



LAND USE CONTROL IMPLEMENTATION PLAN

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

FACILITY: Space Station Processing Facility
Solid Waste Management Unit 098

CONTAMINANTS: Ammonia 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 Space Station Processing Facility (SSPF) 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 SSPF, 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 (ammonia) exceeded the Florida Department of Environmental Protection (FDEP) cleanup target levels and was identified as a potential human health risk during the RFI.

SITE DESCRIPTION

The SSPF site contains the SSPF (M7-0360) Building, two Operations Support Buildings (M7-0361 and M7-0362), one Ammonia Vapor Containment Building (M7-0361A), and a Hazardous Waste Storage Area (M7-0360A). The SSPF has two loading docks and the southern and western sides are enclosed by a security fence. The SSPF serves as the primary facility at KSC for prelaunch/postlanding processing of space station elements, payloads and experiments.

SITE LOCATION

The SSPF is located in the Industrial Area of KSC, southeast of the intersection of NASA Parkway and E Avenue SE. The facility is bordered by 1st Street SE to the north, 2nd Street SE and the Engineering Development Laboratory (EDL) Facility (M7-0409) to the south, a parking area and H Avenue SE to the east and E Avenue SE and the Operations and Checkout (O&C) Building (M7-0355) 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

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

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 ammonia 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 KSC site-specific ammonia background screening value, LUCs prohibiting the use of groundwater are required until the cleanup level is achieved. The current and project land use of the SSPF 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-11205, 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.

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.

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.

MAINTENANCE

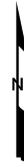
The LUCIP shall remain in place until the concerns managed by the LUCIP are mitigated, or until there is a discovery, based upon analytical evidence, that scenarios managed by the LUCIP are no longer a concern. Any change in LUC management must be approved by the FDEP and implemented by modification of NASA's operating permit.



Legend

 SSPF SWMU Boundary

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

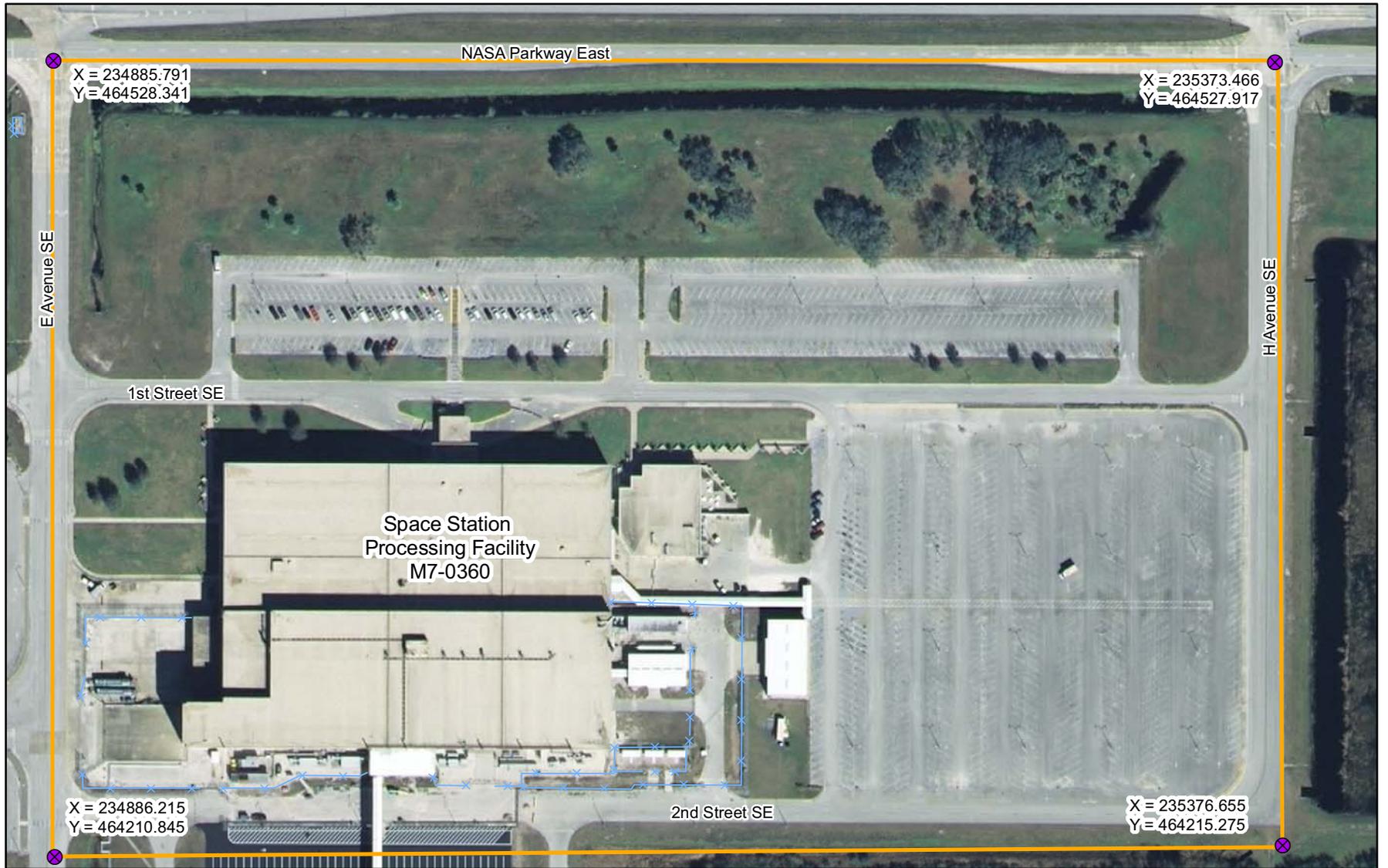


Site Location Map - SWMU 098
Land Use Control Implementation Plan

Space Station Processing Facility
 NASA Kennedy Space Center, Florida

Project Number: TL011302.0027

Figure 1

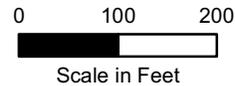


Legend

- SSPF SWMU Boundary
- × Fence

Notes:

Coordinates are shown in Florida State Plane East, meters
 LUCIP - Land Use Control Implementation Plan
 NASA - National Aeronautics and Space Administration
 SSPF - Space Station Processing Facility
 SWMU - Solid Waste Management Unit



Area Under Institutional Controls - SWMU 098
Land Use Control Implementation Plan

Space Station Processing Facility
 NASA Kennedy Space Center, Florida

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Figure 2