



Department of Health
HEER Office, 1582
Kamehameha Avenue,
Hilo, Hawai'i 96720-4623

FACT SHEET

Proposed Soil Cleanup Action at a portion of the former Canec Production Facility Site, Hilo, Hawai'i

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Introduction

The State of Hawai'i Department of Health (HDOH) is publishing this fact sheet to provide information and to solicit comments from persons interested in the proposed arsenic cleanup project by a prospective purchaser at a property owned by the David DeLuz, Sr. Revocable Trust and located in Hilo, Hawai'i County (Figure 1). A proposed commercial use is planned by the prospective purchaser, pending a final land sale agreement. The HDOH Hazard Evaluation and Emergency Response Office (HEER Office) is providing oversight, and the investigation and public participation requirements are being conducted pursuant with Hawai'i Administrative Rules Chapter 11-451. This fact sheet outlines the proposed cleanup options and the remedy proposed to address soil contamination at the site.

A Draft Removal Action Report presents details on alternative remedies to address elevated soil arsenic contamination at the former Canec Production Facility Site. Each alternative is described and evaluated in terms of effectiveness, implementability and cost. A recommendation is made on the preferred remedy to address the soil contamination.



Figure 1. Site Location in Hilo

Site Description and Property Information

The subject property (site) consists of approximately 6.2 undeveloped acres of land northwest of the intersection of Kekuanaoa and Mililani Streets in Hilo, Hawaii. The parcels are the last remnants from several sub-divisions of a larger holding that was the site of a *canec* production facility from the 1930s until 1963. *Canec*, a wall- and ceiling-board panel manufactured from sugar cane bagasse was used extensively as a building material in Hawaii until the 1970s. In manufacturing, *canec* was treated with inorganic arsenic to provide resistance to pest infestations, primarily termites. Parcel 17 has remained vacant and undeveloped since 1966, when the *canec* plant was demolished. A tennis court and small check-in building for the Waiakea Racket Club was constructed on Parcel 19, and utilized between 1976 and the mid-1980s.

Site investigations have been conducted by HDOH and environmental consultants for the property owner to identify the contaminants of concern and areas of soil contamination. Arsenic is the principle chemical of concern and soil environmental hazard.

HDOH manages soil arsenic hazards based on a measure of bioaccessible arsenic, which is the fraction of total arsenic that is expected to be available for uptake by way of incidental soil ingestion of arsenic-contaminated soil. HDOH has developed four soil categories (A-D) based on bioaccessible arsenic levels. Category A soils have naturally-occurring background levels of arsenic. Soils with bioaccessible arsenic below 23 mg/kg (Category B soils) are considered minimally impacted, and are "within acceptable health risks for long-term exposure". Category C soils (moderately impacted) have bioaccessible arsenic levels from 23 to 95 mg/kg, and sites with these soils need further evaluation or controls for unrestricted (i.e. residential) land use. Sites with Category C

soils may be suitable for commercial or industrial land uses only. Category D soils with bioaccessible arsenic above 95 mg/kg (heavily impacted) typically require remedial action irrespective of future land use.

Site investigation work indicates that there are approximately 2,625 cubic yards (cy) of Category C and 2155 cubic yards (cy) of Category D arsenic contaminated soils at the site.

Removal Action Objectives

The primary focus of the removal action is to address elevated arsenic in the soils at the site to provide protection of human and ecological health by preventing direct exposures to impacted soils. The removal action objectives are as follows:

1. Remove arsenic-contaminated soils from the site, or isolate these soils under vegetation/soil cover or in on-site containment cells;
2. Protect workers from direct exposure to arsenic during removal actions or construction;
3. Prevent migration of arsenic-contaminated soil to off-site adjacent land locations;
4. Prevent migration of arsenic-contaminated soils to surface waters;
5. Protect business employees and patrons and the general public from arsenic exposure over the long-term.

Proposed Remedy

A number of removal action alternatives were considered to address the soil contamination on site. The removal action alternatives selected for final consideration included:

1. No Action (included for comparative baseline)
2. Excavation and Offsite Landfill Disposal of Arsenic Category D Soils and Onsite Containment Cells for Arsenic Category C Soils; Full-scale Fill/Grading Site Development in Near-term
3. Onsite Containment Cell for Arsenic Category C and D Soils; Full-scale Fill/Grading Site Development in Near-term
4. Excavation and Offsite Landfill Disposal of Arsenic Category D Soils; *In situ* Management of C Soils in Near-term; Phased Site Development and Further Category C Soil Containment (Future)

Each alternative was considered in light of the Removal Action Objectives for the site as well as effectiveness, implementability, and cost. The proposed removal action alternative recommended is alternative 4: Excavation and Offsite Landfill Disposal of Arsenic Category D soils; *In situ* Management of Arsenic Category C Soils in Near-term; Phased Site Development and Further Category C Soil Containment (Future). This option was judged effective to ensure that any risks to human health or the environment would be avoided and does not require site development of any scale in the near-term. This alternative consists of excavation of all Category D heavily impacted arsenic soils (exceeding 95 mg/kg bioaccessible arsenic and disposal in an approved landfill (West Hawai'i). Remaining Category C soils will be managed under protective vegetative cover and institutional controls. Future management of Category C moderately impacted soils that will remain on-site will be the subject of additional soil containment actions under later regulatory engagement with Hawaii DOH.

Next Steps and Community Involvement

HDOH encourages members of the public to review and comment on the DRAFT Removal Action Report (DRAFT RAR) and proposed remedy for this project during the comment period of November 29, 2017 through January 5, 2018. Written comments should be e-mailed (by January 5, 2018) to John Peard at randall.peard@doh.hawaii.gov or mailed to the following address:

John Peard, Project Manager
Hawai'i Department of Health, HEER Office
1582 Kamehameha Ave.
Hilo, Hawai'i 96720-4623

A public meeting will be held during the public comment period to provide an overview of investigations at the site, answer questions, and discuss the Draft RAR including the remediation options considered and proposed. Comments from the public will be accepted at this meeting (and throughout the public comment period). This meeting will be held at the following location and time:

Location: Department of Health, Environmental Health Building (next to Coqui's Hideaway Restaurant/Bar)

Address: 1582 Kamehameha Avenue, Hilo, HI 96720

Date: December 14, 2017 (Thursday evening)

Time: 6:00 – 7:30 PM

After the public comment period is over (after Jan. 5, 2017), HDOH will review and consider all comments received as well as any additional HDOH staff or management input before selecting the final cleanup remedy for the site.

Information Repository

Relevant portions of the Administrative Record for this site are available for review at the Hilo Public Library (see Reference Desk) and the HDOH Environmental Health Building in Hilo at 1582 Kamehameha Avenue until Jan. 5, 2018. This includes the Draft Removal Action Report (with the proposed remedy) and other site investigation documents. The complete administrative record for the former Canec Manufacturing Plant site is available for review upon request to HDOH.

Copies of this site Fact Sheet and the Draft Removal Action Report are also available to view or download from the HDOH HEER Office website at: <http://hawaii.gov/doh/heer> See the “What’s New” section on the homepage and look for announcement and links for the former Canec Manufacturing Site.

For any inquiries regarding the proposed cleanup project, contact:

John Peard, HDOH Project Manager, at
(808)933-9921, or
randall.peard@doh.hawaii.gov