



National Aeronautics and
Space Administration

John C. Stennis Space Center
Stennis Space Center, MS 39529-6000

SSTD-8070-0119-MISC Rev. B-1
FEBRUARY 2016

COMPLIANCE IS MANDATORY

JOHN C. STENNIS SPACE CENTER DIG PERMIT STANDARD (FORM SSC-618)

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12-8-14
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Document History Log

Status/ Change/ Revision	Change Date	Originator /Phone	Description
Basic	1/16/07	S. Fandal 8-2961	Initial Release – supersedes SSC STD 99-015 Rev. B, with the following changes: New document number and format per SPR 1400.1. Complete edit, reorganization and rewrite, including additions, deletions and modifications to process requirements, procedures and responsibilities for FOSC Facilities Systems Engineer, Project Lead, Construction Manager, and Dig Site Supervisor; utility shut-off; safety zone; notifications of NASA/FOSC/TOC Safety and Communications; submittal of redlines and update of drawings; processing of Dig Permit Form SSC-618 (i.e., extension of expiration date and submittal of the signed/dated permit; handling of original signed copy and final checks/signature); and changes to content/format of Form SSC-618. Added section regarding historical site excavation. Included requirement for FOSC Environmental notification on SSC-618. Added relevant document reference of SSC Historic Preservation Plan. Added requirement in 5.2 regarding actions to follow if historic, prehistoric, or human remains are discovered during excavation. Added section 5.2.2 regarding personnel safety and inspection of excavations/trenches prior to entry.
A	12/15/09	J. Craft 8-3574	Replaced Facilities Systems Department with Engineering Services Department. Replaced Facility Systems Engineer with Utility Locator Specialist. Updated references. Section 5.1.3: changed “mechanical methods” to “non-intrusive methods.” Added section 5.1.3j hand locate known but unidentified utility or obstruction. Section 5.2.2: added exception for new confined space requirement. Added Section 5.2.5. Clarified verbiage in Section 5.4. Updated flow chart and Appendix A. Updated formatting in accordance with SPR 1400.1.

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B	12/01/14	Ben Stephens 8-2792	Five-year review. Updated references and acronyms. Revised 5.1 Permit Planning and Approval and 5.2 Excavation criteria. Revised 5.1.3.e, replacing “underground utilities and obstructions” with “outdoor underground utilities and obstructions”; and adding “Due to limitations of the Ground Penetrating Radar equipment, every effort shall be made to determine indoor utility locations in and under concrete by all available means. Specialized Contractor utility locating services may be utilized as needed.” Revised 5.1.3.h, replacing “SSC Historical Preservation Plan” with “SSC Integrated Cultural Resources Management Plan on file in TechDoc”. Revised 5.2.1.b, replacing “in no case shall only wood stakes or only paint be used” with “in no case shall only wood stakes be used”. Revised 5.2.3.g, removing the reference to “the resident archaeologist”; and revised 5.2.3.h, replacing “detectable, metallic tape” with “detectable tracer wire and metallic tape”. “Outsourcing Desktop Initiative for NASA (ODIN)” changed to “Information and Technical Services (ITS) Contractor” in all references throughout document. “FOSC” changed to “NASA or its designee” in all references throughout document.
C	02.12.16	R. Carol Wolfram 8-1164	Administrative change. Replaced “FOSC” and “NASA or its designee” with “SACOM” throughout document. Replaced “SWR” with “Task Order” throughout document.

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1.0 PURPOSE

This John C. Stennis Space Center (SSC) standard (SSTD) establishes the requirements and responsibilities for all excavations as defined in Section 5.1.1, specifically as they relate to processing of the Dig Permit (Form SSC-618) located on the SSC Electronics Form Index.

2.0 APPLICABILITY

This SSTD applies to SSC excavations for renovations, repairs, new construction, exploratory work, or field investigations/studies involving SSC underground utilities and to persons who perform or have responsibility for SSC excavations and utility system configuration control.

3.0 REFERENCE AND RELEVANT DOCUMENTS

All references are assumed to be the latest version unless otherwise indicated.

Site-wide Operation and Repair Document (SORD) Drawings:

11B00-R000, *Site Plan Oxygen Liquid Oxygen Index Sheet*
11C00-R000, *Site Plan Hydrogen Index Sheet*
11D00-R000, *Site Plan RP-1 Index Sheet*
11F00-R000, *Site Plan Nitrogen Index Sheet*
11G00-R000, *Site Plan Helium Index Sheet*
11H00-R000, *Site Plan High Pressure Air Lines Index Sheet*
11J00-R000, *Site Plan High Pressure Industrial Water Index Sheet*
12B00-S000, *13.8 kV Site Plan Electrical Distribution System Index*
12D00-R000, *Site Plan Natural Gas Line Index Sheet*
12F00-R000, *Site Plan Sanitary Sewerage System Index Sheet*
12G00-R000, *Site Plan Potable Water Index Sheet*
12H00-R000, *Site Plan High Temperature and Chilled Water Systems*
12M00-S000, *Site-wide Telecommunications Systems Index Sheet*

29 CFR 1926 Subpart M, *Fall Protection*

29 CFR 1926 Subpart P, *Excavations*

Form SSC-151A, *Engineering Modification Instruction Package Index*

Form SSC-618, *Dig Permit*

Form SSC-625, *Certificate of Completion*

SPLN-8500-0090, *SSC Integrated Cultural Resources Management Plan*

SPR 8500.2, *Environmental Operations & Implementation Program Procedural Requirements*

SPR 8715.1, *Safety and Health Program Requirements*

SSTD-8070-0001-CONFIG, *Facilities Engineering Documentation Standard*

SSTD-8070-0005-CONFIG, *Preparation, Review, Approval, and Release of SSC Standards*

SSTD-8070-0009-CONFIG, *Preparation of Form SSC-625, Certificate of Completion (COC)*

SSTD-8070-0124-IDCODES, *Identification of Piping Systems and Above-Ground Markers*

SSP-8715-0001, *SSC Safety and Health Handbook*



Documents

Document Sharing Hub

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4.0 RESPONSIBILITIES

- The National Aeronautics and Space Administration (NASA) SSC Center Operations Directorate, Design and Construction Project Management Division (PMD), and Operations and Maintenance Division (OMD) are responsible for approval of the content of this SSTD and have final authority for its interpretation.
- Synergy-Achieving Consolidated Operations and Maintenance (SACOM) Engineering Services Department (ESD) is responsible for control of the SSC excavation and permit processes.
- NASA and contractor personnel have various responsibilities for planning, approval, supervising, monitoring, notifying, and documenting, as specified throughout this SSTD.
- NASA and contractor organizations are responsible for the use and maintenance of this SSTD in accordance with SSTD-8070-0005-CONFIG.

5.0 REQUIREMENTS AND PROCEDURES

5.1 PERMIT PLANNING AND APPROVAL

The Dig Permit (Form SSC-618) is a three-part form which authorizes excavation at locations specified in the documents referenced on the permit. However, it does not guarantee that all subsurface utilities have been identified and marked and are, in fact, located where or to the depths indicated on the configuration documentation. Information is as complete and up-to-date as possible, based on research and investigation of the best information available to identify and locate underground utilities at excavation sites. Details for initiation, approval, and processing of a Dig Permit are specified in the following subsections and the flow chart in Section 8.0. For damage or interruption of utilities during an excavation, and for unscheduled or emergency excavations, refer to Sections 5.3 and 5.4, respectively.

5.1.1 Criteria

An approved Dig Permit (Form SSC-618) is required before work begins for:

- Exterior excavations (digging, trenching, drilling) that exceed 30.5 centimeters (cm) (12 inches) below grade (ground surface) of any SSC Fee Area or Buffer Zone Area.
- All excavations, regardless of depth, in historic areas. The Historical Preservation Officer must be contacted if dig is in an historic area. (Reference the Historic Site Impact Map.)

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- c. Removal of, or cutting through, any existing outdoor roadway or parking lot surfaces (e.g., stone, asphalt).
- d. Removal of, or cutting through, any concrete floors, pads, footings, or other concrete structures, whether indoor or outdoor.
- e. Exploratory excavations.
- f. Any penetration of grade that exceeds 30.5 cm (12 inches).

5.1.2 Initiation/Request

- a. When a SSC project requires excavating, the appropriate Dig Permit requestor (as described in this paragraph and 5.1.2.b) shall notify SACOM ESD by submitting a SSC Task Order and a sketch, with an Engineering Modification Instruction (EMI) Index Sheet (Form SSC-151A), showing a 3-meter (10-foot) right-of-way (1.5 meters [5 feet] on each side of centerline) along the route of the proposed excavation.
- b. For projects in design, the Design Engineer shall notify SACOM ESD by providing a Task Order and an EMI with sketch as soon as the requirement for excavation has been identified and no later than the 90% design review meeting.
- c. For all projects that require excavation work, SACOM ESD shall be invited to all design reviews and other meetings affecting the project design.
- d. For projects to be implemented, the Construction Manager or Dig Site Supervisor shall verify all applicable permits are in place and contact SACOM ESD by providing a Task Order and an EMI (Form SSC-151A) with sketch no later than five (5) working days prior to the planned start of the excavation.
- e. For circumstances that are unscheduled and/or emergencies, SACOM ESD will expedite approval/issue of the Dig Permit to avoid project delays. Refer to Section 5.4.

5.1.3 Research and Investigation

- a. Upon receipt of proper notification for a Dig Permit, per Section 5.1.2, SACOM ESD shall conduct the required research to determine if underground utilities are present along the proposed excavation route and if historically significant areas are involved.
- b. All known information sources shall be used, e.g., Facilities Master Plan, systems site plans, site drawings, applicable building drawings (for excavations within 1.5 m [5 ft] of a