

Mission Success Starts With Safety



Construction Safety

SSC Construction Inspection
Safety Findings/Stats

October 2011



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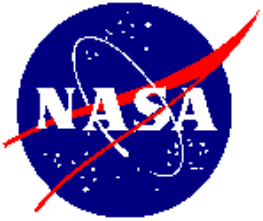
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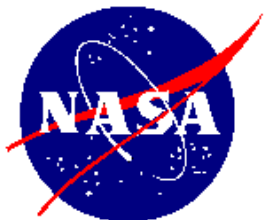
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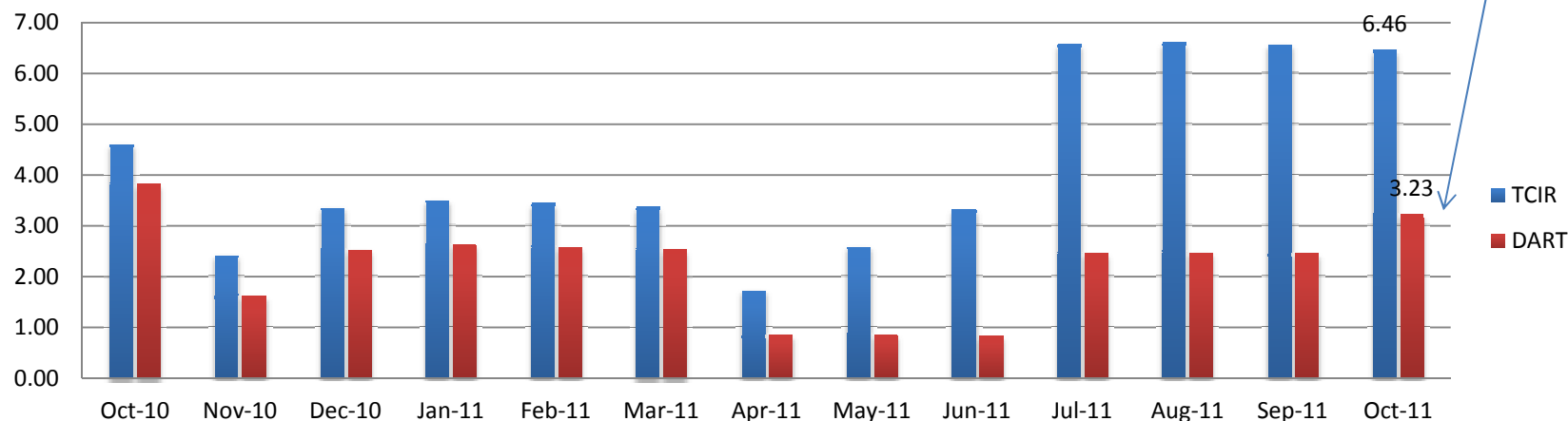


SSC Construction Metrics

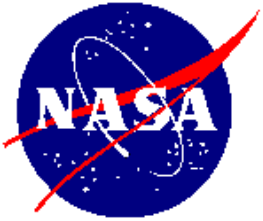
- For the month of October:
 - 0% of CCRS items (0 out of 4) were construction related
 - 20% of IRIS incidents (2 out of 10) were NASA Direct construction related (restricted duty described below, and hardhat fell to ground level at A3.) Other construction, non-NASA Direct Close Calls – scaffold clamp fell through grating; Army Corps contractor hits potable water line.)

**Total Case Incident Rate (TCIR)/
Days Away Restricted Transfer (DART)**

One restricted duty knee injury at A3.
(Employee stepped into pipe trench.)



2009 NAICS Industry Code (Construction) TCIR = 4.3
2009 NAICS Industry Code (Construction) DART = 2.3



Construction Safety Findings: 03-07 October 2011

Findings Total: 0

-Serious Findings: 0

-Less than Serious Findings: 0

Mishaps / Close Calls: 1

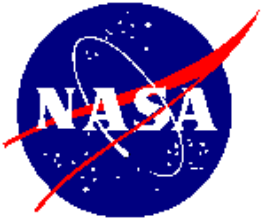
-Mishap: 0

1. On October 5th, an employee working around a newly laid 24" pipe, lost his footing and wrenched his knee during pressure test prep operations. The employee was transported to the SSC clinic but requested to be seen at an off site medical treatment facility. The patient was prescribed medication and told to restrict duties to those that didn't involve the strenuous use of the injured knee. (Type C)

-Close Call(s): 1

1. On October 4th, a scaffolding contractor was removing scaffolding pods from the LH run tank when one of the scaffolding clamps fell through a void in the level 12 platform grating. The void has since been covered to where no objects could fall through. There were no injuries or damage to any personnel or equipment as a result of this incident.(Close call.)





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Construction Safety Findings: 10-14 October 2011

Findings Total: 0

-Serious Findings: 0

-Less than Serious Findings: 0

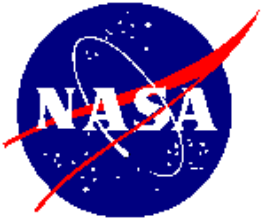
Mishaps / Close Calls: 1

-Mishap: 0

-Close Call(s): 1

1. On October 12, a contractor excavating for the placement of an underground duct-bank along Saturn Drive near Bldg 8000, struck a buried 3/4" PVC line with a backhoe. The line which was initially laid to supply water to contractor trailers during the construction of Bldg. 8000, was pressurized and not represented on any drawings.





Construction Safety Findings: 17-21 October 2011

Findings Total: 1

-Serious Findings: 1

1. The contractor working on a USACE project, installing a duct-bank, was observed operating too close to an overhead power line with an excavator. The contractor was counseled on the need for a spotter, a spotter was assigned and NASA SMA was notified. Later, NASA SMA observed the same contractor not using a spotter, under the same overhead power line. SMA stopped the job and notified the General contractor and USACE. 29 CFR 1926.1501(a)(15)(iv)

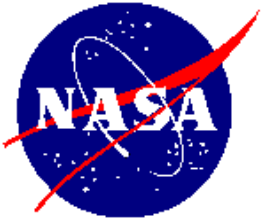
-Less than Serious Findings: 0

Mishaps / Close Calls: 1

-Mishap: 0

-Close Call(s): 1

1. A scaffold worker was disassembling scaffolding on level 4 of a test stand and struck an I-beam with the hard hat. The hard hat was knocked off, fell to the ground level and hit another employee on the shoulder. The employee was checked out by the contractor safety professional, did not complain of any pain/injury and did not go to the SSC clinic, making this a Close Call.



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Construction Safety Findings: 24-28 October 2011

Findings Total: 1

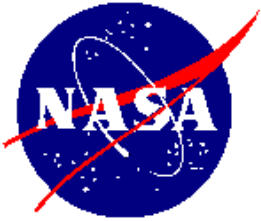
-Serious Findings: 0

-Less than Serious Findings: 1

1. Guard rails around the hydrogen vent line trench are in disrepair. Rails will not support the OSHA lateral and horizontal load requirements.
 - Long term corrective action is removable hand rails.

Mishaps / Close Calls: 0





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SSC Construction Safety: October 2011

Revisions to Construction SCWI:

9.21 Cranes

The use of any crane shall comply with 29 CFR 1926.1501, Subpart DD and SWI-8834-0001, Lifting Devices and Equipment Management Instructions.



National Aeronautics and
Space Administration
John C. Stennis Space Center
Stennis Space Center, MS
39028-0001

SWI-8834-0001 Rev. 5
August 2010

John C. Stennis Space Center
Lifting Devices and Equipment
Management Instructions

Stennis Work Instruction	SWI- 8834-0001	5
	Effective Date: August 3, 2010	Rev.
	Review Date: August 3, 2013	
Responsible Office: RA00/Center Operations Directorate		
SUBJECT: Lifting Devices and Equipment Management Instructions		

1.0 OVERVIEW

1.1 Purpose.

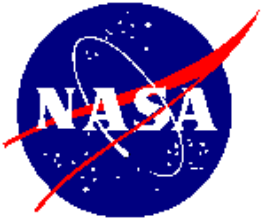
This Lifting Devices and Equipment Management Instruction provides requirements for maintenance, inspection, test, certification, repair, alteration, operation, and/or use of Stennis Space Center (SSC) weight handling and rigging equipment (i.e., Lifting Devices and Equipment –LDE). Criteria within this document are the minimum requirements for applicable equipment and meet or exceed OSHA requirements.

1.2 Applicability

- a. This instruction is applicable to NASA/SSC and to NASA contractors and SSC Resident Agencies to the extent specified in their respective contractual documents.
- b. Compliance with this document is mandatory for all NASA owned lifting devices and equipment and contractor supplied lifting equipment used in NASA operations at SSC. Individual contractors are responsible for implementation and enforcement. If lifting equipment is equipped with features or components not specifically covered by requirements of this document, the Facility Operation Services Contract (FOSC) shall inspect and test (where testing is practical) the equipment for proper condition and operation. This document covers two types of lifting operations, critical and non-critical (ref. Unofficial Inventory of Cranes, Monorails, and Hoists for identification. The official inventory resides in the FOSC Computerized Maintenance Management System).
- c. Specific instructions in this document are intended to act as a procedural reference for LDE frequently used at SSC. NASA and Contractors/Operators of NASA LDE property and/or lifting operations at SSC utilizing NASA LDE property are required to be in compliance of NASA-STD-8719.9 and SWI-8834-0001. At a minimum, contractors conducting lift operations utilizing contractor owned LDE at SSC are required to be in compliance with applicable OSHA standards.
- d. While it is not the intent to supersede or replace the requirements of NASA-STD-8719.9, Standard for Lifting Devices and Equipment; in those instances where NASA-STD-8719.9 is not pertinent to the unique operational needs of Stennis Space Center, an alternate means that is more applicable to Stennis Space Center is provided in accordance with Section 3.3. In all other cases, the requirements of NASA-STD-8719.9 apply and shall be required.

1.3 Applicable Equipment

This document applies to Monorail Hoists, Mobile Cranes, Derricks, Jib Cranes, Bridge Cranes, Chain Hoists, Gantry Cranes, rigging gear (slings, shackles, eyebolts, swivel hoist rings, links,



SSC Construction Safety: October 2011

Revisions to Construction SCWI:

9.25 Excavation and Trenching

9.25.1 General Requirements

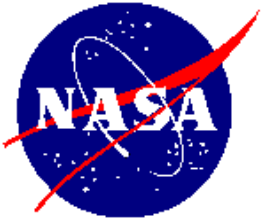
Interference Tolerances: Known or questionable interferences shall be hand-dug or vacuum excavated within six (6) feet (1.8 meters) of the interferences.

9.25 Excavation and Trenching

9.25.1 General Requirements

- 4. (o) During the excavation, any deviations from the originally proposed route (as depicted on the requester's sketch) will require the issuance of another Dig Permit.

- 4.(p) During the course of an excavation, should an unknown or unmarked buried utility be located or damage occur to a known or unknown buried utility, the contractor shall immediately stop the excavation and notify, by telephone, the Facilities System Engineer, COTR and NASA Safety. The current Dig Permit shall be revoked, pending an investigation. The contractor may return to work after a new Dig Permit is issued.



SSC Construction Safety: October 2011

Revisions to Construction SCWI:

9.23.2 Specific Requirements – Concrete Finishing Equipment

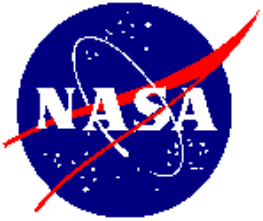
2. Concrete Saws, Abrasive Saws, and Other Powered Equipment:

- a. Equip all tools and all guards as provided by the manufacturer.
- b. Use only appropriate blades, discs, and other consumable parts designed and “rated” for the tool, saw, or equipment.
- c. Do not use saws, drills, abrasive saws, and other tools for purposes other than for which they were designed; use only within the manufacturer’s limitations.
- d. **Do not cut, drill, sand, grind or shot blast concrete or concrete block dry. Wet methods must be utilized in all situations unless the methods pose a safety or environmental risk. If the work results in the generation of visible dust, employees will be monitored for exposure to silica.**

-9.26 Pile Driving Operations

-9.26.2 General Requirements

5. **Leads:** Fixed and swinging leads shall be provided with ladders and safety climbing devices, or similar attachment points, so that elevated workers constantly have their safety harness lanyards attached. If the leads are provided with loft platform(s), such platform(s) must be protected by standard guardrails. Employees shall not remain on leads, ladders or platforms while pile is being driven.



SSC Construction Safety: October 2011

Revisions to Construction SCWI:

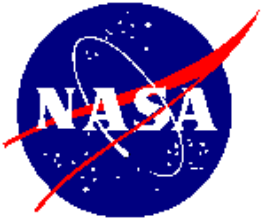
9.31 Ladder Safety

Entire section was added to cover basic ladder safety.

Definitions:

Construction Site – An area where construction activities are in progress including: construction, excavation, alteration, renovation, repair, painting, decorating, **surveying**, and demolition.

Consultant - Experienced professional or firm who provides expert knowledge for a fee. He or she works in an advisory capacity only. If the scope of the consultation should lead to construction like activities, the Consultant shall be considered a construction contractor and applicability to this SCWI and all associated procedures shall apply, as stated in section 2.0.

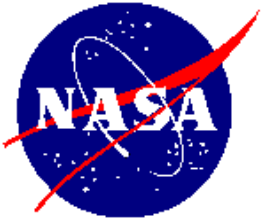


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Construction Safety

The following video demonstrates what may happen when an aerial lift is operated improperly!

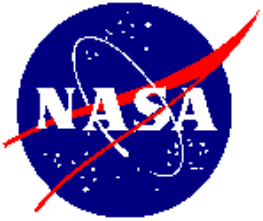


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Construction Safety





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Construction Safety

Have a SAFE month!

<http://constructionsafety.ssc.nasa.gov/>