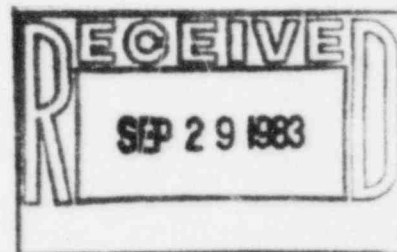




CTL/THOMPSON, INC.
CONSULTING GEOTECHNICAL AND MATERIALS ENGINEERS

September 19, 1983

U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive
Arlington, Texas 96011



Subject: Amendments to License
No. 49-19015-01

30-15226

Attention: Mr. Jack Whitten

Gentlemen:

We request an amendment to our license, No. 49-19015-01. The firm of CTL/Thompson, Inc. closed its branch office located on 30 Foster Road in Casper, Wyoming. We request that Item 1 be changed to CTL/Thompson, Inc., and Item 2 changed to 1971 West 12th Avenue, Denver, Colorado 80204. In addition, we request that Items 6, 7, 8, 9 and 12 be amended as shown on enclosed sheets. Thank you for considering our requests.

If you should have any questions, please do not hesitate to call our office.

Very truly yours,

CTL/THOMPSON, INC.

By

Paul S. Hunsader
Paul S. Hunsader
Radiation Protection Officer

PSH:ng

RECEIVED BY LFMD	
Date.	10/1/83
Log.	Oct 2 IV
By.	Brown
Orig. To.	
Action Compl.	Termination

8510300096 850913
REG4 LIC30
05-23114-01 PDR

FEE EXEMPT

60106
60191
60101



CTL/THOMPSON, INC.

CONSULTING GEOTECHNICAL AND MATERIALS ENGINEERS

Radiological Training Course for Soil and Asphalt Nuclear Gage Operation

Classroom

3 Hrs.

1. Principals of Radiation:

a. Origin of Radiation:

Atom's Structure
Radioisotopes (Unstable Nucleus)
J. Curie

b. Energy and Activity:

Electron Volt
Curie and Rem
Half Life of Energy
Radiation Types (Alpha, Beta, Gamma (x-ray), Neutron)

c. Introduction of Troxler Gage:

Construction
Power and Nuclear Source
Geiger - Mueller Tubes (Detectors)
Radiation and Soil Resistance
(Penetration and Reflection)
Parts and Assemblies

d. Calibration and Field Operation:

Calibration Base and Procedure
Calibration Chart (recalibration)
Density and Moisture Content Determination
(Direct Transmission, Backscatter, Airgap)
Relative Density and Moisture Content Determination (curve)
Location and Site Sketch
Results and Communication with Partners
Time and Miles Charge

e. General Safety:

Biological Effect of Radiation
Internal and External Radiation Hazard
Health and Radiation Dose Control
Film Bages and Other Dose-Meters
Maximum Permissible Levels of Absorbed Dose
Annual Personnel Dose Report

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f. Safety of Field Operation and Transportation

- Gage Storage in Laboratory
- Gage Storage in Field
- Transportation Safety Requirements
 - (Radioactive Sign, Lock and Place on Vehicle)
- Accident on Field or During Transportation
 - (Nuclear Source Safety Storage, Report, Witnesses)

Field Training

(Test Practice)

2 Hrs.

g. Calibration

- Site Preparation (ASTM Standard)
- Standard County (Surface and Trench Calibration)
- Test Counts (Density and Moisture)
- Count Ratio (pcf)
- Use of Calibration Tables
- Computation of Relative Density and Moisture - on Field
- Location and Site Sketch on Field
- Safety and Transportation

Written Examination

1 Hr.

6. RADIOACTIVE MATERIAL

IN ANSWER TO QUESTIONS ASKED IN 6 (A), (B) AND (C), WE WOULD
LIKE TO BE LICENSED FOR FIFTEEN (15), TROXLER MODEL 3411 COMPAC
SURFACE MOISTURE DENSITY GAUGES AND FIVE (5) TROXLER MODEL 2401
COMPAC SURFACE MOISTURE DENSITY GAUGES. RADIOACTIVE MATERIALS AND
QUANTITIES ARE LISTED BELOW FOR EACH MODEL.

CESIUM 137 SEALED SOURCE AS PER TROXLER DRAWING #A-102112
MAXIMUM OF 9 MCI \pm 10% PER SOURCE
AND

AMERICIUM 241: SEALED SOURCE AS PER TROXLER DRAWING #A-102451
BERYLLIUM MAXIMUM OF 40 MCI \pm 10% PER SOURCE

CESIUM 137/ SEALED SOURCE AS PER TROXLER DRAWING #1-100281
AMERICIUM 241: MAXIMUM OF 10/50 MCI \pm 10% PER SOURCE
BERYLLIUM

60106
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60101

CTL/THOMPSON, INC.
APPLICATION FOR AMENDMENTS TO
LICENSE NO. 49-19015-01
U.S. NUCLEAR REGULATORY COMMISSION

SHEET #2

4. INDIVIDUAL USERS:

PAUL HUNSADER
MARC CLEVELAND
MARK ROENFELDT
LARRY OLSON
RICHARD A. PHILLIPS
MARK MILLER
JOHN MECHLING
PATRICK CLEVINGER
TOM CLAYTON
ERVIN THOMPSON
SANDON THIBAUT
DELMAR FISCHER
RANDALL T. MAGEE
RANDY A. NILSON
G. DANIEL DOWNING
TERRY VON CLAUSBURG
KIRK STEADMAN
LANCE BURKE
KIMBERLY SMITH

OR PERSONS EMPLOYED AFTER LICENSE AMENDMENT HAS BEEN ACCEPTED, THAT HAVE
COMPLETED EITHER THE TROXLER COURSE, OR TRAINING COURSE OFFERED AT OUR
OFFICE. OUTLINE FOR THIS COURSE IS ENCLOSED.