



**FEWELL
GEOTECHNICAL
ENGINEERING, LTD.**

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96-1416 Waihona Place
Pearl City, Hawaii 96782-1973
(808) 455-6569
FAX (808) 456-7062
E-mail: fge@fgeltd.com

Maui Office
360 Papa Place, Suite 103
Kahului, Hawaii 96732-2464
(808) 873-0110
FAX (808) 873-0906

August 2, 2011
Via Email lizette.rolدان@nrc.gov

United States Nuclear Regulatory Commission
Region IV
612 East Lamar Boulevard, Suite 400
Arlington, Texas 76011-4125

RECEIVED

AUG 04 2011

Attention: Ms. Lizette Roldan-Otero
Ph.D., Health Physicist
Nuclear Materials Safety Branch B

DNMS

Subject: **REQUEST TO AMEND LICENSE**
Fewell Geotechnical Engineering, Ltd. (FGE)
License No. 53-23288-02

Dear Ms. Roldan-Otero:

We are herein requesting the following amendments to License No. 53-23288-02:

Item 10B

Remove storage space at 360 Papa Place in Kahului, Maui, Hawaii effective October 31, 2011. Gauges located at the Maui address have been transported to 96-1416 Waihona Place located in Pearl City on the Island of Oahu.

Attached is a copy of the recent Radioactive Material Inventory for FGE and most recent leak tests for the Maui gauges. Troxler 23329 is currently on Maui at a temporary storage site.

Item 13

Amend license to reflect leak tests on gauges (Troxler 3440) to a 12-month interval from the current 6-month interval.

Amend Radiation Safety Manual to reflect calibration of survey meters to a 12-month interval from the current 6-month interval.

Attached for your review are the following revised pages from Fewell Geotechnical Engineering, Ltd.'s Nuclear Density Gauges Radiation Safety Manual:

Part I, III, 3.3. - Calibration Requirements (Survey Instruments)
Part III, VI - Leak Testing Requirements

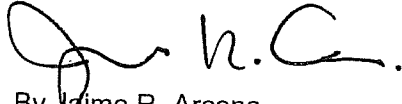
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U.S. Nuclear Regulatory Commission
Region IV
August 2, 2011
Page 2

If you have any questions regarding this request or need additional information, please do not hesitate to contact us.

Respectfully submitted,

FEWELL GEOTECHNICAL ENGINEERING, LTD.

A handwritten signature in black ink, appearing to read 'J.R. Arcena', with a stylized flourish at the end.

By Jaime R. Arcena
Radiation Safety Officer

/jra:fse

Attachments: Radioactive Material Inventory
Leak Test Certificates
FGE's Nuclear Density Gauges Radiation Safety Manual
(Pages 6 and 14)

**FEWELL GEOTECHNICAL ENGINEERING, LTD.
RADIOACTIVE MATERIAL INVENTORY**

DATE 7-18-11

MODEL NO. <u>3440</u> SERIAL NO. <u>18940</u> LOCATION <u>KAUAI</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>12-27-11</u> <u>TEMP. 100 818</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>36108</u> LOCATION <u>BIG ISLAND</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>12-6-11</u> <u>TEMP. 100 818</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>19381</u> LOCATION <u>HAWAII</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>8-17-11</u> <u>TEMP. 100 818</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>23329</u> LOCATION <u>HAWAII</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>8-17-11</u> <u>TEMP. 100 818</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>20534</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>11-4-11</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>30446</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>8-17-11</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>39292</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>11-21-11</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>37653</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>12-17-11</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>30893</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>23328</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>18947</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>21535</u> LOCATION <u>OHAW</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>

SIGNATURE C. H. C.

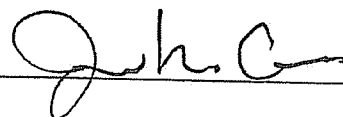
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**FEWELL GEOTECHNICAL ENGINEERING, LTD.
RADIOACTIVE MATERIAL INVENTORY**

DATE B.2.11

MODEL NO. <u>3440</u> SERIAL NO. <u>18948</u> LOCATION <u>KANU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>12.27.11</u> <u>TEMP. JOB SITE</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>36106</u> LOCATION <u>BIG ISLAND</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>12.6.11</u> <u>TEMP. JOB SITE</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>23329</u> LOCATION <u>MAUI</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>8.17.11</u> <u>TEMP. JOB SITE</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>19381</u> LOCATION <u>MAUI OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>8.17.11</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>20534</u> LOCATION <u>OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>11.21.11</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>30446</u> LOCATION <u>OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>8.17.11</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>1111 39292</u> LOCATION <u>MAUI OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>11.21.11</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>37653</u> LOCATION <u>OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>12.17.11</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>30893</u> LOCATION <u>OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>28328</u> LOCATION <u>OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>
MODEL NO. <u>3440</u> SERIAL NO. <u>18947</u> LOCATION <u>OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>	MODEL NO. <u>3440</u> SERIAL NO. <u>21535</u> LOCATION <u>OAHU</u> RADIOACTIVITY AT PRESENT <u>48 mci</u> LEAK TEST DUE DATE <u>STORAGE</u>

SIGNATURE



11 5 7 5 7 4 6



Gamma Corporation

850 West Hind Drive #214, Honolulu, HI 96821

Phone (808) 373-7009
FAX (808) 373-7017

Leak Test Certificate

Facility: Fewell Geotechnical Eng., Ltd

Number: 1314

Department:

Fac ID: fge

Address: 96-1416 Waihona Place

Pearl City

HI 96782

Wipe Date: February 07, 2011

Analysis Date: February 17, 2011

The following sources were leak tested according to the procedures described in NRC License No. 53-23207-01.

All sources used for calibration are traceable to NTIS.

Isotope	Model Number	Serial Number	Activity (MBq)	Results (Bq)
Am-241	Troxler 3440/23329	47-19211	1480	<2
Cs-137	Troxler 3440/23329	75-5344	296	<4

This report must be on file for review by the NRC or state regulatory authorities.

Performed by:

Radiation Safety Officer:

P. O. Box 240370 • Honolulu, HI 96824



Gamma Corporation

850 West Hind Drive #214, Honolulu, HI 96821

Phone (808) 373-7009
FAX (808) 373-7017

Leak Test Certificate

Facility: Fewell Geotechnical Eng., Ltd
Department:

Number: 1313

Fac ID: fge

Address: 96-1416 Waihona Place

Pearl City

HI 96782

Wipe Date: February 07, 2011

Analysis Date: February 17, 2011

The following sources were leak tested according to the procedures described in NRC License No. 53-23207-01.

All sources used for calibration are traceable to NTIS.

Isotope	Model Number	Serial Number	Activity (MBq)	Results (Bq)
Am-241	Troxler 3440/19381	47-14842	1480	<2
Cs-137	Troxler 3440/19381	50-9050	296	<4

This report must be on file for review by the NRC or state regulatory authorities.

Performed by:

Radiation Safety Officer:

P. O. Box 240370 • Honolulu, HI 96824

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FEWELL GEOTECHNICAL ENGINEERING, LTD.
NUCLEAR DENSITY GAUGES
RADIATION SAFETY MANUAL

PART I
GENERAL RESPONSIBILITIES

III. PROCEDURE FOR MAINTAINING CALIBRATED AND OPERABLE SURVEY INSTRUMENTS

3.1 GENERAL

Radiation survey meters are a part of the FGE Nuclear Density Gauge operations. It is mandatory that a calibrated and operable survey meter is maintained and used.

3.2 RESPONSIBILITIES

The RSO or Field Supervisor is responsible to return survey meters to an approved Service Calibration Center when they are due for calibration or repair.

3.2.1 The Field Supervisors are responsible to have available a calibrated and operable survey meter for timely evaluation of source integrity following an incident, if one should arise.

3.3 CALIBRATION REQUIREMENTS

Regulations require that each radiation survey meter used in nuclear density gauge operations must be calibrated at intervals not to exceed ~~six (6)~~ twelve (12) months, and after any meter repairs. Records must be maintained to show the latest calibration date.

3.4 TYPE OF SURVEY METERS

a) Victoreen Model 400, incorporating a Geiger-Mueller Tube and audible response feature. This survey meter has three (3) ranges of operations as follows:

0-10	MR/hr
0-100	MR/hr
0-1000	MR/hr

**FEWELL GEOTECHNICAL ENGINEERING, LTD.
NUCLEAR DENSITY GAUGES
RADIATION SAFETY MANUAL**

**PART III
OPERATING AND RADIATION SAFETY PROCEDURE FOR USE OF
NUCLEAR SURFACE MOISTURE DENSITY GAUGES**

VI. LEAK TESTING REQUIREMENTS

6.1 General Information

Each sealed source containing by-product material shall be tested for leakage and/or contamination at intervals not to exceed ~~six (6)~~ twelve (12) months. The test samples will be taken by authorized personnel of Fewell Geotechnical Engineering, Ltd. from the sealed source or from the surface of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate.

Qualified Fewell Geotechnical Engineering, Ltd. Personnel will conduct the actual sampling and submit the leak test to authorized organization who will conduct the analysis and report the removal contamination levels to us.

Leak Tests will be sent only to organizations licensed by the NRC or agreement States to perform leak testing services.

6.2 Procedure

- A. Read instructions in leak test kit.
- B. Complete the data form of leak test sample to identify the source being tested.
- C. Be sure the person performing the test is wearing a film badge and has an operable survey meter to monitor the area during test.
- D. Prepare the applicator that will swab area being tested per instructions in leak test kit.
- E. Perform the test in accordance with proper method listed in paragraph 6.4.

AUG - 4 2011

DATE

This is to acknowledge the receipt of your letter/application dated 8/2/11, and to inform you that the initial processing, which includes an administrative review, has been performed.

☒ There were no administrative omissions. Your application will be assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card:

The action you requested is normally processed within 90 days.

☐ A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 14 5 7 5 7 4 6
When calling to inquire about this action, please refer to this mail control number.
You may call me at 817-860-8103.

Sincerely,

Carol L. Hee
Licensing Assistant

NRC FORM 532 (R1V)
(10-2006)

BETWEEN:

Accounts Receivable/Payable
and
Regional Licensing Branches

[FOR ARPB USE]
INFORMATION FROM LTS

Program Code: 03121
Status Code: Pending Amendment
Fee Category: 3P
Exp. Date:
Fee Comments:
Decom Fin Assur Req: N

License Fee Worksheet - License Fee Transmittal

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: FEWELL GEOTECHNICAL ENGR. LTD.
Received Date: 08/04/2011
Docket Number: 3031799
Mail Control Number: 575746
License Number: 53-23288-02
Action Type: Amendment

2. FEE ATTACHED

Amount: _____

Check No.: _____

3. COMMENTS

Signed: _____

Date: _____

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

1. Fee Category and Amount: _____

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

Amendment: _____

Renewal: _____

License: _____

3. OTHER _____

Signed: _____

Date: _____