



LAND USE CONTROL IMPLEMENTATION PLAN

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION KENNEDY SPACE CENTER BREVARD COUNTY, FLORIDA

FACILITY: Shuttle Flight Operations Contract Generator Maintenance Facility (SFOC) Solid Waste Management Unit 081

CONTAMINANTS: Antimony in groundwater

CONTROL: Prevent contact with groundwater

PURPOSE OF LAND USE CONTROL IMPLEMENTATION PLAN

This Land Use Control Implementation Plan (LUCIP) has been prepared to inform current and potential future users of the Kennedy Space Center (KSC) Shuttle Flight Operations Contract Generator Maintenance Facility (SFOC; SWMU 081; “the Site”) of institutional controls that have been implemented at the Site¹. Although there are no current unacceptable risks to human health or the environment associated with the SFOC, an institutional land use control (LUC) is necessary to prevent human health exposure to antimony-affected groundwater at the Site. Controls will include periodic inspection, condition certification, and agency notification.

WHY LAND USE CONTROLS ARE NEEDED

One constituent of concern (COC; antimony) exceeded applicable Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels (GCTLs) screening criteria.

SITE DESCRIPTION

The SFOC was constructed in 1988 to be utilized as the main generator maintenance shop and storage facility for the SFOC at KSC. The facility was designed to accommodate maintenance and storage operations for portable generators and portable aboveground diesel fuel storage tanks. The SFOC is currently operated by United Space Alliance (USA). The facility has formerly been referred as the Shuttle Processing Contract (SPC) Generator Shop, the Launch Support Operations Contract (LSOC) Generator Shop and the Lockheed Generator Shop.

SITE LOCATION

SFOC (K6-1844) is located east of Contractor’s Road and northeast of Contractors Support Building (K6-1869) south of the Vehicle Assembly Building (VAB) Area in Section 18, Township 22S and Range 37E, Orsino Topographic Quadrangle (USGS 1976) ([Figure 1](#)).

¹ This LUCIP summarizes institutional controls regarding the NASA SFOC. For detailed information on the Site, consult the SFOC administrative file, which is available for review by contacting the KSC Environmental Assurance Branch at telephone number (321) 867-8402.

The areas covered and the coordinates of the corners of the LUCIP are shown on [Figure 2](#). The coordinates are in the State Plane Coordinate System North American Datum (NAD) 1983, Florida East, meters.

SITE CONTAMINATION AND CONTROL

Groundwater at the site contains antimony concentrations above the FDEP GCTL. The current and projected future land use of the SFOC is industrial in nature. LUCs are therefore required to prohibit the use of groundwater at the site.

DECISION DOCUMENT

The KSC Remediation team (KSCRT) determined that institutional controls should be implemented at SFOC. The institutional controls are temporary while long term monitoring documents the reduction of antimony through natural processes.

IMPLEMENTATION

Institutional controls will be implemented by the KSC Environmental Assurance Branch in accordance with their RCRA permit and a Land Use Control Assurance Plan included in the Memorandum of Agreement (MOA)² between NASA and the FDEP, effective February 23, 2001. Upon approval of this LUCIP, it will be incorporated into the permit by reference. Property transfer (if conducted

in the future) will be conducted in accordance with Section X of the MOA.

KSC's Environmental Assurance Branch will provide KSC's Master Planning Office with survey coordinates of the LUCs. Restrictions will specify limitations on development and reuse for the area for as long as LUCs are necessary to protect human health and the environment.

MONITORING

Quarterly inspections to monitor that the LUCs specified herein are in place and operating will be conducted by KSC's Environmental Assurance Branch. The inspections will verify that no groundwater use is occurring.

REPORTING

KSC's Environmental Assurance Branch will submit annual reports to FDEP certifying retention of the LUCs.

ENFORCEMENT

KSC's Environmental Assurance Branch will be responsible for stopping any activities that are not compliant with this LUCIP.

MAINTENANCE

The LUCIP shall remain in place until the scenarios managed by the LUCIP are no longer a concern.

² By separate MOA effective February 23, 2001, with the FDEP and KSC, on behalf of NASA, agreed to implement Center-wide, certain periodic site inspections, condition certification, and agency notification procedures designed to ensure the maintenance by Center personnel of any site-specific LUCs deemed necessary for future protection of human health and the environment. A fundamental premise underlying execution of that agreement was that through the Center's substantial good faith compliance with the procedures called for herein, reasonable assurances would be provided to the FDEP as to the permanency of those remedies which included the use of specific LUCs.

Although the terms and conditions of the MOA are not specifically incorporated or made enforceable herein by reference, it is understood and agreed by NASA KSC and FDEP that the contemplated permanence of the remedy reflected herein shall be dependent upon the Center's substantial good faith compliance with the specific LUC maintenance commitments reflected herein. Should such compliance not occur or should the MOA be terminated, it is understood that the protectiveness of the remedy concurred in may be reconsidered and that additional



Legend

- SWMU Boundary
- Structure

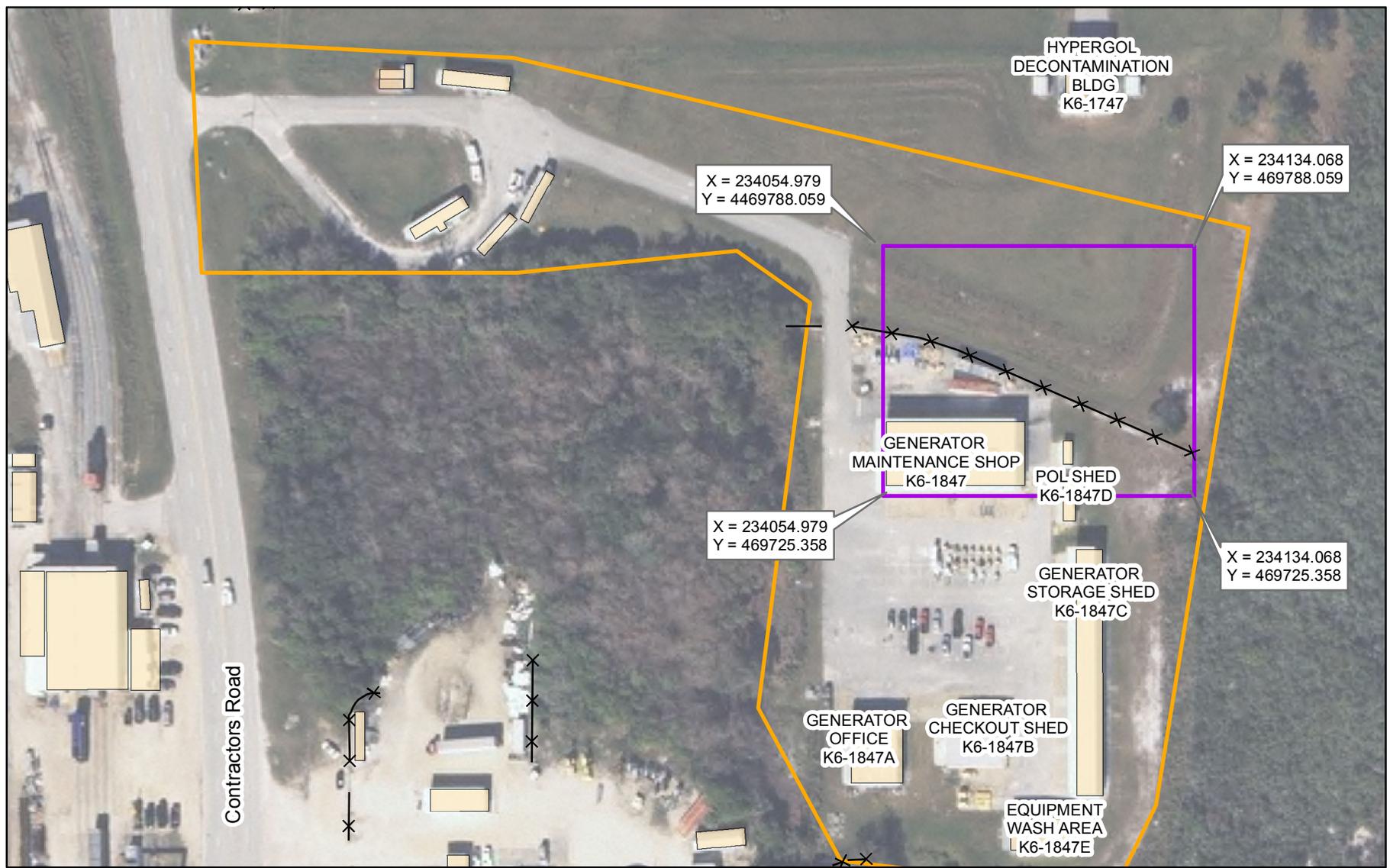
Notes:
 KSC - Kennedy Space Center
 LUCIP - Land Use Control Implementation Plan
 NASA - National Aeronautics and Space Administration
 SFOC - Shuttle Flight Operations Contract Generator Maintenance Facility
 VAB - Vehicle Assembly Building

**Site Location Map
 Land Use Control Implementation Plan**

SFOC Generator Maintenance Facility
 NASA Kennedy Space Center, Florida

Project Number: TL014021.0010

Figure 1



Legend

- X— Fence
- Orange outline SWMU Boundary
- Purple outline Groundwater LUC Area
- Yellow rectangle Structure

Notes:

Coordinates are in State Plane Coordinate System, NAD 1983, meters, Florida East
 LUC - Land Use Control
 LUCIP - Land Use Control Implementation Plan
 NASA - National Aeronautics and Space Administration
 SFOC - Shuttle Flight Operations Contract Generator Maintenance Facility
 SWMU - Solid Waste Management Unit



**Site Plan
 Land Use Control Implementation Plan**

SFOC Generator Maintenance Facility
 NASA Kennedy Space Center, Florida

Project Number: TL014021.0000

Figure 2