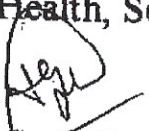


December 2, 2002

**TRANSMITTAL**

TO: Gregory Olmstead, UST Section Supervisor  
Department of Health, Solid & Hazardous Waste Branch

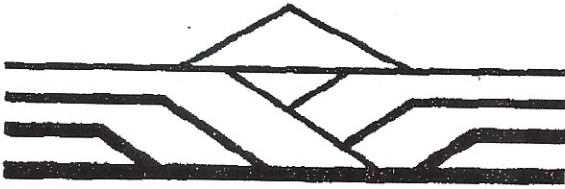
FROM: Joel Narusawa   
Environmental Compliance Officer

SUBJECT: DAGS Project No. 11-31-4117, Mauna Kea UST Removal Closure Report

Enclosed is a copy of the closure report for a UST removal at the University of Hawaii Mauna Kea 88-Inch Telescope for your use (DOH Facility ID# 9-603620). Petroleum was found in the confirmation samples at levels below the Tier 1 action levels. However, one sample of supplemental backfill material contained 2.07 mg/kg-of-benzo-a-pyrene. The DAGS consultant coordinated additional characterization of the backfill material with one of your RPMs (Mr. Shaobin Li). The additional samples contained levels of benzo-a-pyrene below the Tier 1 action levels. Therefore, the consultant recommended no additional follow-up at the site.

*del 02006*

2002



**Edward K. Noda and Associates, Inc.**  
**615 Piikoi Street, Suite 300**  
**Honolulu, Hawaii 96814-3116**  
**Voice: (808) 591-8553 ext. 210**  
**Fax: (808) 593-8551**

Memorandum (C.N. 2170-02F)

March 5, 2002

To: DOH, Solid and Hazardous Waste Branch  
Attn: Shaobin Li 586-4226 fax: 586-7509

From: Charles Brown

Subject: Underground Storage Tank Closure  
University of Hawaii 88" Telescope, Mauna Kea Summit  
Facility ID No. 9-603620, Release ID No. 020006

**BACKGROUND:**

During the removal and closure of the subject fuel storage tank, a soil sample was taken from the backfill material obtained from the area known as the Mauna Kea Quarry. This sample was collected immediately before placement of the backfill and analyzed for reporting purposes after the UST backfill was completed. Laboratory analysis of this sample indicated detectable levels of TPH as Diesel (TPH-D), Benzo(a)pyrene and Fluoranthene.

The detection of these substances indicates that a small diesel fuel spill may have occurred at the quarry site at some previous (unknown) date or contaminated material from the operation and/or construction of other observatories may have been placed at the quarry. Since there were no visual or odor indications of a spill, it is believed that any spill which may have occurred was less than the 25 gallon HEER reporting limit.

The analyte of concern in closing the UST is Benzo(a)pyrene. The backfill sample (217002-S3) indicated a Benzo(a)pyrene level of 2.07 ppm (see Table 5 attached). The Hawaii Department of Health (DOH) Tier 1 Action Level for Soil and Ground Water (ALSG) for Benzo(a)pyrene is 1.0 ppm. This level is the baseline DOH action level based on direct exposure and does not give consideration of the depth to ground water.

Additionally, there is an indication that the TPH-D, Benzo(a)pyrene and Fluoranthene contamination detected in the backfill is limited to a small portion of the material used. A post-work environmental soil sample was taken at the site. This sample (217002-BS2) consisted of a composite sample taken from five (5) areas over and downwind of the UST location. Two (2) aliquots of this sample were taken over the UST, and consisted of the backfill material. The results of this sample were "no detectable levels" of TPH-D, Benzo(a)pyrene or Fluoranthene. If the contamination in the backfill were evenly distributed, sample 217002-BS2 should have had a TPH-D level of 52 ppm, a Benzo(a)pyrene level of 0.8 ppm and a Fluoranthene level of 1.0 ppm.

All parties involved assumed that the Mauna Kea quarry material was clean. The Office of Mauna Kea Management directed that any additional backfill material needed by the contractor must be native material. The location of the borrow site was designated by Mauna Kea Observatory Support Services. Approximately 20 cubic yards of material was excavated, hauled and placed on December 3, 2001. This material extends down to a depth of 2.8 feet.

Due to frequent winter snow storms and high winds at the site, no additional site work is planned prior to June 2002. Between December 3, 2001 and June 2002, EKNA believes that significant attenuation of the limited amount of Benzo(a)pyrene in the backfill material may occur, especially considering that the site is 13,750 feet above Mean Sea Level. It is expected that the Benzo(a)pyrene level in June will be less than the Hawaii Department of Health's Action Levels for Soil and Ground Water (ALSG) Tier 1 limit and the EPA Direct Contact limit of 1.0 ppm.

#### PROPOSED ACTIONS:

EKNA proposes collecting two (2) grab samples from the 20 cubic yards of in-place backfill material from a depth of 1.5 to 2.5 feet for analysis of Benzo(a)pyrene. If the two (2) samples indicate that the June Benzo(a)pyrene level is less than 1.0 ppm, then EKNA will submit a closure report recommending no further action.

If the Benzo(a)pyrene level in the in-place backfill still exceeds the ALSG, EKNA will seek a source of clean native material to replace the in-place contaminated backfill.

#### DOH CONCURRENCE:

EKNA requests the concurrence of DOH with this proposed sampling and analysis action for site closure.

Please call me at 591-8553 x 210 if you have any questions. Thank you for your assistance.

Sincerely,



Charles G. Brown  
Environmental Physicist

Attachment: Current Sample Results

DAVID Y. IGE  
GOVERNOR OF HAWAII



APR 29 2015  
VIRGINIA PRESSLER, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File:

April 28, 2015

U0411RI

**CERTIFIED MAIL NO. 7013 1710 0000 7659 9675**  
**RETURN RECEIPT REQUESTED**

Mr. Stewart Hunter, General Manager  
Mauna Kea Observatories Support Services  
177 Makaala Street  
Hilo, Hawaii 96720

Dear Mr. Hunter:

**SUBJECT:** Application for an Underground Storage Tank Permit  
Mauna Kea Observatories Support Services  
Hale Pohaku, HI  
Permit No. P-2015-045  
Facility ID No. 9-600476

The Hawaii Department of Health (DOH), Underground Storage Tank (UST) Section has received and reviewed Mauna Kea Observatories Support Services' (MKOSS's) application for a UST permit dated January 13, 2015. The application requests that the DOH issue a permit to MKOSS to operate one (1) 12,000-gallon diesel, one (1) 2,000-gallon gasohol, and one (1) 4,000-gallon gasohol UST at MKOSS, Hale Pohaku, Hawaii. The DOH hereby approves the application. The enclosed permit (Permit No. P-2015-045) is issued under the provisions of Hawaii Revised Statutes, Chapter 342L, and Hawaii Administrative Rules, Title 11, Chapter 281, and is valid for five (5) years from the effective date.

Please review the permit carefully, and ensure that you, your employees, contractors, and consultants comply with all applicable Hawaii UST rules during the operation of the UST or tank systems at the facility.

Should you have any questions, please contact Ms. Roxanne Kwan of the Solid and Hazardous Waste Branch at (808) 586-4226.

Sincerely,

Handwritten signature of Stuart Yamada.

STUART YAMADA, P.E., CHIEF  
Environmental Management Division

Enclosures: Permit No. P-2015-045  
Receipt for filing fee

c: Hawaii Fire Prevention Bureau (w/permit only)  
Mr. Alika Toledo, Mauna Kea Observatories Support Services (w/enclosures)

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96801

DEC 20 2001

BRUCE S. ANDERSON, Ph.D., M.P.H.  
DIRECTOR OF HEALTH

In reply, please refer to:  
EMD/SHW

December 20, 2001

U12050SL

Mr. Ron Koehler  
General Manager  
Mauna Kea Observatories  
Support Services  
177 Makaala Street  
Hilo, Hawaii 96720

Dear Mr. Koehler:

SUBJECT: University of Hawaii 88□ Telescope, Summit of Mauna Kea  
Facility ID No. 9-603620/ Release ID No. 020006

This letter is in response to a telephone report dated November 19, 2001 from Mr. Charles Brown of Edward Ka Noda and Associates, regarding a release of petroleum product associated with a 4,000-gallon diesel underground storage tank (UST) located at the subject facility.

Hawaii Administrative Rules (HAR, Chapter 11-281) entitled "Underground Storage Tanks" require that UST owners and operators investigate and clean up releases of regulated substances from their UST systems. To assist you in complying with these requirements, the Department of Health has prepared a guidance document, entitled the *Technical Guidance Manual (TGM) for Underground Storage Tank Closure and Release Response* (March 2000). The guidance identifies the type and content of reports which should be submitted to our office after identification of a release. Enclosed is Section 5 of the TGM which addresses how to respond to a discovered release.

The reports which should be prepared and submitted to our office are:

1. **Confirmed Release Notification Form.** Submit this form within 7 days of identifying the release. (HAR, 11-281-72)
2. **Current Evidence of Financial Responsibility.** Submit current evidence of financial responsibility (for example, a copy of a current UST insurance policy) within 30 days of identifying the release. (HAR, 11-281-110)

Mr. Ron Koehler  
December 20, 2001  
Page 2

3. **Initial Release Response Report.** Submit this report within 90 days of identifying the release. (HAR, 11-281-80.1)
4. **Quarterly Release Response Report.** If release response has not been completed within 90 days of identifying the release, submit this report within 180 days and every 90 days thereafter until release response actions have been completed. (HAR, 11-281-80.1)

Please initiate release response activities as soon as practicable. You should note that we typically do not require prior approval of plans for response activities at UST release sites; therefore, you may be relying heavily on the recommendations and work performed by your environmental consultant. Selection of a qualified consultant is of great importance. The consultant you select should be competent and capable of performing all necessary environmental services, and should provide you with all necessary reports and documentation to demonstrate compliance with the UST release response requirements as well as any other environmental laws applicable to the response activities at your facility.

We appreciate your cooperation and prompt attention to this matter, and look forward to receiving your report(s) on your release response actions. Please use the UST Facility ID number and Release ID number provided on the first page of this letter on all future correspondence with us regarding this release. Should you have any questions regarding this letter, please contact the Underground Storage Tank Section at (808) 586-4226.

Sincerely,



SHAOBIN LI  
Environmental Health Specialist  
Underground Storage Tank Section  
Solid and Hazardous Waste Branch

Enclosure

Hale Pohaku

NOV 21 2014 f

NEIL ABERCROMBIE  
GOVERNOR OF HAWAII



LINDA ROSEN, M.D., M.P.H.  
DIRECTOR OF HEALTH

**STATE OF HAWAII**  
**DEPARTMENT OF HEALTH**  
**ENVIRONMENTAL MANAGEMENT DIVISION**  
**SOLID AND HAZARDOUS WASTE BRANCH**  
919 ALA MOANA BOULEVARD, #212  
HONOLULU, HAWAII 96814

In reply, please refer to:  
EMD/SHWB

November 20, 2014

U1111RI

**CERTIFIED MAIL NO. 7013 1710 0000 7660 1026**  
**RETURN RECEIPT REQUESTED**

Mr. Stewart Hunter  
General Manager  
Mauna Kea Observatories Support Services  
177 Maka'ala Street  
Hilo, Hawaii 96720

Dear Mr. Hunter:

**SUBJECT:** Hale Pohaku Ranger Station  
Mauna Kea Observatory Support Center, Hilo, HI  
Facility ID No. 9-600476  
Field Citation No. 3171

This is a follow-up to the November 6, 2014 inspection of the underground storage tank (UST) system located at the subject facility. The inspection was conducted by Mr. Roy Dennis Ilaga of the Department of Health (DOH), Underground Storage Tank Section. During the inspection, violations of the Hawaii Administrative Rules (HAR) UST regulations (Chapter 11-281) were noted for one (1) 12,000-gallon, one (1) 4,000-gallon, and one (1) 2,000-gallon USTs.

We are issuing a fine in the amount of \$1,800.00 and the enclosed "Field Citation/Settlement Agreement" (Field Citation). The following summarizes the violations that were found:

1. HAR 11-281-51(c) – Failure to properly service or maintain release detection equipment in the time frame specified.  
Fine: \$900.00
2. HAR 11-281-53(1) – Failure to conduct proper test of operability of line leak detector at least every 365 days.  
Fine: \$300.00

Mr. Stewart Hunter  
November 20, 2014  
Page 2


3. HAR 11-281-53(1)(A) – Failure to conduct proper line tightness testing every 365 days on pressurized piping.  
Fine: \$600.00

Total penalty issued: \$1,800.00

Please read the Field Citation carefully. If you agree with the Field Citation, you have thirty (30) calendar days from the receipt of this letter to: 1) provide a description of all the actions taken to correct the violations; 2) sign the "Agreement by Owner or Operator" on the back of the Field Citation certifying that the violations have been corrected; and 3) mail a cashier's or personal check made out to "State of Hawaii." You have the option of not complying with the terms of the Field Citation. However, the DOH may proceed with standard enforcement actions, which could result in a higher penalty.

Should you have any questions, please contact Mr. Roy Dennis Ilaga of our Underground Storage Tank Section at (808) 586-4226.

Sincerely,



STEVEN Y.K. CHANG, P.E., CHIEF  
Solid and Hazardous Waste Branch

Enclosure



**HAWAII DEPARTMENT OF HEALTH**  
 Solid and Hazardous Waste Branch  
 Underground Storage Tank Section  
 919 Ala Moana Blvd., Room 212  
 Honolulu, Hawaii 96814

FIELD CITATION No: **3171**

**FIELD CITATION ORDER**

The owner and operator are hereby ordered to correct the violations described in the Notice of Citation section of this form.

The Field Citation Order is not an adjudicatory proceeding or contested case under chapter 91, HRS but is an offer to settle an administrative case that is issued solely with reference to the Settlement Agreement on the reverse of this form. If the Settlement Agreement is not returned in correct form within 30 calendar days of the date of inspection, this Field Citation Order is hereby withdrawn, without prejudice to DOH's ability to file additional enforcement actions for the above or any other violations.

I have personally observed the violations described above, and find the owner and operator in violation of the above-referenced regulations.

*[Signature]* Date: 11/17/2014  
 (Signature of DOH Inspector)

**FIELD CITATION/SETTLEMENT AGREEMENT**

**NOTICE OF CITATION**

On 11/06/2014 at 1:00 am/pm at the Facility known as:

HALE POHAKU RANGER STATION

located at:

Mauna Kea Obs. Support Center, Hilo, HI 96720

ID number:

9-600476

in the presence of the Owner/Operator/On-site Representative:

STEWART HUNTER

an authorized employee of the Hawaii Department of Health (DOH) inspected this facility to determine compliance with underground storage tank regulations promulgated under chapter 342L, Hawaii Revised Statutes (HRS).

This inspection revealed the following violations:

\*§ 11-281-51(c), HAR Settlement: \$ 900

Violation: Failure to properly service or maintain release detection equipment in the time frame specified (3 tanks)

Date(s): 3/13/13 - 4/9/2014

\*§ 11-281-53(1), HAR Settlement: \$ 300

Violation: Failure to conduct proper test of operability of line leak detector at least every 365 days.

Date(s): 3/13/13 - 4/9/2014 (2 ALLDs)

\*§ 11-281-53(1)(A), HAR Settlement: \$ 600

Violation: Failure to conduct proper line tightness testing every 365 days on pressurized piping

Date(s): 3/13/13 - 4/9/2014 (2 pressurized piping)

\*§ 11-281-\_\_\_\_\_, HAR Settlement: \$ \_\_\_\_\_

Violation: \_\_\_\_\_

Date(s): \_\_\_\_\_

\*HAR means the Hawaii Administrative Rules

Proposed Settlement Total: \$ 1800-

**RECEIPT BY OWNER OR OPERATOR**

I hereby acknowledge receipt of this Notice of Citation/Field Citation Order

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 (Signature of Owner, Operator or On-site Representative)

sent by certified mail no. 7013 1710 0000 7660 1026  
 (Print Name)

\_\_\_\_\_  
 (Print Title)

\_\_\_\_\_  
 (Print Mailing Address of Owner or Operator)

**INSTRUCTIONS**

If you wish to avoid enforcement actions and penalties for the violations noted of up to \$25,000 per tank per day for each violation, you may participate in an expedited settlement by:

1. Correcting all of the violations noted by the inspector;
2. Providing a description of all of the actions you took to correct the violations in the blank space provided below, attaching additional pages for information that does not fit within the space provided, and attaching copies of any records or other documents evidencing the actions you took to correct the violations;
3. Signing the Settlement Agreement and Certification on the reverse side after you have corrected all of the violations;
4. Submitting a cashier's or personal check made out to "State of Hawaii" for the full payment of the "Proposed Settlement Total" noted in the Notice of Citation section, together with the original of this form to the address at the top left of this form

**WITHIN THIRTY CALENDAR DAYS OF THE INSPECTION DATE.**

**DESCRIPTION OF CORRECTIONS**

In the space below, please describe the work performed to correct the violations, attaching additional pages if you need more space. Attach copies of all documents describing the work that was performed.

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**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)  
 For delivery information visit our website at www.usps.com®

**OFFICIAL USE**

7013 1710 0000 7660 1026

Postage	\$	NOV 26 2014
Certified Fee		
Return Receipt Fee (Endorsement Required)		

Postmark Here

9-600476  
UMIRI

Mr. Stewart Hunter  
 General Manager  
 Mauna Kea Observations Support Services  
 177 Maka'ala Street  
 Hilo, HI 96720

City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Stewart Hunter  
 General Manager  
 Mauna Kea Observations Support Services  
 177 Maka'ala Street  
 Hilo, HI 96720

2. Article Number  
 (Transfer from service label)

PS Form 3811, July 2013

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  
 Signature  Agent  
 Addressee

B. Received by (Printed Name)  
 Yum: Nagayoshi

C. Date of Delivery  
 NOV 28 2014

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

DEC 1 2014  
 UMIRI

3. Service Type  
 Certified Mail®  Priority Mail Express™  
 Registered  Return Receipt for Merchandise  
 Insured Mail  Collect on Delivery

4. Restricted Delivery? (Extra Fee)  Yes

9-600476

7013 1710 0000 7660 1026

Domestic Return Receipt

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



SEP - 9 1997

LAWRENCE MIKE  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HAWAII 96801

In reply, please refer to:  
EMO/SHW

September 3, 1997

U0980RT

Mr. Ron Kohler  
Mauna Kea Support Services  
177 Makaala Street  
Hilo, Hawaii 96720

974 4215

Dear Mr. Kohler:

Subject: Hale Pohaku Mid-Level Facility  
Facility ID 9-600476


Thank you for your return of the "Verification of Compliance" form regarding the Underground Storage Tank (UST) inspection conducted by Mr. Richard Takaba on February 27, 1997 at the subject facility.

We urge you to continue your compliance with the U.S. Environmental Protection Agency's (EPA) technical standards and financial responsibility as described in Title 40 of the Code of Federal Regulations, Part 280 (40 CFR Part 280).

As a reminder, on December 22, 1998, all owners and operators of UST systems must have spill and overflow prevention equipment and corrosion protection for USTs and piping as described in 40 CFR Part 280, Subpart B. The EPA will not extend this deadline.

If you have any questions concerning the inspection or the federal UST regulations, please contact Mr. Takaba at (808) 586-4226.

Sincerely,

  
STEVEN Y.K. CHANG, P.E. CHIEF  
Solid and Hazardous Waste Branch

SYKC:RT:lno

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



MAR 25 1997

LAWRENCE MIIKE  
DIRECTOR OF HEALTH

**STATE OF HAWAII**  
DEPARTMENT OF HEALTH  
ENVIRONMENTAL MANAGEMENT DIVISION  
SOLID AND HAZARDOUS WASTE BRANCH  
919 ALA MOANA BLVD., #212  
HONOLULU, HAWAII 96814

In reply, please refer to:  
EMD/SHW

March 20, 1997

U0351RT

**WARNING LETTER**

Mr. Ron Koehler  
Mauna Kea Observatories Support Services  
177 Makaala Street  
Hilo, Hawaii 96720

Dear Mr. Koehler:

Subject: Hale Pohaku Mid-Level Facility  
Facility I.D. 9-600476

Thank you for your cooperation with Mr. Richard Takaba of our Underground Storage Tank Section during his February 27, 1997, inspection of the underground storage tank (UST) system. The inspection was conducted under the authority of Section 342L-7 of the Hawaii Revised Statutes.

During the inspection, the following violations of the U.S. Environmental Protection Agency's (EPA's) and UST regulations (40 CFR Part 280) were noted:

Inventory Control

- A monthly reconciliation of inventory control records for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline) and UST 3 (4,000 gallon regular gasoline) was not performed such that a release greater than 1.0 percent of flow-through plus 130 gallons could be detected during any given month as required by 40 CFR 280.43(a);
- Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank were not recorded for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular

Mr. Ron Koehler  
March 20, 1997  
Page 2

gasoline), and UST 3 (4,000 gallon regular gasoline) each operating day as required for inventory control by 40 CFR 280.43(a)(1);

- Regulated substance inputs into UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline) and UST 3 (4,000 gallon regular gasoline) were not reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery as required for inventory control by 40 CFR 280.43(a)(3);
- Product dispensing from UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline) and UST 3 (4,000 gallon regular gasoline) was not metered and recorded within the local standards for meter calibration as required for inventory control by 40 CFR 280.43(a)(5);
- Inventory control records for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline) and UST 3 (4,000 gallon regular gasoline) did not include monthly water monitoring to the nearest one eighth of an inch as required by 40 CFR 280.43(a)(6);
- Inventory control records for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline) were not maintained for at least one year as required by 40 CFR 280.45(b);

#### Tank Tightness Testing

- Tank tightness testing conducted for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline) was not used in conjunction with inventory control and was not conducted every year as required by 40 CFR 280.41(a)(2);
- Written performance claims pertaining to the tank tightness testing system used to detect releases from UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline), and the manner in which these claims have been justified or tested (e.g., a third-party certification), were not maintained for five years as required by 40 CFR 280.45(a);
- Tank tightness testing records for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline) were not retained until the next test was conducted as required by 40 CFR 280.45(b);

Mr. Ron Koehler  
March 20, 1997  
Page 3

#### Automatic Line Leak Detector

- Documentation was not available for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline) demonstrating that an annual test of the operation of the automatic line leak detectors was conducted as required by 40 CFR 280.45(c) and 280.44(a);
- Written documentation of all calibration, maintenance, and repair of the automatic line leak detectors for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline) was not maintained for at least one year as required by 40 CFR 280.45(c);

#### Line Tightness Testing

- Line tightness testing was not conducted for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline) every year as required by 40 CFR 280.41(b)(1)(ii);
- Written performance claims pertaining to the line tightness testing system used to detect releases from UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline), and the manner in which these claims have been justified or tested (e.g., a third-party certification), were not maintained for five years as required by 40 CFR 280.45(a);
- Line tightness testing records for UST 1 (12,000 gallon diesel), UST 2 (2,000 gallon regular gasoline), and UST 3 (4,000 gallon regular gasoline) were not maintained for at least one year as required by 40 CFR 280.45(b).

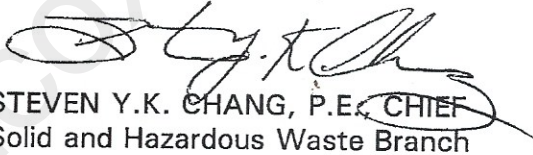
Please correct the above-mentioned violations and return the enclosed "Verification of Compliance Status" form to the Department of Health (DOH) **within forty five (45) days of the date of this letter**. Under the authority of Section 9006 of the Resource Conservation and Recovery Act, EPA has the authority to issue penalties up to \$10,000 for each tank for each day of violation. Such penalties are not being levied at this time. However, DOH retains the right to refer this facility to EPA to impose such penalties if the violations are not corrected within the time specified.

Mr. Ron Koehler  
March 20, 1997  
Page 4

During the inspection, it was noted that your UST system does not have spill prevention equipment, overfill prevention or corrosion protection for the piping. This is a reminder that all UST systems must comply with the requirements specified in 40 CFR Part 280.20 by December 22, 1998. Also, as your corrosion-resistant tanks were installed in 1983, you have 10 years to continue using inventory control with periodic tank tightness testing or until December 22, 1998, whichever is later in accordance with 40 CFR Part 280.41(a). After this time, tanks must be monitored at least every 30 days for releases using one of the methods listed in 280.43 (d) through (h) in accordance with 280.41(a).

If you have any questions concerning the violations or the steps required to bring the facility into compliance with the federal UST regulations, please contact Mr. Takaba at 586-4226.

Sincerely,



STEVEN Y.K. CHANG, P.E. CHIEF  
Solid and Hazardous Waste Branch

SYKC:RT:sc

Enclosure

c: Norwood Scott, EPA Region IX, San Francisco  
Bob McLaren, UH Institute for Astronomy, Honolulu

# Hawai. DOH UST Inspection Checklist

9-600476

**I. Owner**

Mauna Kea Obs. Support Services  
 owner name  
 177 Makala St.  
 street address  
 Hilo  
 city state zip code  
 contact person at main office phone #

**II. Location**

Hale Pahaka Mid-level facility  
 facility name & identification number  
 street address same  
 city state zip code  
 Ron Kochler  
 contact person at location phone #

	TANK 1	PIPING	TANK 2	PIPING	TANK 3	PIPING	TANK	PIPING	
III.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		tank identification number (copy page if necessary)
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		currently in use
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		temporarily out of use
IV.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		permanently out of use
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		installed before December 22, 1988
									installed on or after December 22, 1988
V.	12,000		2,000		4,000				capacity in gallons
VI.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	single wall steel
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	double wall steel
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	jacketed or clad steel
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	single wall fiberglass reinforced plastic
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	double wall fiberglass reinforced plastic
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	other: _____
VII.		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	suction piping
							<input type="checkbox"/>	<input type="checkbox"/>	pressurized piping
VIII.	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	gasoline
	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	diesel
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	gasohol
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	heating oil
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	used oil
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	other: _____
IX.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	manual tank gauging
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	tightness testing
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	inventory control
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	automatic tank gauging
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ground water monitoring
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	vapor monitoring
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	interstitial monitoring
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	statistical inventory reconciliation
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	automatic line leak detector
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	other: _____
X.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	spill prevention (if installed on or after 12/22/88)
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	overfill prevention (if installed on or after 12/22/88)
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	corrosion protection (if installed on or after 12/22/88)
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	financial responsibility

call state / call Ron → Bob McLaren Int. for Ast.

I, Richard R. Takaba (print name) certify that I have inspected the above named facility on 2/21/97 0900 (date & time)

inspector's signature: [Signature] date: 2/21/97



**Inventory Control** alt-z

UST: 1 2 3

- alt-a     monthly reconciliation performed (1% through put + 130) . . . . . 280.43(a)  
method expiration date has not yet passed:  
December 22, 1998, or  
10 years after installation, or  
10 years after upgrading existing tank,  
whichever is later . . . . . 280.41(a)(1) & (a)(2)
- alt-b
- alt-c     daily tank liquid level measurements . . . . . 280.43(a)(1)
- alt-d     1/8th inch accuracy in tank liquid level measurements . . . . . 280.43(a)(2)
- alt-e     before/after delivery tank liquid level measurements  
reconciled with volume according to delivery receipt . . . . . 280.43(a)(3)
- alt-f     drop tube present in tank fill pipe . . . . . 280.43(a)(4)
- alt-g     dispenser meter calibrated . . . . . 280.43(a)(5)
- alt-h     monthly check for water . . . . . 280.43(a)(6)
- alt-i     inventory records on file for one year . . . . . 280.45(b)

**Statistical Inventory Reconciliation (SIR)** alt-z

UST: \_\_\_\_\_

NEED MONTHLY CHECK FOR WATER

- alt-j     inventory conducted according to provider's specifications . . . . . 280.40(a)(2)
- alt-k     statistical analysis is performed every month . . . . . 280.41(a)
- alt-m     certification of performance on file . . . . . 280.45(a) & 280.40(a)(3)
- alt-i     statistical analysis results on file for one year . . . . . 280.45(b)

- ✓ = in compliance
- = did not verify
- X = not in compliance
- n = not applicable

facility identification number: 9-600476  
 inspector's initials: MT  
 date: 2/27/99

**Tank Tightness Testing** alt-z

UST: 1 2 3

alt-s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	system is (if appl.):	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	installed,	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	calibrated,	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	operated, and	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	maintained according to manufacturer's instructions. . . . .	280.40(a)(2)
					performance requirements:	
alt-t	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	method was installed before December 22, 1990 or	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	able to detect a .1 gph leak with a .95 PD and .05 PF . . . . .	280.40(a)(3)
					tank tightness test conducted:	
alt-u	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. in conjunction with manual tank gauging (tanks	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	with 2,000-gallon nominal capacity or less only) or	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	in conjunction with inventory control	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	b. every five years (corrosion protected tanks	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	with spill and overfill protection only) or	
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	every year . . . . .	280.41(a)(1) & (a)(2)
alt-m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	certification of performance on file for five years .	280.45(a) & 280.40(a)(3)
alt-i	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	results of last test on file . . . . .	280.45(b)
alt-v	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	if test device permanently installed, records of calibration,	
					maintenance, and repair for last year . . . . .	280.45(c)

*no tightness test done  
at this time*

- ✓ = in compliance
- = did not verify
- x = not in compliance
- n = not applicable

facility identification number: 9-600476  
 inspector's initials: nt  
 date: 2/22/97

**Piping (pressurized)**

*yes, visible*

**I. automatic line leak detector alt-z**

UST: 1 2 3

alt-s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	detector is:	installed,
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		calibrated,
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		operated, and
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		maintained according to manufacturer's instructions. . . . . 280.40(a)(2)
					performance requirements:	
alt-t	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	method was installed before September, 1991 or	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	able to detect a 3 gph leak at 10 psi in one hour with	
					a .95 PD and .05 PF . . . . . 280.40(a)(3)	
ctr-v	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	detector is installed . . . . . 280.41(b)(1)(i)	
alt-m	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	certification of performance on file for five years . 280.45(a) & 280.40(a)(3)	
alt-j	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	last test of operation of detector on file . . . . . 280.45(b) & 280.44(a)	
alt-v	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	calibration, maintenance, and repair records on file for one year . 280.45(c)	

**II. tightness test or applicable monthly method alt-z**

UST: 1 2 3

*no tightness tests on record.*

alt-s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	tightness test is (if appl.):	installed,
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		calibrated,
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		operated, and
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		maintained according to manufacturer's instructions. . . . . 280.40(a)(2)
					performance requirements:	
alt-t	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	method was installed before December 22, 1990 or	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	able to detect a .1 gph leak at 1 1/2 times operating	
					pressure with .95 PD and .05 PF . . . . . 280.40(a)(3)	
ctr-s	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	tightness test conducted every year . . . . . 280.41(b)(1)(ii)	
alt-m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	certification of performance on file for five years . 280.45(a) & 280.40(a)(3)	
alt-i	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	results of last test on file . . . . . 280.45(b)	
alt-v	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	calibration, maintenance, and repair records on file for one year	
					if permanently installed . . . . . 280.45(c)	

OR

ctr-t     monthly method (specify): \_\_\_\_\_ . . . . . 280.44(c)

✓ = in compliance	facility identification number: <u>9-600476</u>
□ = did not verify	inspector's initials: <u>nt</u>
x = not in compliance	date: <u>2/21/97</u>
n = not applicable	

UST - GPS Data Collection

Facility ID 9-600476  
Facility Name Hale Pohaku Mid-level Facility  
Street Mauna Kea Observatory Access Rd.  
City Hilo ZIP \_\_\_\_\_

Tank #	Date	Time	File Name	Bearing	Initials
2	2/27/97	1049	F022720A	unknown	RA

Notes:

alignment of tanks  
unknown.  
-RA

# HAWAII DEPARTMENT OF HEALTH UST OPERATIONAL INSPECTION CHECKLIST

9 - 600476

**Owner of tank(s)**

owner's name State of Hawaii U.H. Munaka Support Services  
 mailing address 117 Mahalo St  
 city Hilo state HI zip code 46710  
 phone# 8089744205 fax# 8089744215  
 contact person's name Ron Koehler  
 phone# \_\_\_\_\_ fax# \_\_\_\_\_

**Location of tank(s)**

facility name Hale Palaha Ranger Station Munaka Support Services  
 location address (P.O. Box not acceptable) Munaka Access Road Hale Palaha Ranger St.  
 city Hilo state HI zip code 96270  
 contact person at location Ron Koehler phone # 8089744205

**Operator of tank(s)**

operator's name \_\_\_\_\_  
 mailing address \_\_\_\_\_  
 city \_\_\_\_\_ state \_\_\_\_\_ zip code \_\_\_\_\_  
 phone# \_\_\_\_\_ fax# \_\_\_\_\_

**Comments:**

TANK 1	TANK 2	TANK 3	TANK 4
<u>16000</u>	<u>4000</u>	<u>2000</u>	_____
<u>8/83</u>	<u>8/83</u>	<u>8/83</u>	_____
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
_____	_____	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> _____	<input checked="" type="checkbox"/> _____	<input checked="" type="checkbox"/> _____	<input type="checkbox"/> _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**TANK IDENTIFICATION NUMBER**  
(use additional pages if necessary)

**STATUS OF TANK(S)**

capacity in gallons \_\_\_\_\_  
 date of installation (permit # \_\_\_\_\_)

currently in-use \_\_\_\_\_  
 if temporarily closed, give date \_\_\_\_\_

if permanently closed, give date \_\_\_\_\_

tank connected to an emergency generator \_\_\_\_\_

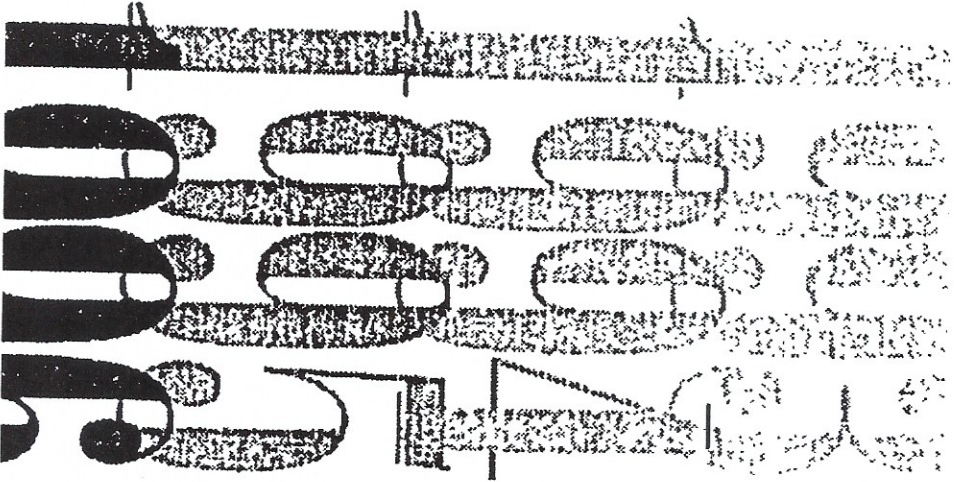
**SUBSTANCE CURRENTLY OR LAST STORED**

gasoline, specify grade \_\_\_\_\_  
 diesel \_\_\_\_\_  
 used oil \_\_\_\_\_  
 heating oil \_\_\_\_\_  
 gasohol \_\_\_\_\_  
 other: \_\_\_\_\_

Inspector: STEVEN BORUCK Inspector's signature: Steven Boruck date: 4/30/04 time: 8:30

Received by: RON KOEHLER Received by signature: RAKoebler date: 4/30/04

This document represents the inspector's field notes and is provided as a courtesy. It does not limit the inspector's ability to cite the facility at a later date for additional violations.



## **tanks installed before December 22, 1988.**

Upgrading simply means that your underground storage tank system (UST) must have **corrosion protection** and **spill and overflow prevention devices**.

Although the federal regulatory deadline for compliance is 1998, you should make these improvements as soon as possible to help avoid the cost of cleaning up leaks from substandard USTs.

### **For More Information**

You can call EPA's toll-free Hotline at 800-424-9346 to ask questions about what it takes to upgrade a substandard UST.