

Mission Success Starts With Safety



# Construction Safety

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SSC Construction Inspection  
Safety Findings/Stats

February 2011



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# Contact Info

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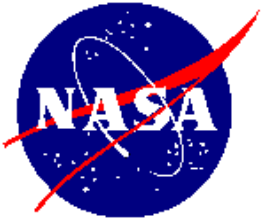
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# Construction Safety Findings: 31 January-04 February 2011

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## Findings Total: 3

-Serious Findings: 0

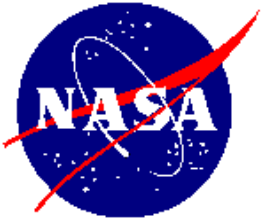
-Less than Serious Findings: 1

1. Fire extinguisher was found on site with a lapsed inspection sticker.

## Mishaps / Close Calls: 1

-Mishap: 1

1. A conduit containing live electrical wires as well as a ground wire were damaged by a core-drilling operation. The employee was not injured but the cost of the repair is estimated to be over \$1000, making this a Type D (property damage) Mishap.



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# Construction Safety Findings: 07-11 February 2011

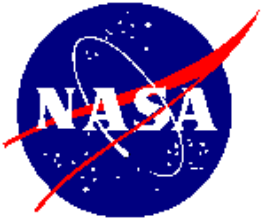
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**Findings Total: 0**

**-Serious Findings: 0**

**-Less than Serious Findings: 0**

**Mishaps / Close Calls: 0**



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# Construction Safety Findings: 14-18 February 2011

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**Findings Total: 0**

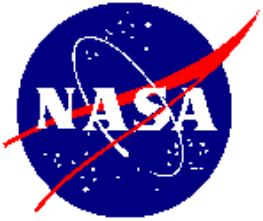
**-Serious Findings: 0**

**-Less than Serious Findings: 0**

**Mishaps / Close Calls: 1**

**-Mishap: 1**

1. While core-drilling holes along the south side of the B-2 Test Stand, a conduit containing communication wires was damaged. No injury, repairs are being determined.



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# Construction Safety Findings: 21-25 February 2011

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## Findings Total: 3

### -Serious Findings: 1

1. Worker observed on the roof of the building, outside of the designated controlled access zone, without proper fall protection. 29 CFR 1926.502(g)

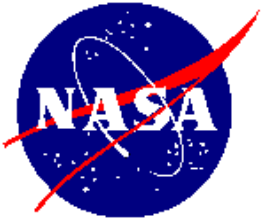
### -Less than Serious Findings: 2

1. Mobile crane being operated without the Daily Inspection Report being completed. 29 CFR 1926.150
2. Workers removed a portion of the raised floor and did not adequately protect the opening to prevent someone from falling in it. 29 CFR 1926.501

## Mishaps / Close Calls: 1

### -Mishap: 1

1. A small fire occurred on level seven of the Test Stand. Workers were using a torch on level ten, when the fire ignited on seven. Three lights, waiting to be installed were damaged when the cardboard boxes they were packaged in burned.



# Construction Safety Findings: Fire Safety

Stennis Common Work Instruction	SCWI-8838-0002	Basic
	Number	Rev.
	Effective Date: February 25, 2009	
	Review Date: February 25, 2014	
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Responsible Office: NASA-SSC Center Operations Directorate		
SUBJECT: Hot Work Program Procedure		

### 1.0 Purpose

This work instruction establishes the requirements and procedures for the Hot Work Permit Program at Stennis Space Center (SSC) whereby strict protocols are followed to reduce risk of fire injuries and damage to life and property.

### 2.0 Applicability

This instruction is applicable to all NASA/SSC organizations including civil service and support contractors, and is applicable to other tenants of NASA's John C. Stennis Space Center, to the extent formal agreement is reached between NASA and the tenant.

This document covers all hot work operations involving, but not limited to, electric arc welding, oxy-acetylene cutting/welding/heating operations, operations of electrical pneumatic or mechanical tools in hazardous classified areas that are not intrinsically safe, soldering torches powered by flammable gases, and open-flame-producing devices or devices that produce hot sparks during operations.

### 3.0 References

- 3.1. NPR 8715.3, *NASA Safety Manual*.
- 3.2. NASA-STD-8719.11 *Safety Standard for Fire Protection*.
- 3.3. Code of Federal Regulations 29 CFR 1910.252, Subpart Q, *Welding, Cutting and Brazing, General Requirements*.
- 3.4. Code of Federal Regulations 29 CFR 1910.253, Subpart Q, *Welding, Cutting and Brazing, Oxygen-fuel welding and cutting*.
- 3.5. NFPA 51B, *Standard for Fire Prevention during Welding, Cutting, and other Hot Work*.
- 3.6. NASA-STD-8719.12, *Safety Standard for Explosives, Propellants, and Pyrotechnics*
- 3.7. FOSC document ST-P-46 Employee Certifications
- 3.8. FOSC document ST-P-20 Hazard Assessment
- 3.9. FOSC document MT-P-03 Welding/Cutting/Brazing Operations
- 3.10. Form SSC-90, Process Plan
- 3.11. Form SSC-68, Flame "Hot Work" Permit

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

### 4.0 Responsibilities

#### 4.1 NASA Center Operations

Stennis Common Work Instruction	SCWI-8838-0002	Basic
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The NASA Center Operations Fire Protection Program Manager has overall responsibility for development of this instruction, and approve all organizations requesting approval of facilities or construction sites for Hot Work without daily permits. Organizations requesting authorization to issue Hot Work Permits shall make formal requests in writing to the Fire Protection Program Manager.

#### 4.2 Fire Protection Services

The SSC Fire Chief of the Facility Operating Services Contract (FOSC), and through the FOSC Safety Services, will provide support to the NASA Fire Protection Program Manager by reviewing, updating, implementing and maintaining the SSC Hot Works Program Procedure document.

#### 4.3 Civil Servant Personnel

Civil Servant Personnel will not be assigned tasks that include potential exposure to "hot work." If assignments are made in the future, civil servants will comply with this instruction.

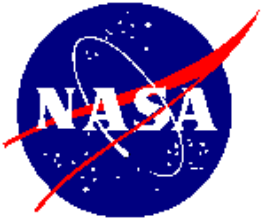
#### 4.4 Contractors, Tenants

Contractors and tenants will identify any hot work tasks and comply with this instruction.

### 5.0 Procedure/Process

**Introduction:** Hot Work Permits provide documented approval to conduct welding, cutting, brazing or other spark/flame/heat-producing operation.

- 5.1 Daily Hot Work Permits are required for all welding, cutting, brazing, and spark/heat/flame-producing operations in all areas at SSC, except those unique areas suitable for hot work operations that qualify for permanent and specific duration permits.
- 5.2 Hot Work permits issued are valid for the duration of the work shift unless otherwise limited by the Permit Authorizing Individual (PAI). Such limitations will be noted on the form in the expiration (date/time) block of Form SSC-68.
- 5.3 Requests for Permanent permits for welding or designated welding facilities will be processed through the SSC Fire Department, the FOSC Safety & Mission Assurance (S&MA) Office and approved by the NASA-SSC Fire Protection Program Manager. Requests shall consist of a copy of the written Facility Safety Plan and inspection criteria. Such welding or designated welding facilities will be



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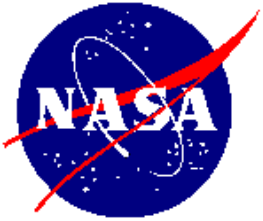
Stennis Common Work Instruction	SCWI-SS38-0002 Number	Basic Rev
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issued permanent permits for a maximum of 24 months. These facilities must meet the following requirements as a minimum:

- a) A written Facility Safety Plan (as outlined in NPR 8715.3 and NASA-STD-8719.7A) shall be maintained and address the hazards in the area associated with hot work operations.
- b) The facility must be constructed and maintained in such a manner that hot work operations do not jeopardize the fire safety of the facility.
- c) Appropriate fire detection and fire alarm systems must be operational at all times as approved by the SSC Fire Department.
- d) The facility will be inspected at least annually to ensure compliance with the requirements of the authorization letter for operating the facility without a daily permit. SSC Fire Department will document and maintain inspections.
- e) The responsible supervisor for the unique facility shall ensure specific conditions, unique to the site and location, to remain in continual compliance with original permit requirements.

- 5.4 The SSC Fire Department is responsible for controlling and issuing Hot Work Permits, and is thereby the Hot Work Permit Program Administrator.
- 5.5 The SSC Fire Department will maintain a list of Permit Authorizing Individuals (PAIs), as well as serve with FOSC S&MA as the PAIs issuing all SSC hot work permits. PAIs will be certified to issue Hot Work Permits per FOSC document ST-P-46 Employee Certifications.
- 5.6 The SSC Fire Department will brief SSC subcontractors on the Hot Work Permit Program and its requirements at all preconstruction briefings.
- 5.7 Facility managers or their designees shall approve Hot Work Permits for their assigned areas. If the facility manager or designee is unavailable, the person responsible for the system/facility area or hot work operation (such as Test Operations Engineer [TOE], construction engineer, leadperson) will approve the Hot Work Permit.
- 5.8 In Test Complex areas, the Test Operations Engineer (TOE) shall approve Hot Work permits for their assigned areas. TOEs will:
  - a) help identify potential flammable sources for safe atmospheric checks.
  - b) coordinate test stand activity around the hot work activity
  - c) Notify the leadperson listed on the Hot Work Permit and the PAI to void the permit if it is necessary to change configuration of the system involved.
- 5.9 All personnel engaged in welding, cutting, spark-producing, or heat-producing operation are responsible for knowing the exact locations of the nearest telephone and/or nearest fire alarm pull station to be used in case of an emergency.





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