camp Pendleton, CA
1/08/96	March AFB
1/09/96	Camp Pendleton, CA
1/09/96	29 Palms, CA
1/10/96	29 Palms, CA
1/17/96	Camp Pendleton, CA
1/17/96	Subbase, San Diego, CA
1/17/96	29 Palms, CA
1/19/96	29 Palms, CA
1/30/96	March AFB
2/02/96	Mira Mar, San Diego, CA
2/04/96	El Toro, CA
2/06/96	Mira Mar, San Diego, CA
2/07/96	Camp Pendleton, CA
2/08/96	Camp Pendleton, CA
2/09/96	Camp Pendleton, CA
2/09/96	Mira Mar, San Diego, CA
2/09/96	El Toro, CA
2/12/96	Mira Mar, San Diego, CA
2/13/96	Mira Mar, San Diego, CA
2/13/96	Camp Pendleton, CA
2/13/96	Subbase, San Diego, CA
2/13/96	El Toro, CA
2/14/96	Mira Mar, San Diego, CA
2/15/96	Subbase, San Diego, CA
2/15/96	Mira Mar, San Diego, CA
2/16/96	North Island, Coronado
2/16/96	Mira Mar, San Diego, CA
2/19/96	Mira Mar, San Diego, CA
2/20/96	Mira Mar, San Diego, CA

C:\PROJECTS\LETTERS\JAMMA\14.WPD

2/21/96	Mira Mar, San Diego, CA
2/23/96	Mira Mar, San Diego, CA
2/26/96	Mira Mar, San Diego, CA
2/26/96	32nd Street Naval Base
2/27/96	Camp Pendleton, CA
2/27/96	Mira Mar, San Diego, CA
2/29/96	Mira Mar, San Diego, CA
2/29/96	Camp Pendleton, CA
3/01/96	Camp Pendleton, CA
3/01/96	Mira Mar, San Diego, CA
3/04/96	Mira Mar, San Diego, CA
3/04/96	Camp Pendleton, CA
3/05/96	Mira Mar, San Diego, CA
3/06/96	Camp Pendleton, CA
3/07/96	Camp Pendleton, CA
3/08/96	Mira Mar, San Diego, CA
3/11/96	Mira Mar, San Diego, CA
3/11/96	Camp Pendleton, CA
3/11/96	Yuma MCAS
3/12/96	32nd Street Naval Base
3/12/96	Camp Pendleton, CA
3/12/96	Mira Mar, San Diego, CA
3/13/96	Mira Mar, San Diego, CA
3/13/96	32nd Street Naval Base
3/14/96	Camp Pendleton, CA
3/14/96	Camp Pendleton, CA
3/14/96	Mira Mar, San Diego, CA
3/15/96	Mira Mar, San Diego, CA
3/15/96	Camp Pendleton, CA
3/18/96	Camp Pendleton, CA
3/18/96	Mira Mar, San Diego, CA
3/19/96	Camp Pendleton, CA
3/19/96	Mira Mar, San Diego, CA
3/20/96	Mira Mar, San Diego, CA
3/21/96	Mira Mar, San Diego, CA
3/21/96	Camp Pendleton, CA
3/21/96	Camp Pendleton, CA
3/22/96	Camp Pendleton, CA
3/26/96	Moffit Field, CA
3/27/96	32nd Street Naval Base

3/27/96	Camp Pendleton, CA
4/01/96	Camp Pendleton, CA
4/01/96	Moffit Field, CA
4/04/96	Mira Mar, San Diego, CA
4/05/96	32nd Street Naval Base
4/08/96	Mira Mar, San Diego, CA
4/09/96	Camp Pendleton, CA
4/10/96	Camp Pendleton, CA
4/11/96	Camp Pendleton, CA
4/12/96	Camp Pendleton, CA
4/12/96	Mira Mar, San Diego, CA
4/15/96	32nd Street Naval Base
4/15/96	Camp Pendleton, CA
4/16/96	Camp Pendleton, CA
4/18/96	Camp Pendleton, CA
4/18/96	Moffit Field, CA
4/19/96	Camp Pendleton, CA
4/19/96	Mira Mar, San Diego, CA
4/19/96	North Island, Coronado
4/21/96	Camp Pendleton, CA
4/22/96	29 Palms, CA
4/22/96	29 Palms, CA
4/23/96	Camp Pendleton, CA
4/23/96	North Island, Coronado
4/23/96	Camp Pendleton, CA
4/23/96	Moffit Field, CA
4/26/96	Camp Pendleton, CA
4/29/96	MCRD
4/29/96	Camp Pendleton, CA
4/30/96	Mira Mar, San Diego, CA
4/30/96	Camp Pendleton, CA
4/30/96	MCRD
5/01/96	MCRD
5/01/96	Camp Pendleton, CA
5/01/96	Mira Mar, San Diego, CA
5/02/96	Mira Mar, San Diego, CA
5/03/96	Mira Mar, San Diego, CA
5/04/96	Mira Mar, San Diego, CA
5/05/96	29 Palms, CA
5/06/96	Mira Mar, San Diego, CA

5/07/96	Mira Mar, San Diego, CA
5/07/96	Camp Pendleton, CA
5/08/96	Camp Pendleton, CA
5/08/96	Mira Mar, San Diego, CA
5/09/96	Mira Mar, San Diego, CA
5/10/96	Subbase
5/10/96	Mira Mar, San Diego, CA
5/13/96	Camp Pendleton, CA
5/13/96	Mira Mar, San Diego, CA
5/14/96	Mira Mar, San Diego, CA
5/14/96	Camp Pendleton, CA
5/15/96	Camp Pendleton, CA
5/16/96	Mira Mar, San Diego, CA
5/17/96	Mira Mar, San Diego, CA
5/20/96	Mira Mar, San Diego, CA
5/21/96	Camp Pendleton, CA
5/23/96	San Pedro
5/30/96	Camp Pendleton, CA



December 19, 1996

CONSTRUCTION TESTING & ENGINEERING, INC.

29106 New

SAN DIEGO, CA	RIVERSIDE, CA	VENTURA, CA	MODESTO, CA	LANCASTER, CA	LAS VEGAS, NV	SEATTLE, WA
2414 Vineyard Ave. Suite G Escondido, CA 92029 (619) 746-4955 (619) 746-9806 FAX	490 E. Princland Ct. Suite 7 Corona, CA 91719 (909) 371-1890 (909) 371-2168 FAX	1645 Pacific Ave. Suite 105 Oxnard, CA 93033 (805) 486-6475 (805) 486-9016 FAX	3540 Oakdale Rd. Suite A2 Modesto, CA 95357 (209) 551-2271 (209) 551-3593 FAX	42156 10th St. W. Unit K Lancaster, CA 93534 (805) 726-9676 (805) 726-9676 FAX	4560 S. Valley View Suite A-3 Las Vegas, NV 89103 (702) 795-2278 (702) 726-4485 FAX	235 S.W. 41st St. Renton, WA 98055 (206) 656-1266 (206) 656-1265 FAX

United States Nuclear
Regulatory Commission, Region IV
1450 Maria Lane
Walnut Creek, CA 94596

ATTENTION: MR. KENT PRENDERGAST

Subject: NRC Application for Material License for 1997 Fiscal Year

Dear Mr. Prendergast:

Attached is an application for material license for the use of nuclear sealed sources in portable gauges in non-agreement states for 1997 fiscal year. Please find a check for \$550.00 and 3 copies of the following:

1. Application NRC Form 313;
2. Attachment to NRC Form 313, pages 1 through 5; and
3. Appendices A, B, C1, C2 and D as supporting documents and responses to various items on NRC Form 313.

If you have any questions please contact the undersigned at (619) 746-4955. Thank you for your time and assistance.

Respectfully submitted,

CONSTRUCTION TESTING & ENGINEERING, INC.

Ramzi Jamma

Ramzi Jamma
Radiation Safety Officer

RJ:lmk

(10-94)

10 CFR 30, 32, 33

34, 35, 36, 39 and 40

APPLICATION FOR MATERIAL LICENSE

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0011, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND,
MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA,
RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO
RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,
SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN,
SEND APPLICATIONS TO:

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD
Lisle, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,
LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA,
OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH,
WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
811 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

☒
☐
☐

A. NEW LICENSE

B. AMENDMENT TO LICENSE NUMBER _____

C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code)

Construction Testing & Engineering Inc.
2414 Vineyard Ave, Suite G
Escondido, CA 92029

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

See Attachment 1

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Ramzi Jamma

TELEPHONE NUMBER

(619) 746-4955

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number, b. chemical and/or physical form, and c. maximum amount
which will be possessed at any one time See Attachment 1

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED

See Attachment 1

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE

See Attachment 1

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

See Attachment 2

9. FACILITIES AND EQUIPMENT

See Attachment 2

10. RADIATION SAFETY PROGRAM

See Attachments 3-5

11. WASTE MANAGEMENT

See Attachment 5

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY

AMOUNT
ENCLOSED \$ 550.00

13. CERTIFICATION (Must be completed by applicant). THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Ramzi Jamma

SIGNATURE

Ramzi Jamma

DATE

12-19-96

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

Item#

3. Addresses where licensed material will be used or possessed:

- 1) 2414 Vineyard Avenue, Suite G, Escondido, CA 92029
- 2) 490 E. Prince Land Court, Suite #7, Corona, CA 91719
- 3) 1645 Pacific Avenue, #105, Oxnard, CA 93033
- 4) 3540 Oakdale Road, Suite A2, Modesto, CA 95357
- 5) 4560 Valley View Boulevard, Suite A3, Las Vegas, NV 89103
- 6) 32 Glen Carrat Circle, Sparks, NV 89431

5. Radiation material Construction Testing and Engineering possess nuclear materials designated below:

<u>Nuclide</u>	<u>Form/Model</u>	<u>Possession Limit & Models</u>
A. Cesium 137/ Americium 241:Be	Sealed Sources (Troxler Dwg No. A-102112 and A-102451) Models: T3411B, T3440 and T4640	27 sources pairs not to exceed 9 mCi of cesium, and 44 mCi of Americium 241 each.
B. Cesium 137/ Americium 241:Be	Sealed sources (cpn #131) Models: MC2 and MC3	8 sources pairs not to exceed 10 mCi of cesium 137 and 50 mCi of Americium 241 each
C. Radium 226:Be	Sealed source (Radium chemical co. Model print No. 21.94, or Amersham Corp. RAN W25) Models: C-75 and C-100	2 sources not to exceed 45 mCi each

E. Construction Testing & Engineering is committed to not exceed 10 CFR 30.35(d) limits or maximum number of identical source/device combination.

6. The purpose for which license material will be used is for measuring moisture and density of soil, concrete and asphalt.

7. Individuals responsible for Radiation Safety Program and their training and experience.

<u>Name</u>	<u>Position</u>	<u>Construction Testing & Engineering Facility</u>
1) Ramzi Y. Jamma	Corporate RSO & RSO	Escondido, California
2) Vince J. Patula	RSO	Corona, California
3) Steve M. Youngdahl	RSO	Oxnard, California
4) Larry Slater	RSO	Modesto, California
5) Nick Hudyma	RSO	La Vegas, Nevada
6) Grant Luetkehans	RSO	Reno, Nevada

- 7.1 See Appendix A for list of training and qualifications for above individual RSOs.
- 7.2 The RSO duties will be those listed in Appendix C of NRC Guide (Draft Regulatory Guide DG-0008).
- 7.3.1 CTE is committed to authorize RSO to stop unsafe operation and has sufficient time to perform radiation safety duties and responsibilities. See attached letter. (Appendix D-1)
- 7.3.2 CTE Management will perform yearly review by company principal to insure that all applied federal and state regulations concerning radiation safety storage & transportation are being adhered to.
- 7.3.3 See Appendix D-4 for CTE's organizational chart that shows RSO position.
8. Manufacturer's course of use of Portable Soil Moisture Nuclear Gauges Training.
- 8.1.1 CTE, Inc. is committed that before an individual is permitted to use a gauge, the individual will:
- a) have successfully completed a gauge manufacturer's course that meets the criteria in Part I, Appendix D of NRC Guide (Draft Regulatory Guide DG-0008) and course instructor's qualification meet the criteria in Part II of Appendix D of this regulatory guide;
 - b) have received copies of and been trained in, the applicant's operating and emergency procedures; and
 - c) be designated as an authorized user by the RSO.
- 8.1.2 CTE, Inc. is committed that refresher training will be provided to gauge users as per requirements of Appendix D of Draft Regulatory Guide DG-0008, to gauge users at intervals not to exceed one year.
9. Facility and Equipment
- 9.1 CTE, Inc. facilities listed in Item 3 of NRC form 313 are all currently existing and are located in industrial zoning areas.
- 9.2 The storage location of nuclear gauges for all CTE, Inc. facilities are shown in Appendix B.
- storage location in Escondido facility is 10'x10' room with locked door located inside the lab.

- storage location in Corona facility is 4'x10' cabinet with lock located inside laboratory.
 - storage location in Oxnard facility is 4'x6.5'x6' cabinet with lock located inside laboratory.
 - storage location in Reno facility is 2.5'x1.5'x6' cabinet with lock located inside laboratory.
 - storage location in Las Vegas facility is 10'x10' room with locked door inside the laboratory.
 - storage location in Modesto facility is 6.5' x 14' room with locked door located inside laboratory.
- 9.3 Securing Gauge in Vehicle. The gauge is locked inside storage case. The case is chained or wire-cable locked to trunk bed. The chain/wire-cable should pass through all handles of case (normally 3). The end united at padlock and padlock snapped closed on hasp. There should be a minimum slack so that even if the hasp is broken, the gauge cannot be removed from the case. Gauges will be locked in trunk of a car or hidden from view while in locked van.
- 9.4 See Corporate Radiation Safety Program, Appendix C-1, Section 6 and 7..
- 9.5 No residence storage is allowed under any circumstances.
10. Radiation Safety Program - see Appendix C-1.
- 10.1 CTE, Inc. is committed to monitor all gauge users with using quarterly TLD's for personnel monitoring analyzed by radiation detection company. Also see Appendix C-1, Section 3.
- 10.2 Radiation Detection Instruments
- 10.2.1 CTE is committed to have at least one survey meter at each job site. CTE survey meter is manufactured by Industrial Nuclear Corporation and has 0-10 mR/hr range. Calibration was performed by Lindlum Measurement, Inc., Sweetwater, Texas. See Appendix D-2 for calibration record.
- 10.2.2 Explanation of timely access to survey: At each job site we will have a survey meter, In case of incident, CTE can get the survey meter to job site in 2 hours. The survey meter is capable of measurement between .1 microsievert per hour and 1 millisievert per hour.

- 10.3 Leak tests will be performed at intervals not to exceed 1 year.
Leak Test Supplier: Pacific Nuclear Technology Co.
2545 W. Tenth Street, Suite N, Antioch, CA 94509
California License No. 5634-07
Leak Test Kit Model 86

CTE, Inc. is committed to follow supplier instruction for collecting leak test samples. See Appendix D-3 for supplier's procedures for analyzing samples collected using its kit and providing timely reports of leak test results to CTE.

The leak test will be performed by Radiation Safety Officers. To perform leak test, remove the control panel from gauge front looking down into the gauge interior, locate the radiation source and wipe it and the area of source holder joint or weld with soap wetted cotton wipe; turn the gauge on one side and wipe the opening through which the source rod would protrude when indexing. The analysis of leak test samples is performed by Pacific Nuclear Technology Inc.

- 10.4 CTE, Inc. is conducting inventories every 6 months, to account for all sealed sources and devices received and possessed under the license.
- 10.5 Maintenance. All maintenance will always be performed with radioactive source in the safe shield position in accordance with manufacturer's directions or recommendations, and more extensive maintenance that requires removal of the source rod from the device will be performed by the gauge manufacturer.
- 10.6 CTE, Inc. had and will maintain current copies of applicable DOT regulations and will develop and implement procedures for complying with applicable DOT regulations.
- 10.7 See Appendix C-2 for Emergency Procedures. Also see Corporate Radiation Safety Program, Sec. 8 and 11.
- 10.7.1 CTE, Inc. is committed to having and implementing operating and emergency procedures as described in 10.6 above.
- 10.7.2 CTE, Inc. is committed to provide a copy of operating & emergency procedure to all users of gauge before they begin using the gauges.
- 10.7.3 CTE, Inc. is committed to have a copy of Operating & Emergency Procedures at each job site.
- 10.7.4 See Appendix C.
- 10.8 CTE is committed to conduct audits as described in Appendix I of Draft Regulatory Guide DG.0008.

10.9.1 Financial assurance:

CTE, Inc. will not exceed maximum quantities in 10 CFR 30.35(d). Therefore there is no requirement for financial assurance. The storage locations is under state jurisdiction and NRC license will be maintained for convenience of work performed in exclusive federal jurisdiction.

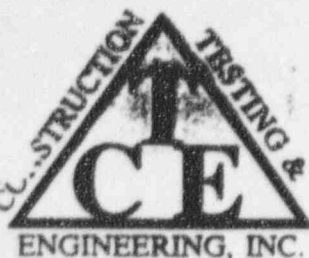
10.9.2 Record keeping:

- a) CTE is committed to maintain records of decommissioning if any.
- b) CTE in Escondido will be the center for decommissioning records keeping location in case any leak test indicate source lost its integrity.

- 11. The disposal will be by transfer of radioactive material to person who is specifically licensed to receive and possess it.

APPENDIX

A



CONSTRUCTION TESTING & ENGINEERING, INC.

ESCONDIDO • MODESTO • CORONA • OXNARD • LANCASTER • BENTON
2414 VINEYARD, Ste G 3540 OAKDALE RD Ste A2 490 E. PRINCELAND CT #7 1645 PACIFIC AVE #105 42156 10th ST. W, UNIT K 235 SW 4th ST.
ESCONDIDO, CA 92029 MODESTO, CA 95357 CORONA, CA 91719 OXNARD, CA 93033 LANCASTER, CA 93534 BENTON, WA 98025
(619) 746-4953 (209) 551-2271 (909) 371-1890 (805) 486-6475 (805) 726-9676 (209) 656-1266
FAX (619) 746-9806 FAX (209) 551-3593 FAX (909) 371-2168 FAX (805) 486-9016 FAX (702) 726-9676 FAX (206) 656-1265

STATEMENT OF TRAINING AND EXPERIENCE

1. NAME OF PROPOSED USER: RAMZI Y. JAMMA

ADDRESS:

STREET: 9039 LAMAR STREET

CITY: SPRING VALLEY

ZIP: CA 919977

TO BE INCLUDED ON LIC. NO. 5309-80

IN NAME OF: CONSTRUCTION TESTING AND ENGINEERING, INC.

2. DESCRIPTION OF

PROPOSED USE: SOIL MOISTURE AND DENSITY TESTING

3. TRAINING:

- A. HIGH SCHOOL GRADUATE: ☒ YES ☐ NO
- B. COLLEGE/UNIVERSITY: UNIVERSITY OF BAGHDAD
YEARS COMPLETED: 7 (SEVEN) DEGREE BS/MS
DEGREE: ☒ YES ☐ NO COURSE OF STUDY: CIVIL ENGINEERING
- C. EDUCATION SPECIFICALLY APPLICABLE TO USE OF RADIOACTIVE MATERIAL
1. RADIATION SAFETY & USE OF NUCLEAR GAUGES (C.P.M.)
 2. CTE CORPORATE RADIATION SAFETY PROGRAM INSTRUCTION
 3. CPN - RADIATION SAFETY COURSE

4. EXPERIENCE:

A. LIST EXPERIENCE WITH RADIOACTIVITY BEGINNING WITH MOST RECENT

1. DATES: FROM 1995 TO PRESENT

TITLE AND DUTIES: LAB MANAGER. SOIL AND CONSTRUCTION MATERIAL TESTING.

EMPLOYER: CONSTRUCTION TESTING & ENGINEERING, INC.

ADDRESS: STREET: 2414 VINEYARD AVENUE, SUITE G

CITY: ESCONDIDO

ZIP: CA 92029

2. DATES: FROM FEB. 1992 TO SEPT. 1995

TITLE AND DUTIES: LAB MANAGER - SOIL AND CONSTRUCTION MATERIAL TESTING

EMPLOYER: TESTING SERVICE & ENGINEERING, INC.

ADDRESS: STREET: 3030 MAIN STREET

CITY: SAN DIEGO

ZIP: CA 92123

3. DATES: FROM 1985 TO 1992

TITLE AND DUTIES: LAB SUPERVISOR - SOIL AND CONSTRUCTION MATERIAL TESTING.

EMPLOYER: LEIGHTEN & ASSOCIATES, SAN DIEGO, CA

- b. Radioactive materials previously used. Cite typical radioisotopes in appropriate box and key to Part 4.a above:

Quantities Handled

	Microcuries	Millicuries	Curies	Kilocuries
Sealed sources		10 mCi - Cesium 137/50 mCi Americadium	109 C11R192	
Unsealed alpha emitters				
Unsealed beta-gamma emitters				
Neutron sources				

- c. Describe procedures similar to those proposed in Part 2 with which you have had experience. Indicate months or years for each and key to Part 4.a above.

HAD 4 MONTHS EXPERIENCE HANDLING THE ABOVE MATERIALS. USED IN DENSITY GAUGES IN FIELD OPERATIONS TO TEST SOIL FOR COMPACTION AND MOISTURE.

- d. Indicate which types of facilities you have used and key to Part 4.a.

- ☐ Ordinary Chemical laboratories
- ☐ "Controlled Area" (Type B) laboratories
- ☐ Glove boxes
- ☐ Shielded glove boxes
- ☐ Caves with remote manipulators
- ☒ Field operations with portable equipment

5. Certificate:

I hereby certify that all information contained in this Statement is true and correct.

Ramona Zamora
SIGNATURE OF PROPOSED USER:

5-22-96
DATE:

Certificate Of Completion

This is to certify that RAMZI Y. JAMMA *has completed the*
CPN® Radiation Safety Officer Seminar for Nuclear Gauges,
held this 24th *day of* April *19* 96 *in the*
City of San Clemente *State of* CA *by Boart Longyear Company.*

Boart Longyear Company
2830 Howe Road
Martinez, California 94553 USA
Phone: (510) 228-9770
Fax: (510) 228-3183



Douglas Carter
INSTRUCTOR
Douglas Carter
RADIATION SAFETY OFFICER
Douglas Carter

No. 27258

Certificate Of Completion

This is to certify that RAMZI Y. JAMMA has completed the
 basic CPN® training course on Radiation Safety and Use of Nuclear Gauges,
 held this 10th day of January 19 87 in the
 City of Irvine State of CA by Boart Longyear Company.

Boart Longyear Company
 2830 Howe Road
 Mar Vista, California 94553 USA
 Phone: (510) 228-9770
 Fax: (510) 228-3183



[Signature]
 David H. Hays
 RADIATION SAFETY OFFICER
 William Mancuso

STATEMENT OF TRAINING AND EXPERIENCE

1. Name of proposed user: GRANT LUETKEHANS Position title: OPERATIONS MANAGER
Address: 2414 ARCADE AVE. City/State: RENO, NV Zip: 89503

To be included on Lic. No. 00-11-0363-01 in Name of CTE NEVADA, INC.

2. Description of proposed use: NUCLEAR GAUGE OPERATOR

3. Training:

- a. High School Graduate: Yes X No
b. College or University, Name and Location: UNIVERSITY OF NEVADA, RENO
Years completed: 5 Degree: BS Course of Study: RESOURCE MANAGEMENT
CE PENDING
c. Education specifically applicable to use of radioactive material:
PACIFIC NUCLEAR RSO TRAINING 1/16-96 CERT. # 11397

4. Experience:

- a. List experience with radioactivity beginning with most recent.
(1) Dates: From 10/94 to PRESENT

Title and duties: OPERATIONS MANAGER SINCE 8/95. RESPONSIBLE
FOR OVERALL
OPERATIONS OF RENO/SPARKS OFFICE. PROJECT Q.A.
SPECIALIST/NUCLEAR DENSITY TESTING FROM 10/94 TO 8/95

Employer: CTE NEVADA, INC. Address: 32 GLEN CARRAN CIRCLE

- (2) Dates: From 7/94 to 10/95

Title and duties: ENGINEERING TECHNICIAN- MONITORED 10 - 15 JOB SITES FOR A
ADHERENCE TO MUNICIPAL CODES

Employer: CITY OF RENO Address: SINCLAIR AVE., RENO, NV

- (3) Dates: From 6/91 to 7/94

Title and duties: PROJECT INSPECTOR- Q.A. AND MATERIALS
TESTING, NUCLEAR SOILS TESTING.

Employer: SEA, INC. Address: 950 INDUSTRIAL WAY, SPARKS, NV

- (4) Dates: From 9/89 to 6/91

Title and duties: PROJECT INSPECTOR- Q.A. AND MATERIALS
TESTING, NUCLEAR SOILS TESTING.

Employer: CTE, INC. Address: 2414 VINEYARD AVE., ESCONDIDO, CA

- b. Radioactive materials previously used. Cite typical radioisotopes in appropriate box and key to Part 4.a above:

	Microcuries	Millicuries	Curies	Kilocuries
Sealed sources		10 mCi - Cesium 137 / 50 mCi - Americium	109 CI IR192	
Unsealed alpha emitters				
Unsealed beta-gamma emitters				
Neutron sources				

- c. Describe procedures similar to those proposed in Part 2 with which you have had experience. Indicate months or years for each and key to Part 4.a above.

In place testing of engineering materials for moisture/density determinations from 4/84 to present.

- d. Indicate which types of facilities you have used and key to Part 4.a.

- ☐ Ordinary Chemical laboratories
- ☐ "Controlled Area" (Type B) laboratories
- ☐ Glove boxes
- ☐ Shielded glove boxes
- ☐ Caves with remote manipulators
- ☒ Field operations with portable equipment

5. Certificate:

I hereby certify that all information contained in this Statement is true and correct.

Brent L. Whitehawk
Signature of proposed user

Date 1/30/96

RADIATION SAFETY OFFICER TRAINING



This is to certify that

Grant Luetkehans

has successfully completed a four hour Radiation Safety Officer seminar, for the use of nuclear portable moisture density gauges. The seminar covered:

Duties and Responsibilities
Radiation Safety Review
Regulations Review
Radiation Safety Plan

Storage Design
Survey Meter Measurements
ALARA Responsibilities
Working Documents

Emergency Response
Records
Inspections
Check List

Pacific Nuclear Technology Co.

California License Number 5624-07

Date : January 16, 1996
Certificate Number : 11397

Instructor : William Mancuso

RETAIN A COPY FOR REVIEW BY REGULATORY AGENCY

STATEMENT OF TRAINING AND EXPERIENCE

1. NAME OF PROPOSED USER: Sheldon Baker

ADDRESS:

STREET: 4021 Clove Tree Ct.

CITY: North Las Vegas, NV

ZIP: 89031

TO BE INCLUDED ON LIC. NO. 5309-80

IN NAME OF: **CONSTRUCTION TESTING & ENGINEERING, INC.**

2. DESCRIPTION OF PROPOSED USE: *SOIL MOISTURE AND DENSITY TESTING*

3. TRAINING:

A. HIGH SCHOOL GRADUATE: ☒ YES ☐ NO

B. COLLEGE/UNIVERSITY:

YEARS COMPLETED: 2

DEGREE: ☐ YES ☒ NO

COURSE OF STUDY: Engineering Technology, UBC, Survey Log, Blueprints

C. EDUCATION SPECIFICALLY APPLICABLE TO USE OF RADIOACTIVE MATERIAL: Radiographer Level II, OSHA Hazardous Waste Inspector

4. EXPERIENCE:

A. LIST EXPERIENCE WITH RADIOACTIVITY BEGINNING WITH MOST RECENT:

1. DATES: FROM 7/96 TO Present

TITLE AND DUTIES: Manager

EMPLOYER: Construction Testing & Engineering, Inc.

ADDRESS:

STREET: 4500 South Valley View A-3

CITY: Las Vegas, Nevada

ZIP: 89103

2. DATES: FROM 7/92 TO 6/96

TITLE AND DUTIES: Owner/CEO

EMPLOYER: Baker & Associates

ADDRESS:

STREET:

CITY: Modesto, California

ZIP: 95350

3. DATES: FROM 5/88 TO 6/92
 TITLE AND DUTIES: Owner Rep
 EMPLOYER: PSI/American Engineering Laboratories
 ADDRESS: STREET:
 CITY: Modesto, California
 ZIP: 95350

B. Radioactive materials previously used. Cite typical radioisotopes in appropriate box and key to Part 4A above:

	Microcuries	MilliCuries	Curies	Kilocuries
Sealed Sources		10 mCi-Cesium 137/50 mCi-Americium	109 CI TR192	
Unsealed Alpha Emitters				
Unsealed Betagamma Emitters				
Neutron Sources				

C. Describe procedures similar to those proposed in Part 2 with which you have had experience. Indicate months or years for each and key to Part 4A above.

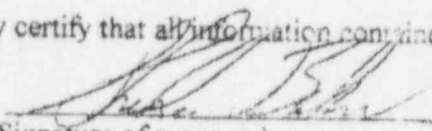
In place testing of engineering materials for moisture/density determinations from 4/84 to present.

D. Indicate which types of facilities you have used and key to Part 4A.

- ☐ Ordinary Chemical laboratories
- ☐ "Controlled Area" (Type B) laboratories
- ☐ Glove Boxes
- ☐ Shielded glove boxes
- ☐ Caves with remote manipulators
- ☒ Field operations with portable equipment

5. Certificate:

I hereby certify that all information contained in this Statement is true and correct.


 Signature of proposed user

10-28-96
 Date

Certificate of Completion

This is to certify that SHELDON BAKER *has completed the basic training*
course on Radiation Safety and Use of Nuclear Soil Gauges held
this 7TH *day of* NOVEMBER 19 84, *held at* HOLIDAY INN *City of* CONCORD

State of CALIFORNIA *by* Campbell Pacific Nuclear Corporation.

D. HARRIS
INSTRUCTOR

D. HARRIS
RADIATION SAFETY OFFICER

Certificate of Completion

This is to certify that SHELDON BAKER has completed the basic training
course on Radiation Safety and Use of Nuclear Soil Gauges held

this 7TH day of NOVEMBER 19 84, held at HOLIDAY INN City of CONCORD

State of CALIFORNIA by Campbell Pacific Nuclear Corporation,

D. HARRIS
INSTRUCTOR

D. PARKER
RADIATION SAFETY OFFICER

State of California - Health and Welfare Agency

Department of Health Services

Radiologic Health Branch
744 P Street
Sacramento, California 95814

STATEMENT OF TRAINING AND EXPERIENCE

(Use additional sheets as necessary)

Instruction: Every individual proposing to use radioactive material is required to submit a Statement of Training and Experience in duplicate to the address given above. Physicians should request Form RH-2000 A when applying for human use authorizations.

1. Name of proposed user: LARRY SLATER Position title: OPERATIONS MANAGER
Address: 23121 S HENRY City: RIVERBANK Zip: 95367
To be included on Lic. No. _____ in name of CONSTRUCTION TESTING & ENGINEERING

2. Description of proposed use: TO DETERMINE IN PLACE MOISTURE CONTENT & RELATIVE DENSITY OF CONSTRUCTION MATERIAL WITH A TROLER OR CPN. DEVICE

3. Training:

- a. High School Graduate: Yes X No GED
b. College or University: Name and location N/A
Years completed _____ Degree _____ Course of study _____
c. Education specifically applicable to use of radioactive material
O.T.T. w/US TESTING 8-8-91
TROXLER SAFETY CERT 1-15-92
RSD TRAINING CLASS 10-11-94

4. Experience:

- a. List experience with radioactivity beginning with most recent

(1) Dates: From 8-8-91 to 1-1-92
Title and duties: O.T.T. IN SOILS & STEEL INSPECTIONS

Employer: U.S. TESTING Address: 3540 OAKDALE RD Modesto Ca.

(2) Dates: From 1-1-92 to PRESENT
Title and duties: INSPECTOR TO OPERATIONS MANAGER

Employer: C.T.E. Address: 3540 OAKDALE RD Modesto Ca.

(3) Dates: From _____ to _____
Title and duties: N/A

Employer: _____ Address: _____

- h. Radioactive materials previously used. Cite typical radioisotopes in appropriate box and key to Part 4.a above:

	TROXLER Quantities Handled			
	Microcuries	Millicuries	Curies	Kilocuries
Sealed sources				
Unsealed alpha emitters				
Unsealed beta-gamma emitters				
Neutron sources				

- c. Describe procedures similar to those proposed in Part 2 with which you have had experience. Indicate months or years for each and key to Part 4.a above.

1. CTE) 4 YRS USE OF GAUGES IN FIELD OPERATION MANAGER

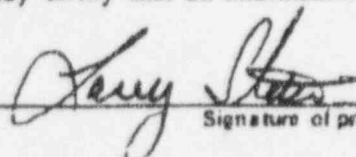
2. US TESTING) 6 MONTHS TRAINING (HANDS ON WITH GAUGES)

- d. Indicate which types of facilities you have used and key to Part 4.a.

- ☐ Ordinary Chemical laboratories
☐ "Controlled Area" (Type B) laboratories
☐ Glove boxes
☐ Shielded glove boxes
☐ Caves with remote manipulators
☒ Field operations with portable equipment

5. Certificate:

I hereby certify that all information contained in this Statement is true and correct.


 Signature of proposed user

2-6-96
 Date

Certificate of Completion

This Certifies that

LARRY L. SLATER

has successfully completed the

Troxler Radiation Safety Officer Course

conducted by the training program of

Troxler Electronic Laboratories, Inc.

Stewart Spraggins
STEWART SPRAGGINS

Instructor

10/11/94

Date

WILLIAM F. TROXLER

President

STATEMENT OF TRAINING AND EXPERIENCE

1. Name of proposed user: VINCENT J. PATULA Position title: PROJECT GEOLOGIST
Address: 5165 MOMONT AVENUE City: WILDOMAR Zip: 92595

To be included on Lic. No. 5309-80 in name of CONSTRUCTION TESTING & ENGINEERING, INC.

2. Description of proposed use
NUCLEAR GAUGE OPERATOR/BRANCH R.S.O.

3. Training:

- a. High School Graduate: Yes X No
b. College or University: Name and location ALLEGHENY COLLEGE, PA
Years completed 4 Degree B.S. Course of Study GEOLOGY
c. Education specifically applicable to use of radioactive material
1) CPN TRAINING COURSE FOR USE OF NUCLEAR TESTING EQUIPMENT
2) COLLEGE COURSES IN RADIOACTIVITY

4. Experience:

- a. List experience with radioactivity beginning with most recent
(1) Dates: From 3-92 to PRESENT

Title and duties: FIELD GEOLOGIST, GAUGE OPERATOR, BRANCH R.S.O.

Employer: Construction Testing & Eng. Inc. Address: 490 E. PRINCETLAND CT#7
CORONA, CA 91719

(2) Dates: From 4-88 to 3-92

Title and duties: FIELD GEOLOGIST, NUCLEAR GAUGE OPERATOR

Employer: U.S. TESTING Address: 3540 OAKDALE RD, MODESTO, CA

(3) Dates: From 2-86 to 4-88

Title and duties: FIELD GEOLOGIST, LAB TECH, NUCLEAR GAUGE OPERATOR

Employer: U.S. TESTING Address: 3467 KERTZ STREET, SAN DIEGO, CA

- b. Radioactive materials previously used. Cite typical radioisotopes in appropriate box and key to Part 4.a above:

Quantities Handled

	Microcuries	Millicuries	Curies	Kilocuries
Scaled sources		10 mCi - Cesium 137/50 mCi Americadium	109 C11R192	
Unsealed alpha emitters				
Unsealed beta-gamma emitters				
Neutron sources				

- c. Describe procedures similar to those proposed in Part 2 with which you have had experience. Indicate months or years for each and key to Part 4.a above.

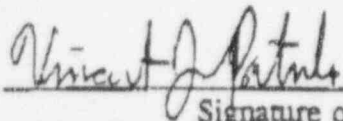
MARCH 1993-SEPTEMBER 1994 - BRANCH R.S.O. FOR CTE ITEM 4a-1

- d. Indicate which types of facilities you have used and key to Part 4.a.

- () Ordinary Chemical laboratories
- () "Controlled Area" (Type B) laboratories
- () Glove boxes
- () Shielded glove boxes
- () Caves with remote manipulators
- (x) Field operations with portable equipment 4a-1, 2, 3

5. Certificate:

I hereby certify that all information contained in this Statement is true and correct.



Signature of proposed user

2-16-95

Date

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

VINCENT J. PATULA

of

CONSTRUCTION TESTING & ENG.

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC.
TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

Radiological Safety

1. Principles and practices of radiation protection
2. Mathematics and statistics and medical radioactivity
3. Biological effects of radiation
4. Instrumentation
5. Radioactivity measurement standardization and monitoring techniques and instruments
6. Accident and incident procedures
7. Procedures for nuclear gauge storage and transportation
8. General safety precautions
9. Field application
10. Gauge calibration

Ted G. Nissen
TED G. NISSEN

INSTRUCTOR

CERTIFICATE #: 059041

6/17/93

DATE

WILLIAM F. TROXLER

PRESIDENT

Radiologic Health Branch
744 F Street
Sacramento, California 95814

STATEMENT OF TRAINING AND EXPERIENCE

(Use additional sheets as necessary)

Instruction: Every individual proposing to use radioactive material is required to submit a Statement of Training and Experience in duplicate to the address given above. Physicians should request Form RH 2000 A when applying for human use authorizations.

1. Name of proposed user: Steven M. Youngdahl Position title: operations manager
Address: 10990 Del Norte St #8 City: Ventura Zip: 93004
To be included on Lic. No. 5309-80 in name of Construction Testing & Engineering, Inc.
2. Description of proposed use Soil Density/Moisture Calculation Asphaltic Concrete
Density Calculation
3. Training:
 - a. High School Graduate: Yes x No
 - b. College or University: Name and location American River College (Sacramento)/ Sac State
Years completed 3 Degree Course of study Business/Psychology
 - c. Education specifically applicable to use of radioactive material
Completed training course for the use of Nuclear Testing Equipment given by
Troxler Electronic Labs.
4. Experience:
 - a. List experience with radioactivity beginning with most recent
(1) Dates: From 11/92 to Present
Title and duties: Operations Manager - Day to Day office, lab & Field operations
& Testing
Employer: Construction Testing & Eng. Address: 1222 Saviers Rd. Unit J Oxnard, 9309
(2) Dates: From 1988 to 8-91
Title and duties: Senior Engineering Tech/Field Supervisor-Concrete Department
Field Inspecting & Testing - Coordination
Employer: Terrasearch Inc. Address: Doublin, California
(3) Dates: From 84 to 88
Title and duties: Senior Engineering Tech. Project Coordination. Field Inspection/
Testing
Employer: Youngdahl & Assoc. Inc. Address: El Dorado Hills, Calif.

- b. Radioactive materials previously used. Cite typical radioisotopes in appropriate box and key to Part 4.a above:

- Quantities Handled -

	Microcuries	Millicuries	Curies	Kilocuries
Scaled sources		10 mCi cesium 137 50mc: Amer	109 CI IR192	
Unscaled alpha emitters				
Unscaled beta-gamma emitters				
Neutron sources				

- c. Describe procedures similar to those proposed in Part 2 with which you have had experience. Indicate months or years for each and key to Part 4.a above.

In place testing of engineering materials for moisture/density determinations from 1984 to present.

- d. Indicate which types of facilities you have used and key to Part 4.a.

- () Ordinary Chemical laboratories
- () "Controlled Area" (Type B) laboratories
- () Glove boxes
- () Shielded glove boxes
- () Caves with remote manipulators
- (x) Field operations with portable equipment

5. Certificate:

I hereby certify that all information contained in this Statement is true and correct.

Shirley M. G. [Signature] March 7, 1994
 Signature of proposed user Date

TROXLER ELECTRONIC LABORATORIES, INC.

HEREBY CERTIFIES THAT

Steven M. Youngdahl

of

Terrasearch, Inc.

HAS SUCCESSFULLY COMPLETED THE TROXLER ELECTRONIC LABORATORIES, INC.
TRAINING COURSE FOR THE USE OF NUCLEAR TESTING EQUIPMENT.

SUBJECTS INCLUDED IN THIS COURSE WERE AS FOLLOWS:

Radiological Safety

- | | |
|--|---|
| 1. Principles and practices of radiation protection. | 5. Radioactivity measurement standardization and monitoring techniques and instruments. |
| 2. Leak testing procedures. | 6. Accident and incident procedures. |
| 3. Mathematics and calculations basic to the use and measurement of radioactivity. | 7. Procedures for nuclear gauge storage and transportation. |
| 4. Biological effects of radiation. | 8. General safety precautions. |

Gauge Operation

- | | |
|-------------------------|----------------------|
| 1. Instrument theory | 4. Field application |
| 2. Operating procedures | 5. Gauge calibration |
| 3. Maintenance | |

Daniel R. Howe
INSTRUCTOR

May 18 & 19, 1982
DATE

W. F. TROXLER
PRESIDENT

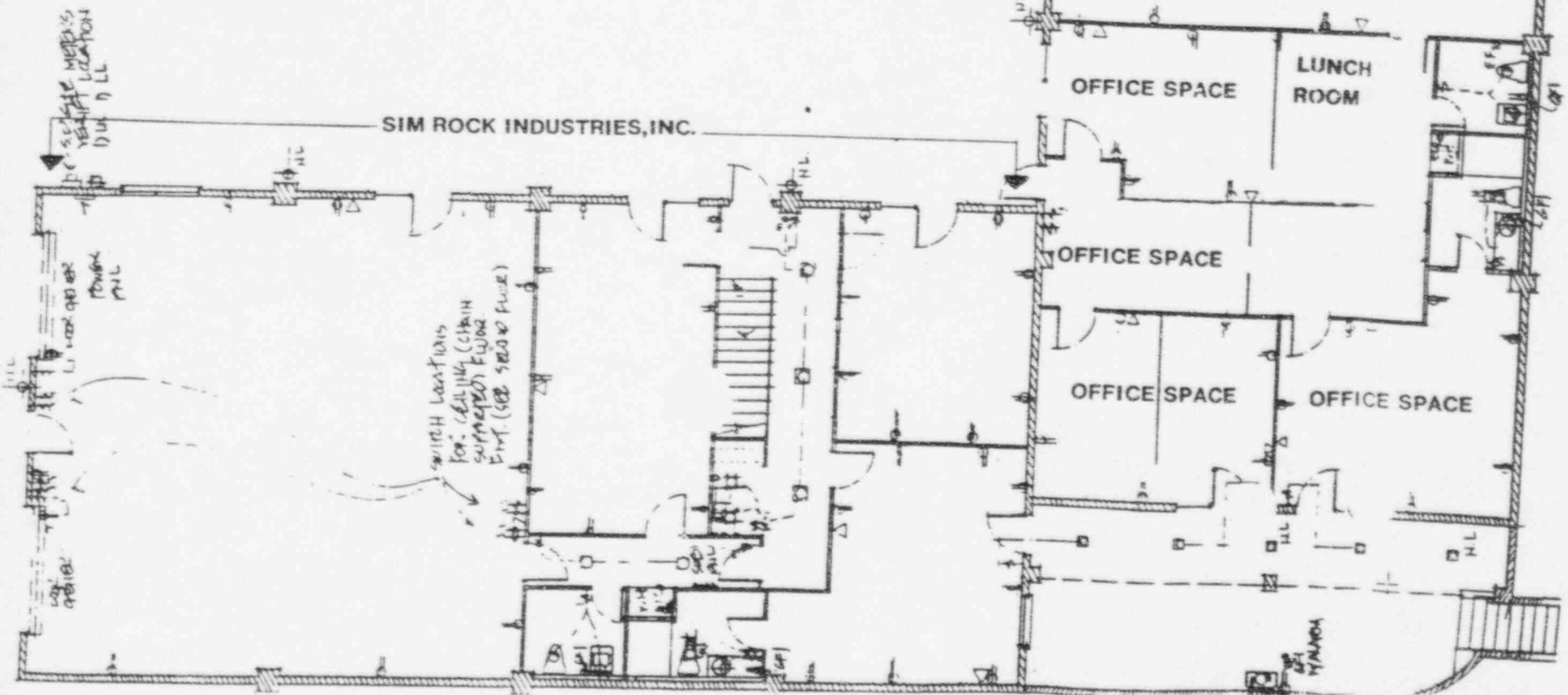
APPENDIX

B

CONSTRUCTION TESTING & ENGINEERING, INC.
2414 VINEYARD SUITE G
ESCONDIDO, CA. 92029
1ST FLOOR

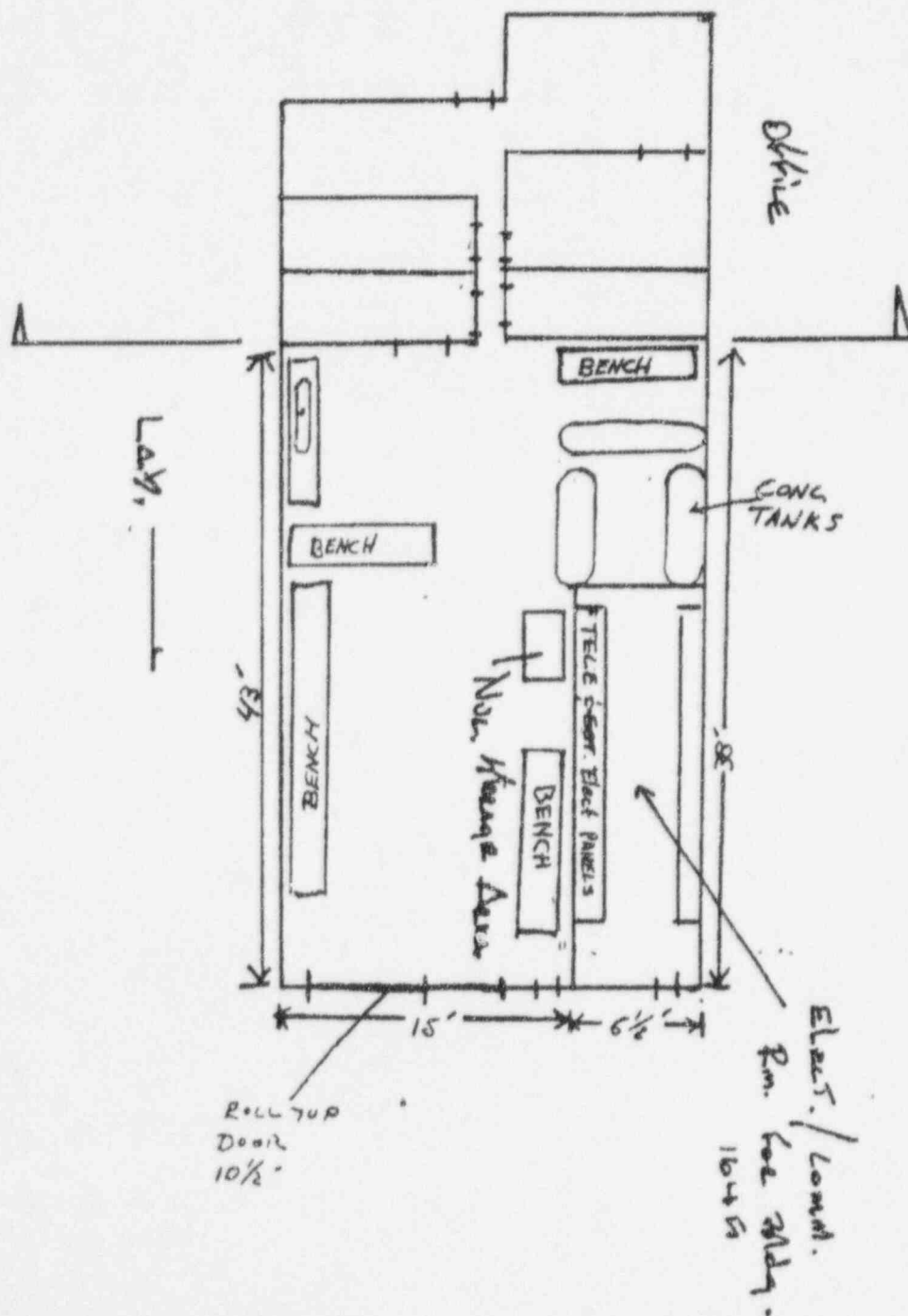


PREVAILING WIND DIRECTION



CTE - OXNARD
1645 PACIFIC AVE. SUITE 105
OXNARD CA

NUCLEAR GAGE STORAGE LOCATION



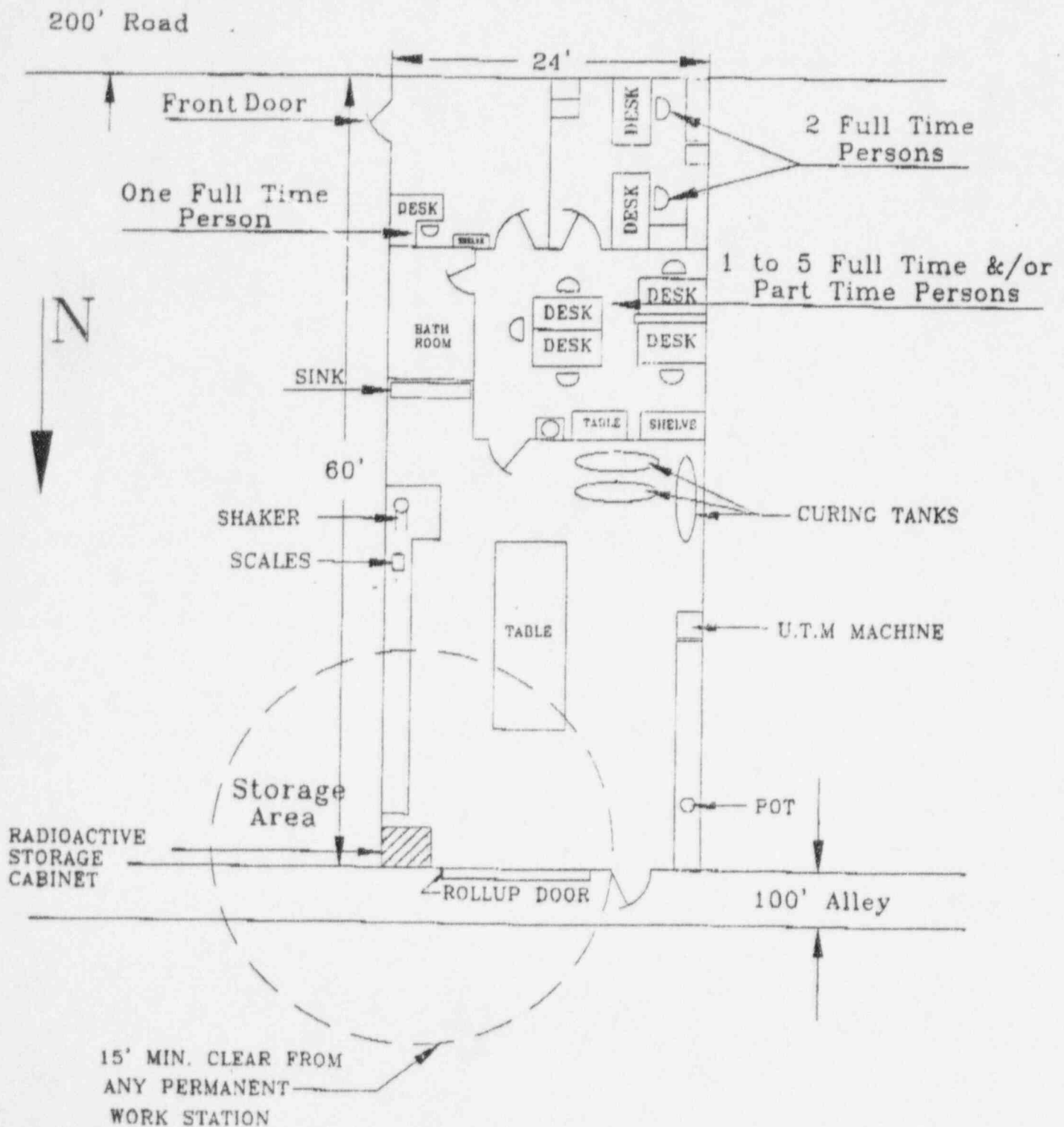
IND 1

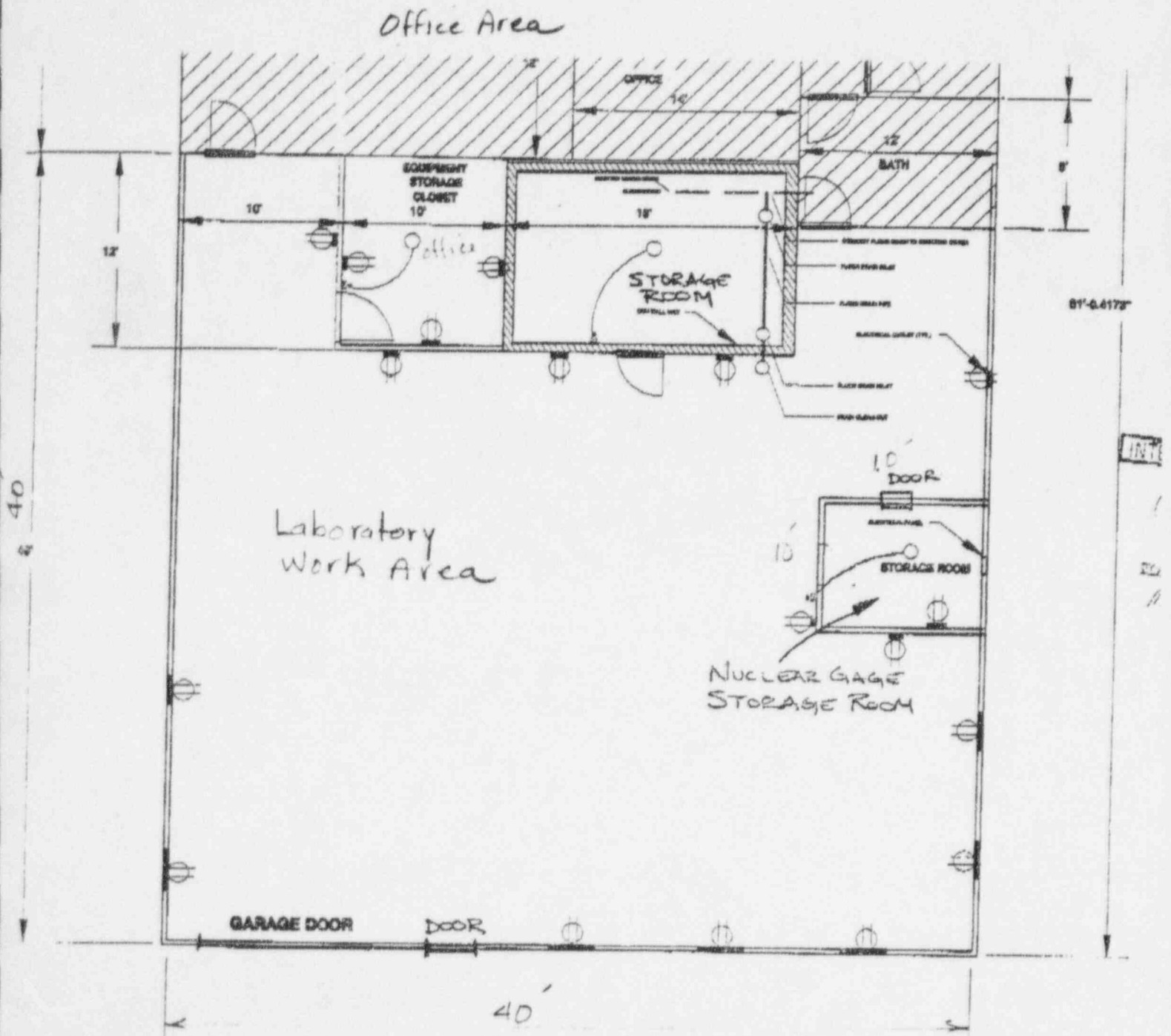
Use: No more nuclear

5/12/96

Nuc. Storage.

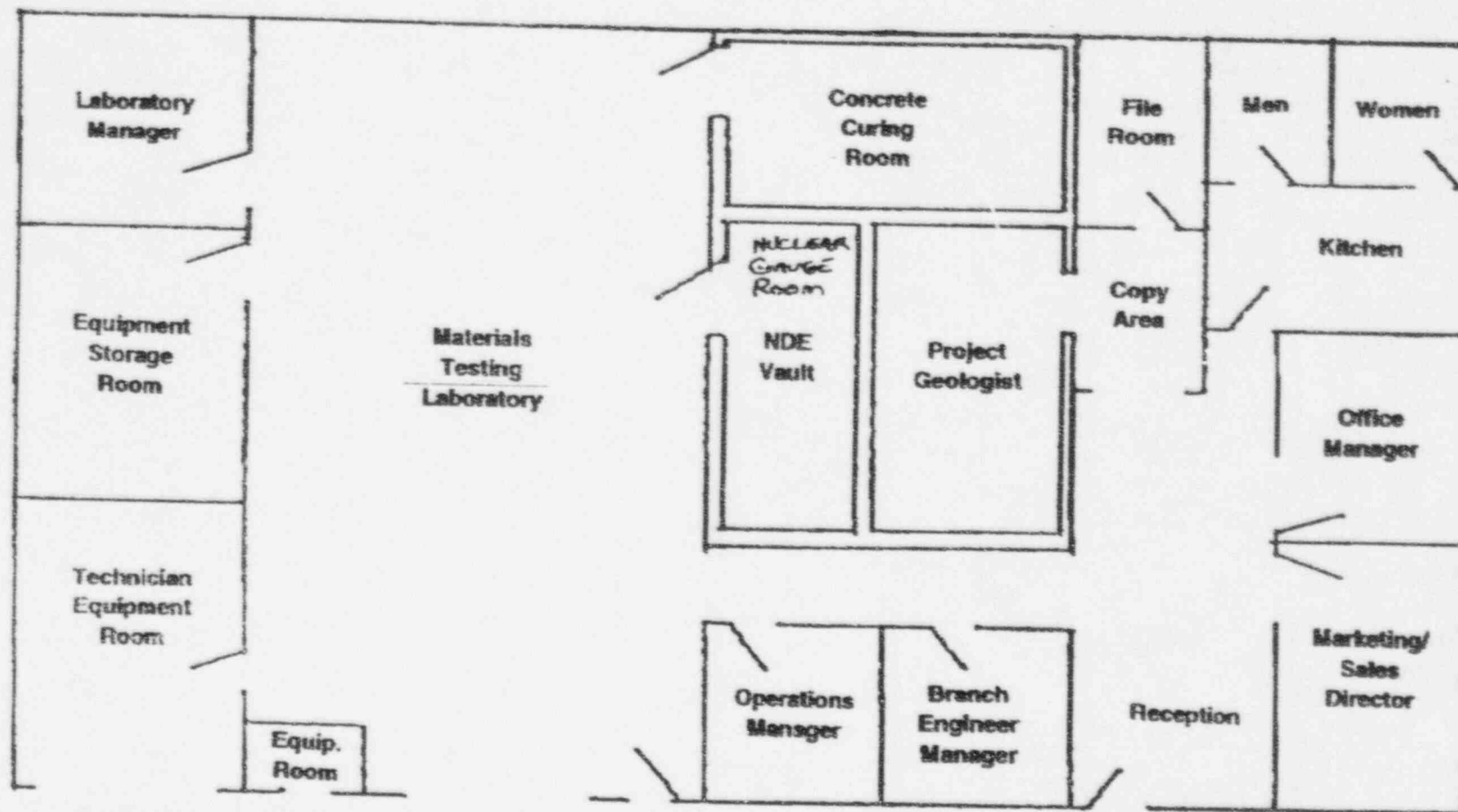
Floor Plan for Reno Office at 32 Glen Carren Circle Sparks, Nevada





Construction Testing and Engineering Inc
 4560 Valley View Blvd, Ste A3
 Las Vegas Nevada 89103

CONSTRUCTION TESTING & ENGINEERING, INC.
Floor Plan of Modesto Offices and Laboratory



APPENDIX

C - 1

CONSTRUCTION TESTING & ENGINEERING, INC.

2414 VINEYARD AVENUE, SUITE G
ESCONDIDO, CALIFORNIA 92029

**CORPORATE RADIATION SAFETY
PROGRAM**

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CONSTRUCTION TESTING & ENGINEERING, INC.

RADIATION SAFETY PROGRAM

1.0 INTRODUCTION

The Operating and Emergency Procedures is your guide to safe operation when working with radioactive sources. Have the Operating and Emergency Procedures available whenever you are using a source of radiation.

The Operating and Emergency Procedures include detailed instruction on performing your job in a safe manner, the rules you must follow in your work and useful bits of reference information.

1.1 Scope of Your Authority

Federal and/or Agreement State law specifies the tasks a person is allowed to perform when working with radioactive sources. The complexity of tasks allowed are based on the radiation safety training and experience of the employee. The levels of training experience and/or authority as used by CTE are identified as Trainee, Nuclear Gauge Operator, Safety Monitor, Project Manager, Safety Examiner, Assistant Radiation Safety Officer and Radiation Safety Officer (RSO).

1.1.1 Trainee - A Trainee is an individual who is in the process of training under the personal supervision of a Nuclear Gauge Operator, operates nuclear gauges and survey instruments.

1.1.1.1 Under the direct supervision of a Nuclear Gauge Operator, the Trainee may perform such duties as:

- a) operate nuclear gauges;
- b) operate survey instruments;
- c) perform daily maintenance inspections of equipment.

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RADIATION SAFETY PROGRAM

1.1.1.2 The responsibilities of the Trainee are as follows:

- a) Responsible for carrying out the directions of the Nuclear Gauge Operator within the limits specified below.
- b) Responsible for knowing what radiation levels to expect with the source in both the exposed and safe positions.

1.1.1.3 Limitations to his functions are as follows:

- a) Under no circumstances may a Trainee use nuclear gauges without the presence of a Nuclear Gauge Operator.
- b) The Trainee may not assume any of the duties or responsibilities specifically delegated to the Nuclear Gauge Operators.

1.1.2 Nuclear Gauge Operator - A Gauge Operator is an individual who uses or personally supervises the use of a nuclear gauge and is directly responsible to CTE's management for compliance with regulatory agencies and Company regulations.

1.1.2.1 The duties of a Gauge Operator include, but are not limited to:

- a) operation of survey instruments;
- b) operation of nuclear gauges;
- c) determination of the physical extent of the "Controlled Area";
- d) supervision of a Trainee;
- e) determination of the best setup with safety as the prime concern.

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RADIATION SAFETY PROGRAM

1.1.2.2.2 Responsibilities of the Gauge Operator include the following:

- a) The safety of all personnel from unnecessary radiation exposure;
- b) Compliance with requirements of the Radiation Safety Program;
- c) Immediately report to the Project Manager or Safety Monitor any emergency situation that occurs during nuclear gauge operations.

1.1.3 Safety Monitor - An employee with extensive experience and training in radiation safety who has been appointed (as required) to assist the Project Manager in maintaining a high standard of radiation safety. On matters of radiation safety, they report to a Safety Examiner.

1.1.4 Project Manager - The administrative head of each project. A certified Nuclear Gauge Operator, on matters of radiation safety, reports to a Safety Examiner and then to the RSO. He shall be held directly responsible for all safety on his project.

1.1.5 Safety Examiner - An employee with extensive experience and training in radiation safety whose job includes training and qualification for Nuclear Gauge Operators' radiation safety certification, except other Safety Examiners. He will be responsible to see that each Project Manager in his territory complies with all safety requirements.

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RADIATION SAFETY PROGRAM

1.1.6 Assistant Radiation Safety Officer - (Management) Representative responsible for all phases of the Radiation Safety Program in the absence of the RSO and will report directly to the RSO. His job shall include training and qualification for Nuclear Gauge Operators' radiation safety certifications. He shall be a certified Safety Examiner.

1.1.7 Radiation Safety Officer (RSO) - A member of the management team of CTE with full authority and responsibility to administer and enforce the Radiation Safety Program. He shall have the authority to stop nuclear gauge activity until safety requirements have been satisfied and to discharge or suspend any individual who violates the rules and regulations in matters relative to radiation safety. He reports directly to the President or Vice President of the Company.

2.0 MONTHLY SAFETY MEETINGS/REFERESHER TRAINING

Project Managers shall be responsible for conducting refresher training for all Nuclear Gauge Operators and Trainees under their supervision at intervals of at least once each month.

2.1 Training. Such training shall include, but not be limited to, one of the following items each month:

- a) Agreement States or Nuclear Regulatory Commission (NRC) Rules and Regulations, Parts 19, 20, 21 and 34.
- b) Agreement States or NRC Radioactive Material License.
- c) Nuclear gauge equipment and detection instrument to be used.
- d) The Operating and Emergency Procedures.

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RADIATION SAFETY PROGRAM

- e) Fundamentals of radiation safety.
- f) Prevention of overexposures to personnel.
- g) NRC case histories (monthly).
- h) Training in the transfer, packing and transport of radioactive material.

2.2 Project Managers. Project Managers shall maintain, available for inspection, records of safety meetings/refresher training, including:

- a) name(s) of instructor(s);
- b) names of individuals attending;
- c) dates and duration of training;
- d) topic(s) discussed.

3.0 PERSONNEL MONITORING

Your personal safety depends on the use of radiation monitoring devices. Before working with nuclear gauges, you must have available:

- a) Current Radiation Safety Certification;
- b) Operating and Emergency Procedures;
- c) Film badge;
- d) Applicable radioactive materials license.

3.1 Film Badge - Your quarterly TLD's is the most accurate record of your total radiation exposure. Wear it on your belt or pants waist band. Do not let anyone wear your badge. The badge will be processed by a Qualified TLD's service and the exposure data reviewed by the RSO. The data shall include:

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RADIATION SAFETY PROGRAM

- 3.1.1 Frequency of processing;
- 3.1.2 Starting date of badge use and processing date;
- 3.1.3 Reporting date
- 3.1.4 Employee name, social security number and date of birth;
- 3.1.5 Current dose (mREMs);
- 3.1.6 Cumulative dose (mREMs);
- 3.1.7 Film badges are to be stored during nonworking hours at the plant or shop where the testing is being done; do not store your film badge in an area where accidental exposure could occur; if your badge is lost, stop work immediately and call your Project Manager for replacement;
- 3.1.8 Film badges lost or not returned by individuals shall be investigated by the Project Manager; a report shall be made as to the reason for the badge not being returned along with the individual's corrective action for the prevention of its recurrence and copy forwarded to the RSO.

3.2 Permissible Dose Level

- 3.2.1 An individual, 18 years of age or over, may receive a dose to the whole body of five (5) REMs per calendar year provided that:
 - CTE has on file the individual's history of accumulated occupational dose to the whole body;
- 3.2.2 Individuals may receive a dose to the whole body of only 5.0 REMs per year when the requirements of Paragraph 3.2.1 are not met.
- 3.2.3 Individuals who receive a dose in excess of five (5) REMs will be notified of

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RADIATION SAFETY PROGRAM

the amount of the exposure in writing by the RSO, who will require the individual to submit a written explanation of the circumstances of the overexposure.

3.3 Survey Meter - The survey meter measures the radiation field strength and shall have a range such that two (2) mREM/hr. Through one (1) R/hr. Can be measured. Survey meter shall be used for:

- a) emergencies;
- b) minor maintenance;
- c) source shipping/receiving;
- d) gauge inspection;
- e) storage area surveys;
- f) leak testing

3.3.1 Survey meter shall be checked prior to use for normal functioning and current calibration date and should be performed annually. If functioning is abnormal or the date has expired, do not use the meter, contact your Project Manager.

3.4 TLD's shall be worn by all personnel when working with or around nuclear gauges.

4.0 NUCLEAR GAUGE OPERATING PROCEDURE

4.1 Removal from Storage

Unlock and open the storage container and remove the nuclear gauge.

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RADIATION SAFETY PROGRAM

4.2 Daily Equipment Inspection

The daily inspection of the nuclear gauge is for your safety. Equipment which is maintained in good working order seldom causes an emergency situation. Each nuclear gauge and accessories shall be inspected before use. This inspection shall be done before removal from the storage area.

4.2.1 Daily equipment inspection shall include, but not be limited to:

- a) general exterior condition;
- b) identification decals;
- c) source rod handle and connectors;
- d) locking mechanism, if applicable;
- e) shipping container.

5.0 CONTROLLING THE AREA

5.1 Responsibility of the Nuclear Gauge Operator

The Gauge Operator is responsible for establishing the controlled area.

5.1.1 The Gauge Operator shall determine the distance from the source to the perimeter of the controlled area.

5.2 Control

The Gauge Operator and Trainee (if used) shall guard against unauthorized personnel entering the controlled area.

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RADIATION SAFETY PROGRAM

6.0 USE OF NUCLEAR GAUGE

The Nuclear Gauge Operator is responsible for the safety of all personnel entering the controlled area. No one shall enter the area without the consent of the Nuclear Gauge Operator for each specific entry. If any person persists in entering the controlled area, secure the source until the person leaves. Report the problem to your Project Manager.

NOTE: When you warn persons of the danger of radiation, state the facts. Do not exaggerate.

During nuclear gauge operations, all personnel shall stay outside the controlled radiation area. The Operator and Trainees (if used) shall act as guards. They must be alert at all times to prevent anyone from entering the area.

6.1 Before using nuclear gauges, the Nuclear Gauge Operator and Trainee shall be thoroughly familiar with the procedures for determining and restricting the controlled area. All nuclear gauges shall be used in accordance with the manufacturers' operating instructions. The instruction manuals are required reading by all Nuclear Gauge Operator and Trainees.

6.2 The controlled area shall be under direct surveillance of the Nuclear Gauge Operator and/or the Trainee during all exposures.

6.2.1 No gauge shall be left unattended whereby unauthorized personnel could cause the source to be exposed, resulting in a hazard.

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RADIATION SAFETY PROGRAM

6.3 Upon completion of an exposure, the source rod shall be returned to the "safe" or "off" position.

6.4 Upon completion of the scheduled testing, nuclear gauges that are not returned to the storage area shall be locked and physically secured to prevent tampering or removal by unauthorized personnel.

6.5 Notification Prior to Using Nuclear Gauges at Temporary Jobsites

States require Licensee to notify the agency, by phone and/or in writing, three (3) days if possible, prior to engaging in unauthorized temporary nuclear gauge operations within their state. Notification is for locations other than those specifically listed on state licenses or registrations for non-agreement states. Nuclear Gauge Operators are required to contact the RSO, or the Safety Examiner, prior to engaging in unauthorized temporary nuclear gauge operations, who, in turn will notify the proper agency.

6.5.1 The following information is required when notifying the RSO or Safety Examiner.

6.5.1.1 Location of operation (state, city, company, etc.)

6.5.1.2 Make, model and serial number (S/N) of device.

6.5.1.3 Specific time period (date, time, off-shift, etc.).

6.5.1.4 Individual (for the customer) who will be contacted (if possible).

6.5.2 Nuclear Gauge Operators shall contact the RSO or Safety Examiner as soon

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RADIATION SAFETY PROGRAM

as practical so that the required notice, in writing, can be completed and sent to the respective agency.

6.5.3 Nuclear Gauge Operators are required to have a current copy of each of the following documents prior to engaging in temporary operations.

6.5.3.1 Respective Agreement State License (if not licensed in the state - copy of our NRC and/or respective Agreement State License).

6.5.3.2 NRC or Agreement State Regulations, if applicable.

6.5.3.3 Operating and Emergency Procedures.

7.0 STORAGE OF NUCLEAR GAUGES

7.1 When not in use, nuclear gauges will be placed in the storage areas provided. All storage areas shall have a sign bearing the words, "**CAUTION -- RADIOACTIVE MATERIAL**" with the radiation symbol (magenta on yellow background). These signs shall be posted on the outside of the storage area.

7.2 A survey of the storage area containing the nuclear gauge(s) shall be made on the outside perimeters and the reading shall not exceed two (2) mR/hr.

7.2.1 Survey of storage areas shall be made each time a nuclear gauge(s) additional or new source) is added. A record of that survey shall be kept.

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7.2.2 Survey of storage area shall be made monthly. A record of that survey shall be kept.

7.3 Storage areas shall be kept locked at all times, except when in use.

7.4 In the event operations are being conducted at a distance remote from the permanent storage area provided, the vehicle transporting the device may be used for storage by complying with Paragraphs 6.4, 10.3 and 10.4 of this procedure.

7.5 Temporary storage at job site, gauge has to be stored with triple locks, i.e., gauge is locked inside the case, locked inside storage room or cabinet, external door or gate of storage site locked too. Also, a sign bearing the words, "CAUTION -- RADIOACTIVE MATERIAL" with radiation symbol shall be posted on the door or storage cabinet.

8.0 COMPLETING THE RECORDS

8.1 Records are your evidence of compliance with the procedures of the Operating and Emergency Procedures. Your RSO shall insist that you properly document your work.

8.2 It shall be the Project Manager's responsibility for completion of the following records.

- a) Inspection and Maintenance Report (quarterly).
- b) Source receipt, transfer and disposal records.

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RADIATION SAFETY PROGRAM

- c) Sealed Source Inventory (quarterly).
- d) Radioactive Material Shipping documents.

8.3 Each form you use should be self-explanatory for completion. Complete the records and distribute the copies per the instructions on the forms. Make sure your signature, date and all required information are legible.

9.0 RADIATION SAFETY RECORDS MAINTAINED ON PROJECT

9.1 The following copies of records shall be maintained on the project, which are necessary for inspections by the Company, Agreement State, or NRC auditors:

- a) Film Badge Reports.
- b) Radiation Safety Program (Controlled Copy).
- c) NRC License and Agreement State License (when applicable), latest amendments.
- d) Records of radiation safety meetings, subject and individuals attending.
- e) Quarterly inventories.
- f) Leak Test Certificate.
- g) Survey Meter Calibration Certification.
- h) Individual's Radiation Safety Certification.
- i) Unannounced Inspection Reports.
- j) Inspection and Maintenance (semiannual).
- k) Radiation Safety Training Manual.
- l) Source Receipt, Transfer and Disposal Log.
- m) Safety Audits (system, facilities and equipment, yearly).

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RADIATION SAFETY PROGRAM

n) All required survey records.

9.2 Records for call-out jobs and projects, when less than six (6) months duration (temporary location), shall be maintained in the office of the RSO and/or on the jobsite where call-out is authorized.

10.0 TRANSPORTING THE SOURCE

10.1 Approved Vehicle - Company vehicles, approved by the RSO or Safety Examiners of CTE, are the only approved vehicles to be used for transporting sealed sources.

10.2 Approved Drivers - Approved vehicles, carrying sealed sources, may be driven by Company employees with a current driver's license.

10.3 Preparation for Transport - Packaging of nuclear gauges and/or storage containers, containing radioactive material, shall be designed and selected to meet with all the requirements of the U. S. Department of Transportation (DOT), except when transported within the confines of the plant or other authorized location of use.

10.3.1 Procedure for the packaging requirements of nuclear gauges and/or storage containers can be found in Section VI, Source Shipping/Receiving Instruction Procedure, of this Program.

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10.3.2 Shipping containers shall be securely fastened in vehicle to prevent shifting in transit.

10.3.2.1 Shipping container shall be placed in the vehicle in such a manner to prevent necessary exposure to personnel.

10.4 Overnight Stops - A radiation emergency could occur by:

- a) Unauthorized persons tampering with your equipment;
- b) Another vehicle striking your vehicle.

The chances of these emergencies occurring can be minimized by considering the following guidelines when you park:

- a) Make sure your vehicle is locked.
- b) Park in a well lighted area.
- c) Do not park on streets carrying heavy traffic.
- d) Residential stodge is not allowed by Department of Health Services under any circumstances.

11.0 HANDLING THE EMERGENCY

11.1 Introduction - This procedure is your instruction for handling an emergency involving a radioactive source. The RSO will provide step-by-step procedures for elimination of the emergency. The objective of this plan is to minimize the radiation exposure of all personnel involved.

CONSTRUCTION TESTING & ENGINEERING, INC.

RADIATION SAFETY PROGRAM

- 11.2 Application - These instructions apply to all field and laboratory operations of CTE.
- 11.3 Responsibility - The Nuclear Gauge Operator, who has been assigned the equipment, is responsible for the emergency action.
- 11.4 Emergency - An emergency is a condition, or potential condition, which may cause one (1) of the following:
- a) Overexposure, or potential overexposure, of any person in excess of the regulations.
 - b) Malfunctioning (except electronic), damaged, stolen or missing nuclear gauge.
 - c) Vehicle accidents, fires or other relative situations. The above emergencies, or potential emergencies, will be handled using the appropriate steps listed in this section, Paragraphs 11.5, 11.6 and 11.7.
- 11.5 Nuclear Gauge Operators' Action - Follow the instructions listed below:
- a) Assure all personnel are clear of controlled area.
 - b) No one shall be allowed to enter this area until the location of the sealed source has been determined. The safe position of the sealed source shall be determined by securing an operable survey instrument.
 - c) Contact the Project Manager, Ramzi Jamma, for further instructions. Call the 24-hour pager (619) 918-8068. Additional telephone numbers are listed on the cover sheet of this procedure. **DO NOT PROCEED**

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WITHOUT SPECIFIC INSTRUCTIONS FROM YOUR RSO. The RSO will ask questions about the emergency to determine the safest method of correction. Carefully follow his instructions.

- 11.6 Personnel Involved - Personnel involved in the emergency are barred from further work with or around radioactive sources until released by the RSO.
- 11.7 Equipment Involved - Equipment, which may have been damaged as a result of the emergency, shall not be used until released by the RSO.
- 11.8 Any individual, who believes that a violation of Company, Federal and/or State regulations has occurred or could possibly occur, should notify the RSO of the alleged violation.

12.0 AGREEMENT STATES REQUIREMENTS

Agreement States are those states that have accepted the responsibility from the NRC for control of radioactive materials within their boundaries. The regulations governing radioactive materials within each agreement state parallel very closely to the regulations of the NRC. They do impose some additional requirements, however, and each Nuclear Gauge Operator shall be required to be familiar with these additional requirements.

12.1 Instructions

Each Nuclear Gauge Operator and Trainee shall have available copies of the Agreement States requirements for the particular state in which they are working, and when applicable. Agreement States's License.

CONSTRUCTION TESTING & ENGINEERING, INC.

RADIATION SAFETY PROGRAM

12.2 Conflicts

When the Agreement States and Operating Emergency Procedures conflict, the most stringent requirement shall apply. If you are not sure which one to follow, contact the RSO.

13.0 INSPECTION AND MAINTENANCE PROCEDURE

Inspection and Maintenance Procedures are the daily actions taken by the Nuclear Gauge Operator to assure his equipment is in good working order.

13.1 Equipment shall be maintained in good condition by periodic inspection, testing, calibration and maintenance.

13.2 A maintenance/calibration label, when applicable, shall be placed on equipment to identify the date for the next servicing/calibration.

13.3 Nuclear Gauge

13.3.1 Daily inspections shall be conducted by the Nuclear Gauge Operator per the instructions of Paragraph 4.2 of this procedure.

13.3.2 Field Maintenance

- a) Servicing of the equipment, to correct minor deficiencies uncovered by the inspection, may be performed by the Nuclear Gauge Operator except when abnormal radiation levels are involved.

CONSTRUCTION TESTING & ENGINEERING, INC.

RADIATION SAFETY PROGRAM

- b) Units, when show abnormal radiation levels, shall be immediately removed from service and the Project Manager shall be contacted.

13.4 Special Inspection

Inspection shall be conducted whenever equipment is malfunctioning or has been subjected to damage or severe stress, such as dropping or submersion in water, etc. Nuclear gauges involved in emergencies shall be inspected per the instructions of the RSO. The report shall be identified, "Special Inspection" and include a description of the abnormal situation encountered.

13.5 Reject Tag

Any equipment found to be inoperable and/or out of calibration shall have a red reject tag (or equivalent) affixed and shall be removed from service.

14.0 CONTROL DOCUMENTS

Appendices

- A. Nevada State License
- B. Nevada Health Division Radiological Health Section, "Use of Sealed Sources Containing Radioactive Material in Portable and Semi-Portable Gauging Devices."

15.0 DEFINITIONS

- A. Byproduct Material - Any radioactive material, except special nuclear materials, yielded in, or made radioactive, by exposure to radiation incident to the process of producing or utilizing special nuclear material.

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RADIATION SAFETY PROGRAM

- B. Curie (Ci) - The unit of activity for measuring the quantity of radioactive material. One (1) Ci is that amount of material which yields 3.7×10^{10} disintegrations per second (dps), or the activity approximately equivalent to that of one (1) gram of radium. Commonly used submultiples of the Ci are the millicurie (mCi) and microcurie (uCi). One (1) mCi = $0.001 \text{ Ci} = 3.7 \times 10^7 \text{ dps}$. One (1) uCi = $0.000001 \text{ Ci} = 3.7 \times 10^4 \text{ dps}$.
- C. Nuclear Gauges are defined as exposure devices which emit gamma rays and neutrons and which may be used to determine density or moisture content of materials.
- D. Nuclear Gauge Operator - Any individual who performs, or who is in attendance at the site and personally supervises nuclear moisture density, and who is responsible to the licensee for assuring compliance with the requirements of NRC Regulations, Regulations of Agreement States, the conditions of the license and these procedures.
- E. Trainee - Any individual who, under the personal supervision of a Nuclear Gauge Operator, uses gauges and relative equipment.
- F. Roentgen Equivalent Man (REM) - A REM is a measure of dose of any ionizing radiation to body tissue relative to the estimated biological effect of exposure of one (1) R of x-ray. For the purpose of this procedure, one (1) "REM" and one "R" are identical for the reason that the sealed sources utilized in nuclear gauge operation do not emit Alpha or Beta radiation outside of the stainless steel capsule.
- G. Controlled Area - Any area access which is controlled for the purpose of protection of individuals from exposure to radiation.

CONSTRUCTION TESTING & ENGINEERING, INC.

RADIATION SAFETY PROGRAM

Note: Nuclear Gauge Controlled Area should not normally be greater than a radius of five (5) feet.

- H. Roentgen (R) - A Roentgen is a measure of the ionizing radiation in the air produced by x- or gamma radiation.
- I. Sealed Source - Any radioactive material that is encased in a capsule designed to prevent leakage or escape of the radioactive material.
- J. Shielding Material - Any material used to absorb radiation, and thereby, reduce its amount of intensity.
- K. Storage or Shipping Container - A shielded device in which sealed sources are placed for storage or transportation.
- L. Survey - The measurement of radiation intensities at various locations in an area where ionizing radiation exists.
- M. Personal Supervision of a Trainee by a Nuclear Gauge Operator means supervision in which the operator is physically present at the site where sealed sources are being used and watching the Trainee when using nuclear gauges, or related source-handling tools.

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RADIATION SAFETY PROGRAM

16.0 FORMS/FIGURES

FIGURE NO.		FORM NO.
1.	Radiation Survey Report - Storage Area	402
2.	Radiation Safety Meeting Monthly Record	403
3.	Reject Tag	895

EMERGENCY RESPONSE PHONE NUMBERS

Corporate Radiation Safety Officer

Ramzi Jamma

Office	1-619-746-4955
Home	1-619-469-8053
Pager	1-619-918-8068

Alternate Radiation Safety Officer/Corporate

Jay F. Lynch

Office	1-800-576-4955
Home	1-619-593-2274
Statewide Pager	1-619-631-9101

Branch Radiation Safety Officer

Ramzi Jamma/Escondido

Office	1-800-576-4955
Home	1-619-469-8053
Statewide Pager	1-619-918-8068

Vince Patula/Corona

Office	1-909-371-1890
Home	1-909-678-0593
Statewide Pager	1-619-631-9084

Steve Youngdahl/Osnard

Office	1-805-486-6475
Home	1-805-645-2624
Statewide Pager	1-805-645-2920

State of California-Radiologic Health Branch

Los Angeles, days	1-213-580-5790
or	1-213-580-5788
Sacramento, days	1-916-445-0931
24 hours (Office of Emergency Svc.)	1-800-852-7550

CPN Boart Longyear 1-510-228-9770

Troxler California	1-916-631-0234
Troxler North Carolina	1-919-839-2676
Seaman Corp.	1-414-762-5100

FIRE DEPT.	911
POLICE DEPT.	911

APPENDIX

C-2

STANDARD OPERATING AND EMERGENCY PROCEDURES

Operating Procedures

1. Before removing the gauge from its place of storage, check to make sure that the gauge source rod is in the shielded, locked position, then lock the transport case if possible.
2. Sign the gauge out in a log book, stating the dates of use, names of the authorized users who will be responsible for the gauge, and the temporary jobsites where the gauge will be used.
3. Never leave the gauge unattended while in your custody.
4. Follow all applicable Department of Transportation (DOT) requirements when transporting the gauge.
5. Do not touch the source rod with your fingers, hands, or any part of your body, and always make sure the source rod is in the shielded position after each measurement is made.
6. Always wear your assigned thermoluminescent dosimeter (TLD) or film badge when using the gauge.
7. Never wear another person's TLD or film badge.
8. Never store your TLD or film badge near the gauge.
9. Always keep unauthorized persons away from the area where the gauge is to be used.
10. Always maintain constant surveillance and immediate control of the gauge when it is not in storage.

11. To make gauges more visible to operators of heavy equipment at construction sites, always "stake and flag" each gauge, being sure that the flags are tall enough to be seen by heavy equipment operators.¹
12. Never look under the gauge when the source rod is being lowered into the ground.
13. After each measurement, always return the source to the shielded position and lock it there.
14. When the gauge is not in use at a temporary jobsite, place the gauge in a secured storage location (e.g., locked in the trunk of a car or locked in a storage shed).
15. Return the gauge to its proper storage location at the end of the work shift.
16. When the gauge is returned to storage, so indicate in the source log.

Emergency Procedures

If the source fails to return to the shielded position (e.g., as a result of being damaged) or if any other emergency or unusual situation arises (e.g., the gauge is struck by a moving vehicle, is dropped, or is in a vehicle involved in an accident):

1. Immediately secure the area around the gauge.
2. Prevent unauthorized personnel from entering the secured area.
3. If any heavy equipment is involved, detain the equipment until it is determined there is no contamination present.

¹A fiberglass whip with a flag at the top (available as a bicycle accessory) can be attached to the gauge to make its location more obvious to heavy equipment operators.

6.4 Review the reporting requirements, which are found in 10 CFR 20.2201-2203 and 10 CFR 30.50.

Attachment: Memo dtd 7/1/93

EMERGENCY RESPONSE PHONE NUMBERS

Corporate Radiation Safety Officer

Ramzi Jamma

Office 1-619-746-4955
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State of California-Radiologic Health Branch

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or 1-213-580-5788
Sacramento, days 1-916-445-0931
24 hours (Office of Emergency Svc.) 1-800-852-7550

CPN Boart Longyear 1-510-228-9770

Troxler California 1-916-631-0234
Troxler North Carolina 1-919-839-2676
Seaman Corp. 1-414-762-5100

FIRE DEPT. 911
POLICE DEPT. 911

APPENDIX

D

CONSTRUCTION TESTING & ENGINEERING, INC.



SAN DIEGO, CA • RIVERSIDE, CA • VENTURA, CA • MODESTO, CA • LANCASTER, CA • LAS VEGAS, NV • SEATTLE, WA
2414 Vineyard Ave. Suite G Escondido, CA 92029 (619) 746-4955 (619) 746-9806 FAX
490 E. Pringleland Ct. Suite 7 Corona, CA 91719 (909) 371-1890 (909) 371-2168 FAX
1645 Pacific Ave. Suite 105 Oxnard, CA 93033 (805) 486-6475 (805) 486-9016 FAX
3540 Oakdale Rd. Suite A2 Modesto, CA 95357 (209) 551-2271 (209) 551-3593 FAX
42156 10th St. W. Unit K Lancaster, CA 93534 (805) 726-9676 (805) 726-9676 FAX
4560 S. Valley View Suite A-3 Las Vegas, NV 89103 (702) 795-2278 (702) 726-4485 FAX
235 S.W. 41st St. Renton, WA 98055 (206) 656-1266 (206) 656-1265 FAX

RAMZI JAMMA
Corporate Radiation Safety Officer

SUBJECT: Duties and Responsibilities

Dear Mr. Jamma:

Construction Testing and Engineering has assigned you the position of Radiation Safety Officer. This position has priority over all of your other duties and awards you the authorization to stop any operation or personnel conducting unsafe operation involving a radioactive source.

If you have any questions regarding this directive please contact me.

Sincerely,

Rod Ballard
Vice President
Construction Testing and Engineering

RDB:lmk

LUDLUM MEASUREMENTS, INC.
POST OFFICE BOX 810 PH. 915-235-5494
501 OAK STREET FAX NO. 915-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

Model: 1 S/N: 964



Accessories: _____

COMMENTS: CAL REPAIRED LOOSE WIRE ON TUBE

$L \frac{1}{2}$ hr

[illegible]

Instrument Calibrated	<u>1</u>	at \$	<u>40.00</u>	Total Parts Cost	\$	<u>40</u>
Secondary Detectors		at \$		Total Calibration Charge	\$	<u>20</u>
Extended Calibration		at \$		Total Labor	\$	<u>60</u>
Labor	<u>0.5</u>	hour(s) at \$	<u>40.00</u>	Sub-total Calibration, Parts, and Labor	\$	
		per hour		Shipping Charges	\$	
				Total Charges	\$	

Signed Bob Weems Date 5-10-96

Q/C Released Phonetic Name Date 5-11-96

Date: 5/13/96 Contacted VINCENT PATULA By ~
 File # 100-368611 File # 100-368611 Phone # 509-371-1890

**DO NOT PAY!
INVOICE TO FOLLOW**

LEAK TEST KIT

MODEL 86

This kit meets the USNRC and Agreement States requirements for leak testing sealed sources installed in portable moisture density gauges and fixed in-plant gauges. Calif. Lic No. 5634-07.

Pacific Nuclear Technology Co.
2545 W. Tenth St., Suite N
Antioch, CA 94509
(510) 706-8300
(510) 706-8396 FAX

STAPL :

LEAK TEST INSTRUCTIONS

Refer to the gauge manufacturer's instructions and use this kit accordingly. Properly identify the gauge model number and the radioactive material on this form.

If instructions are not available from the gauge manufacturer, swab in areas of source holder joints, welds, etc. Contact us or your local Public Health Office for assistance.

A leak test showing removable contamination less than 0.005 microcurie is normally required every six months. Sealed sources installed in gauges have been given a waiver to one year by the State of California. Other regulatory agencies may honor this period if requested. Check your license.

1. Remove the swab from the plastic bag, dampen it, and swab the appropriate area.
2. Return the swab to the plastic bag. Break the stick near its mid point to show it has been used and to make it easier to fold. Staple the bag to this form.
3. Complete this form. Check off when the next test is due.
4. Mail the completed form and swab to the address on the front. A peel off label is supplied for your convenience.
5. A report will be mailed within five working days. If not satisfactory, you will be contacted by telephone or FAX.

OWNER/GAUGE INFORMATION

Date of test _____

Model No: _____

Serial No: _____

Isotope:

Cesium-137: _____ mCi

Americium-241: _____ mCi

_____ mCi

_____ mCi

FAX No: _____

Phone No: _____

RSO's Name: _____

Organization: _____

Address: _____

City: _____

State: _____

Zip: _____

ORDERING INFORMATION

Enclosed is a kit to be analyzed

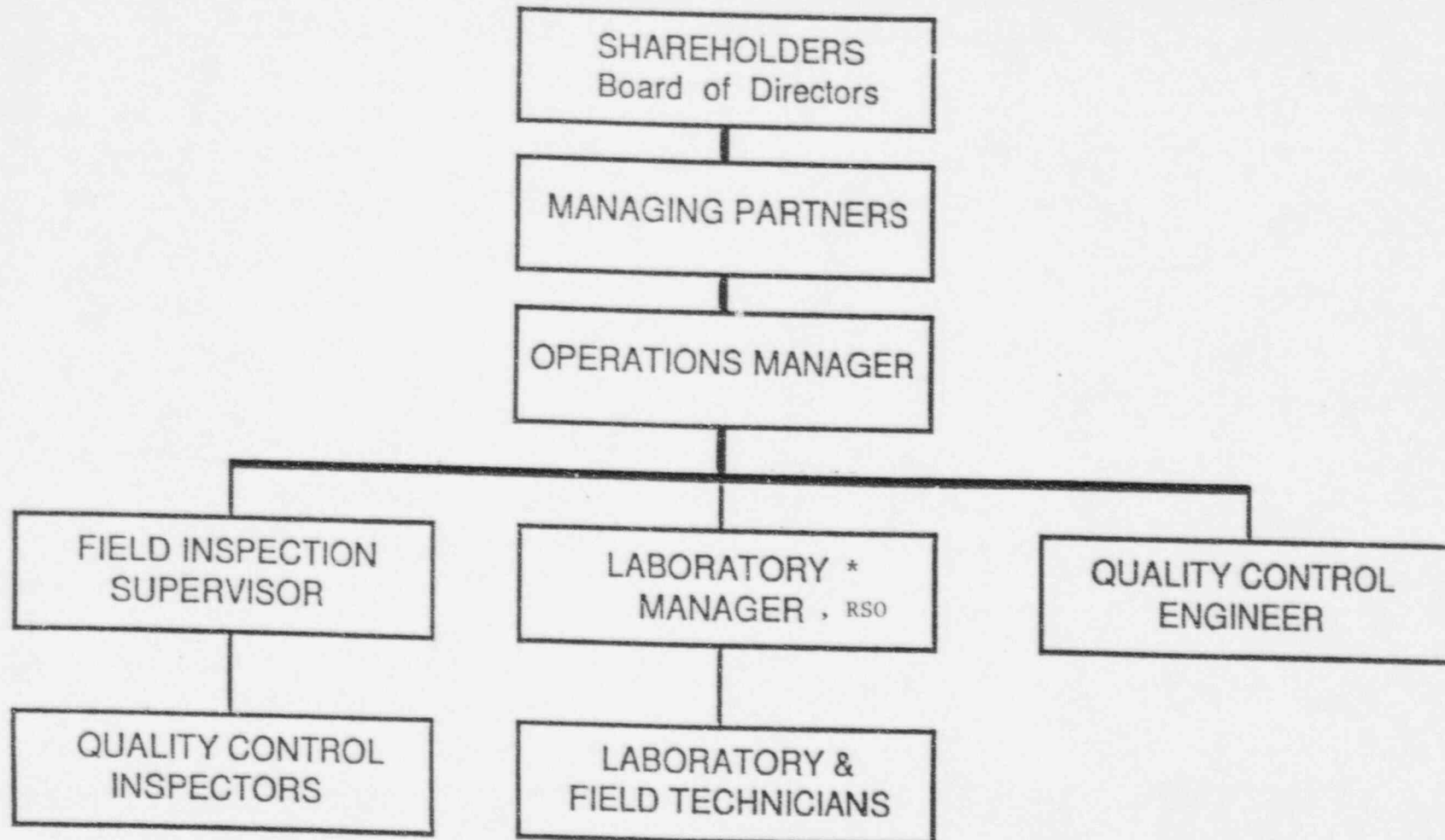
- ☐ A check covering the \$13.00 fee is enclosed, or
- ☐ Invoice us on P.O. No _____, or
- ☐ Just Invoice us.

A kit will be sent, the month before the next test is due. The required test interval stated on the license is:

- ☐ 6 months
- ☐ 1 year
- ☐ other _____

CONSTRUCTION TESTING & ENGINEERING, INC.

ORGANIZATION STRUCTURE



* Ramzi Y. Jamma
Laboratory Manager and Corporate Radiation Safety Officer