



LAND USE CONTROL IMPLEMENTATION PLAN

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

FACILITY: Processing Control Center Area
Solid Waste Management Unit 101

CONTAMINANTS: Vinyl Chloride in Groundwater

CONTROL: Prohibit Groundwater Use

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 Processing Control Center Area (PCCA) 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 PCCA, an institutional land use control (LUC) is necessary to prohibit groundwater use at the site. Controls will include periodic inspection, condition certification, and agency notification.

WHY LAND USE CONTROLS ARE NEEDED

A human health risk assessment was completed as part of a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI). One chemical of concern (vinyl chloride) exceeded the Florida Department of Environmental Protection (FDEP) cleanup target level and was

identified as a potential human health risk during the RFI.

SITE DESCRIPTION

The PCCA site contains eight structures: two 1-million gallon water storage tanks (K6-0946 and K6-0995); a 250,000-gallon elevated water storage tank (K6-0994); two storage buildings (K6-0996 and K6-1046); a maintenance shop (K6-0996A); the PCC Facility (K6-1094), and an undesignated storage shed. Formerly a cooling tower water treatment facility (K6-0945); the Vehicle Assembly Building (VAB) Support Facility (K6-1045), and five trailers (K6-1043A through K6-1043D and K6-1044) were located at the Site. The facility is used as an Intermediate Level Maintenance Facility for Launch Processing Systems (LPS), Engineering Development Laboratories for modifications and testing of consoles, and Shuttle Processing Data Management Systems support associated with the Space Shuttle Program. Information found in the KSC archives indicates that the facility was designed to support orbiter testing, launch team training, and LPS maintenance.

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

SITE LOCATION

The PCCA is located in the Vehicle Assembly Building (VAB) Area of KSC, southwest of the Crawlerway on the intersection of Utility Road and VAB Road. The facility is bordered by the Orbiter Processing Facility (K6-0894) to the north, Utility Road to the east, VAB Road to the south, and railroad tracks to the west (Figure 1). The groundwater use control area covered by the LUCIP is shown on Figure 2. Coordinates of the corners of the LUC are provided on Figure 2 in the US State Plane Coordinate System NAD 1983, meters, Florida East.

SITE CONTAMINATION AND CONTROL

The concentration of vinyl chloride present in groundwater is above the FDEP's Groundwater Cleanup Target Level (GCTL) but is less than the FDEP Natural Attenuation Default Concentration. Since groundwater exceeds the FDEP GCTL, LUCs prohibiting the use of groundwater are required until the cleanup level is achieved. The current and projected land use of the PCCA does not include the use of site groundwater; therefore, there is no current or projected exposure risk.

DECISION DOCUMENT

A Statement of Basis (SB) establishes institutional controls as a component of the remedy for the site. The SB for the site, KSC document number KSC-TA-11461, is

available for review by contacting the KSC Environmental Assurance Branch at telephone number (321) 867-8402.

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 institutional controls 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 at the site.

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 measures may need to be taken to adequately ensure necessary future protection of human health and the environment.

REPORTING

KSC’s Environmental Assurance Branch will submit annual reports to FDEP certifying retention of the implemented 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 concerns managed by the LUCIP are mitigated, or until there is a discovery, based upon analytical evidence, that scenarios managed by the LUCIP are no longer a concern. Any change in LUC management must be approved by the FDEP and implemented by modification of NASA’s operating permit.

Notes:
 KSC - Kennedy Space Center
 LUC - Land Use Control
 LUCIP - LUC Implementation Plan
 NASA - National Aeronautics and Space Administration
 PCCA - Processing Control Center Area
 SWMU - Solid Waste Management Unit
 VAB - Vehicle Assembly Building

KSC-TA-11462
 PCCA LUCIP
 Revision: 0
 March 2011



Legend

- VAB LUC Area (to the north and east)
- PCCA LUC Area



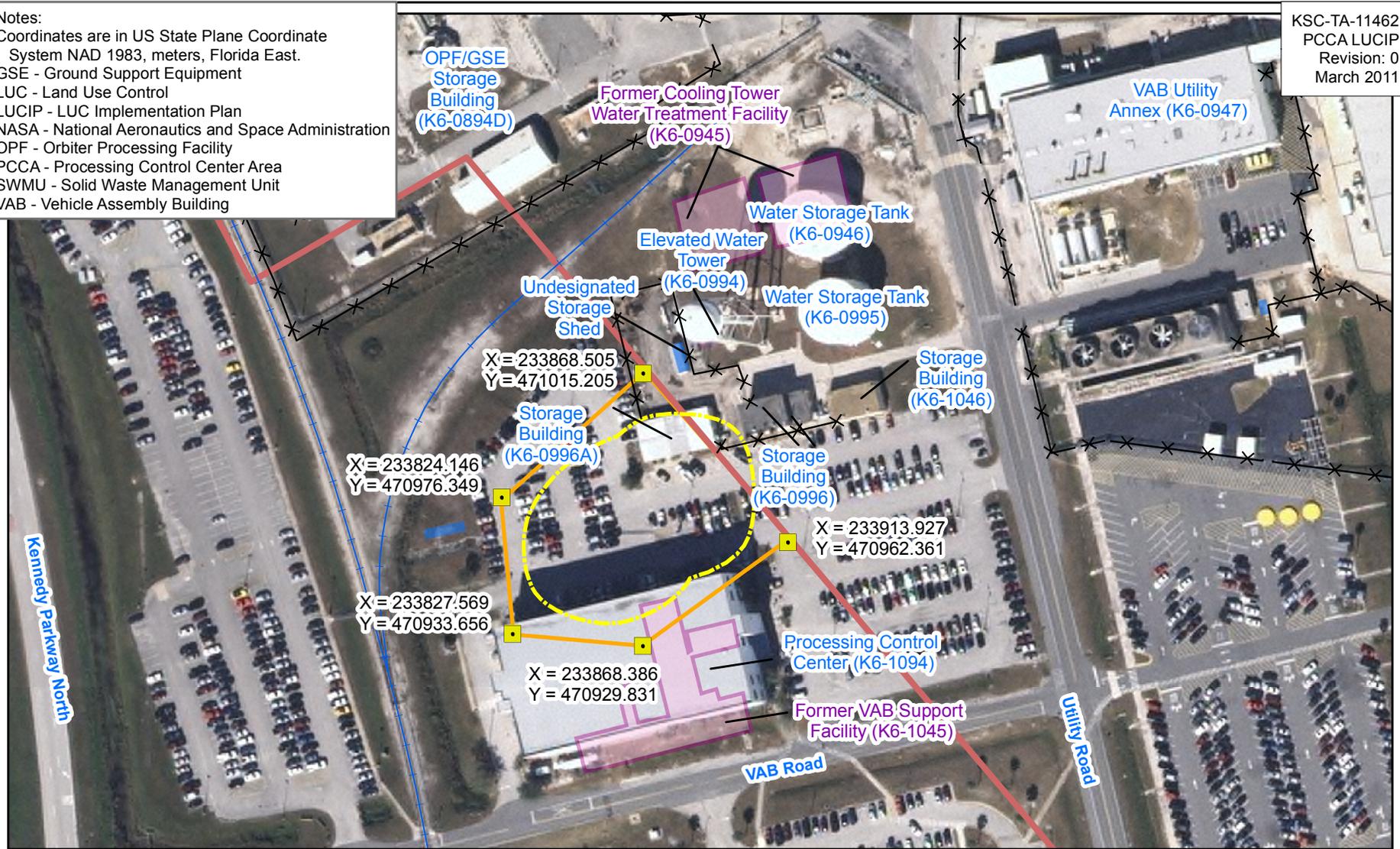
**Site Location Map - SWMU 101
 Land Use Control Implementation Plan**

Processing Control Center Area
 NASA Kennedy Space Center, Florida

Notes:

Coordinates are in US State Plane Coordinate System NAD 1983, meters, Florida East.
 GSE - Ground Support Equipment
 LUC - Land Use Control
 LUCIP - LUC Implementation Plan
 NASA - National Aeronautics and Space Administration
 OPF - Orbiter Processing Facility
 PCCA - Processing Control Center Area
 SWMU - Solid Waste Management Unit
 VAB - Vehicle Assembly Building

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Legend

- Former Facility
- VAB LUC Area (to the north and east)
- Approximate Area of Vinyl Chloride-Affected Groundwater
- PCCA LUC Area
- Fence
- Railroad
- LUCIP Coordinate Location



Area Under Institutional Controls - SWMU 101
 Land Use Control Implementation Plan

Processing Control Center Area
 NASA Kennedy Space Center, Florida

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Figure 2