



Construction Safety

SSC Construction Inspection
Safety Findings/Stats

March 2017



Mission Success Starts With Safety



Contact Info:

NASA Safety

Donna Dubuisson

donna.a.dubuisson@nasa.gov

228-688-2663 phone

288-688-3701 fax

Jesse Lamonte

jesse.m.lamonte@nasa.gov

228-688-1422

228-688-2760 fax

Kathy Cooper

kathy.a.cooper@nasa.gov

228-688-1747

228-688-3701 fax

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



Mission Success Starts With Safety



Contact Info:

BASTION/SACOM Safety

Donald Smith, CHST

donald.g.smith-1@nasa.gov

228-688-1085 phone

228-688-3701 fax

Mark Bridenbeck, TES

mark.a.bridenbeck@nasa.gov

228-688-1732 phone

228-688-3701 fax

John Lindsay, CSP

john.d.lindsay@nasa.gov

228-688-2557 phone

288-688-3503 fax

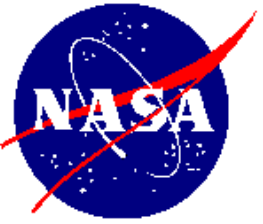
Chris Davis, ASP

christopher.m.davis-1@nasa.gov

225-802-6273 phone

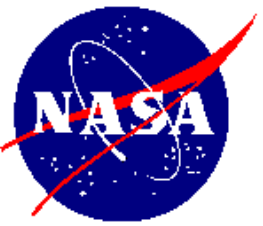
288-688-3503 fax

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



OSHA's Stop Falls Stand Down

- <https://www.osha.gov/StopFallsStandDown/>
- OSHA's Stand Down For Fall Protection
- Encourage contractor full support and participation
- May 8-12- Please conduct a one time stand-down to discuss , demonstrate Fall Protection and it's importance in saving lives.



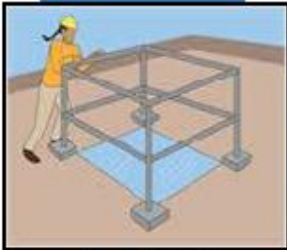
The 2017 SSC Site Goal is to: *Improve fall protection awareness*



OSHA Fall Protection: Safety Facts

Falls are Preventable, in 2016 Construction Site Falls resulted in **258 Fatalities**

Guardrail System



Safety Net System



Personal Fall Arrest System



Steel Rebar Guard or Covering



Most Fall-related Injuries

- Unprotected Sides, Wall Openings, and Floor Holes
- Improper Scaffold Construction
- Falling on Unprotected Protruding Steel Rebar
- Misuse of Portable Ladders

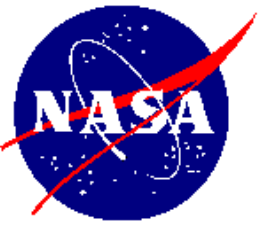
How do I Avoid Fall Hazards?

- Guardrail Systems built to OSHA standards
- Safety Net Systems
- Personal Fall Arrest Systems
- Guard Rebar
- Proper use of Ladders






Year	Approx. # Fall	Fatalities
2013	291	
2014	379	
2015	364	

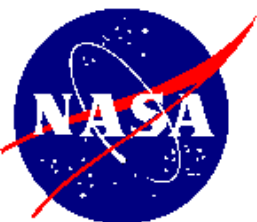
Ladder at Proper Angle
Secured Footing





Heat Index Chart

Category	Flag	Heat Index	Intensity of Prolonged Exposure and/or Physical Activity
Okay		Less than 80° F (< 27° C)	
Caution		80 - 90° F (27 - 32° C)	Fatigue possible with prolonged exposure and/or physical activity.
Extreme Caution		90 - 105° F (32 - 41° C)	Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Danger		105 - 129° F (41 - 54° C)	Sunstroke, muscle cramps, and/or heat exhaustion likely. Heat stroke possible with prolonged exposure and/or physical activity.
Extreme Danger		130° F or higher (54° C or higher)	Heat stroke or sunstroke likely.



Heat / Humidity

Heat Index Chart (air temperature and relative humidity)

Temperature (F) versus Relative Humidity (%)

°F	90%	80%	70%	60%	50%	40%
80	85	84	82	81	80	79
85	101	96	92	90	86	84
90	121	113	105	99	94	90
95		133	122	113	105	98
100			142	129	118	109
105				148	133	121
110						135

HI	Possible Heat Disorder:
80°F - 90°F	Fatigue possible with prolonged exposure and physical activity.
90°F - 105°F	Sunstroke, heat cramps and heat exhaustion possible.
105°F - 130°F	Sunstroke, heat cramps, and heat exhaustion likely, and heat stroke possible.
130°F or greater	Heat stroke highly likely with continued exposure.



SCWI Heat Stress Program

RELEASED -Stennis Common Work Instruction SCWI-8715-0014 B *Number Rev.* Effective Date: August 2013 Expiration Date: August 2017 Page 8 of 16 Responsible Office: QA00, Safety and Mission Assurance Directorate **SUBJECT: Heat Stress Program**

5.4. General Controls

The following are general controls for employees exposed above the Action Limit:

- a. Provide verbal and written instructions, annual training, and other information on heat stress and strain.
- b. Encourage drinking small volumes (approximately one (1) cup) of cool, palatable water, or a fluid replacement drink about every twenty (20) minutes.
 - 1) Fresh drinking water (plumbed, bottled or water coolers) shall be provided daily at construction sites. If coolers are used, they shall be changed daily, taped/sealed and dated.
 - 2) Water coolers shall be cleaned/sanitized as needed but no less than once per month per the following guidance: Wash, wipe and/or rinse the cooler with a detergent and water (wipe/wash away visible algae/grime/dirt). Sanitize the water cooler with a chlorine to water mixture of 1:250 (1 tablespoon per gallon of water). Sanitize all surfaces in contact with the drinking water. Let it stand for two (2) minutes and then empty the cooler through the spigot to sanitize it. The cooler can be air dried or rinsed with potable water.



Construction Safety Report: 1 March – 4 March 2017

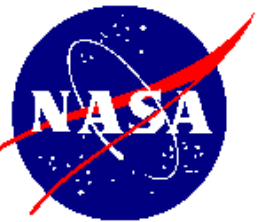
Findings Total: 0

Serious: 0

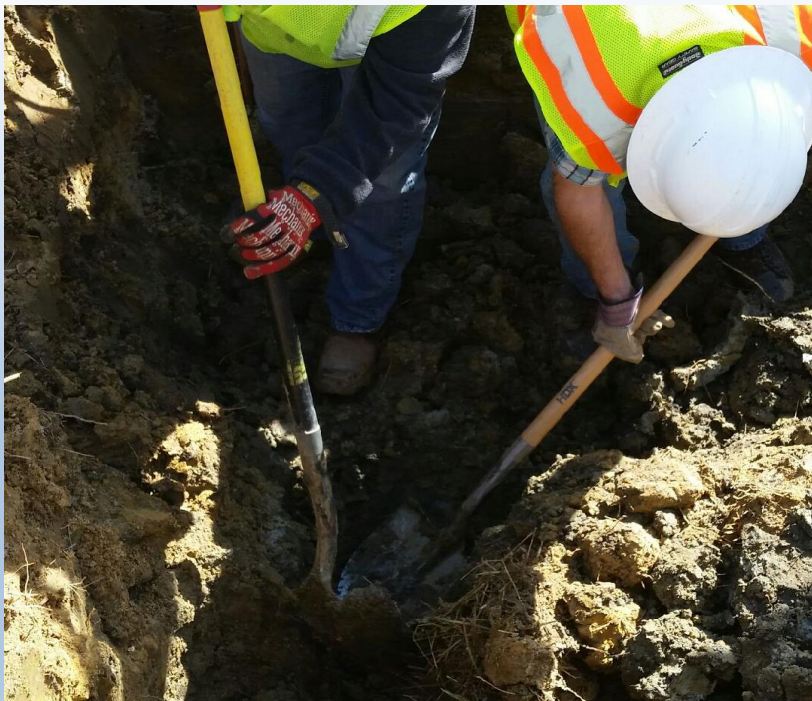
Other than Serious: 0

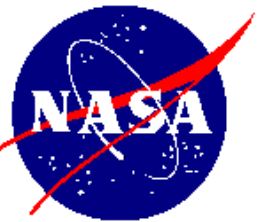
Mishaps / Close Calls: 0

Information: Contractors following proper procedures to locate underground 13,800 volt duct bank after issued permit with map and imaging. **NOTE:** No deviations from proposed and approved dig area drawing.



Hand Dig and Locate

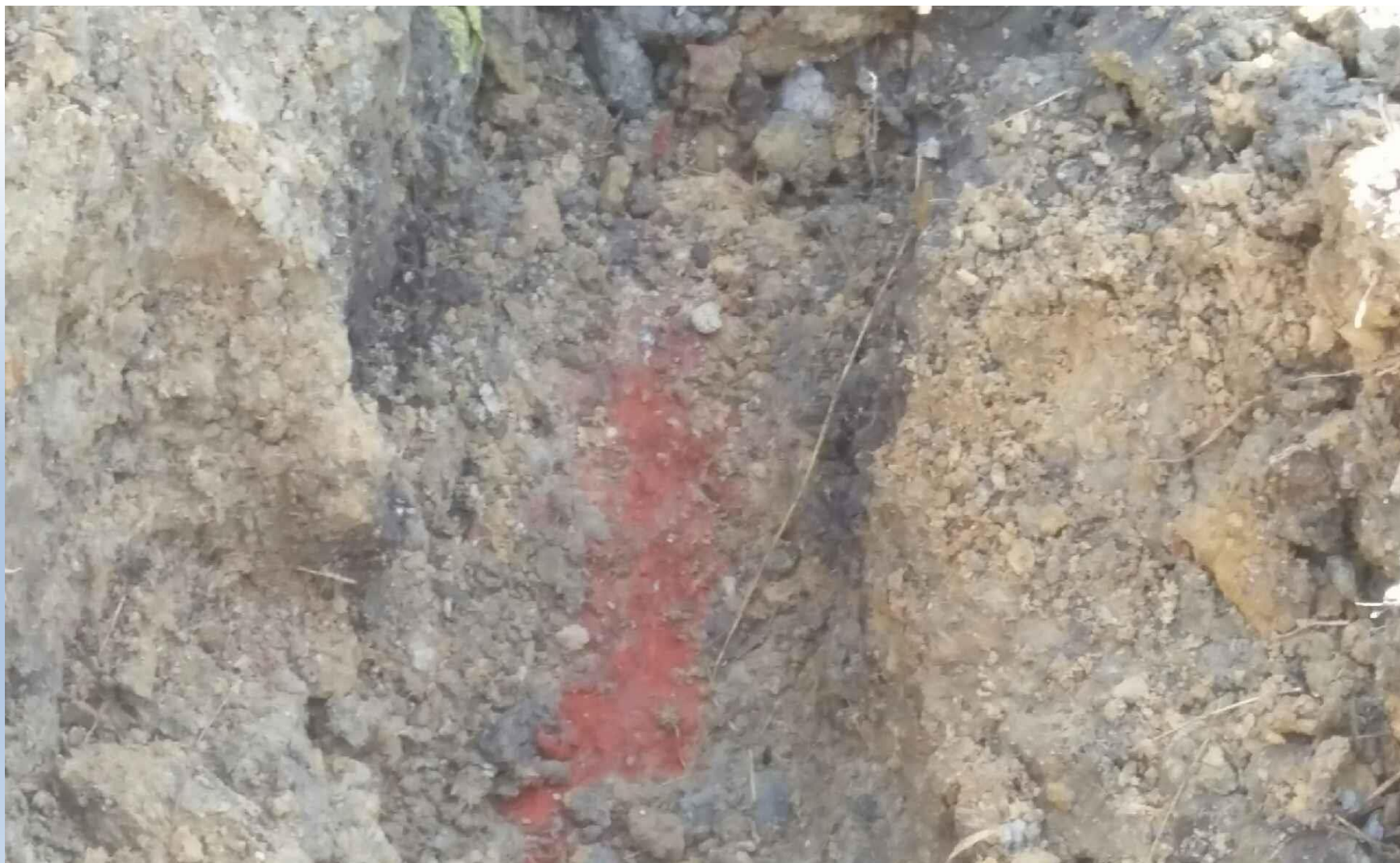


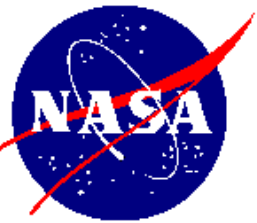


Mission Success Starts With Safety



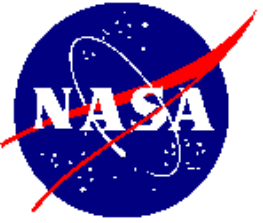
Located Visually





Mark it!





Construction Safety Report: 06 March – 11 March 2017

Findings Total: 1

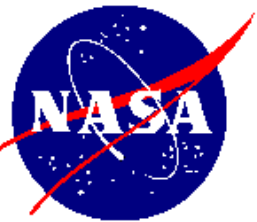
Serious: 0

Other than Serious: 1

- **Timber Replacement**: Contractor failed to submit required SDS information prior to project commencement. Ref: SCWI-8715-0008 9.12 (1 & 2) SHEtrak Closed.

Mishaps / Close Calls: 0

- **Information**: Contractors following proper procedures to wet concrete and debris during demolition and debris loading at bldg. 4302

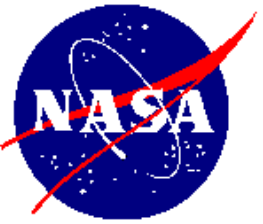


Mission Success Starts With Safety



Dust and Sicilia Control





Construction Safety Report: 13 March – 18 March 2017

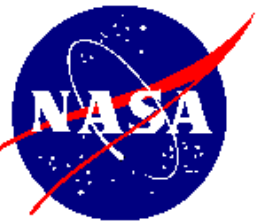
Findings Total: 0

Serious: 0

Other than Serious: 0

Mishaps / Close Calls: 1

On 3/15/17 at 2:15pm a contractor in the A-2 PRA was drilling into the dirt using an auger bit felt resistance and immediately stopped drilling. The contractor extracted the auger bit and probed the area. The contractor then hand dug and visually found a 2 inch buried steel pipe about eighteen inches under grade. The pipe was not identified or marked on the ground or drawings. The proposed dig area was line painted on the ground to be imaged before digging. The status and contents within the pipe was unknown, but was assumed to be either an active or inactive hydrogen, air or nitrogen line. NASA requested the contractor submit a 1627 close call. Recorded NMIS (17-100422) pending closure.



Mission Success Starts With Safety



Construction Safety Findings:





Construction Safety Report: 16 March 2017

— INFORMATION

On 3/16/17 at approx. 2:05pm the Liebherr two section lattice boom crane behind the B-2 test stand was being lowered by an S-3 contracted operator for end of shift night storage. Normally, the boom rests in a inverted V position for storage. The operator was positioning the boom to ground when unexpectedly the entire lattice boom began to slowly fall to the ground landing on part of a contractor's truck and trailer. The crane tilted forward elevating its engine and counter weights. There were no injuries! This is a NMIS close call and is currently under investigation.

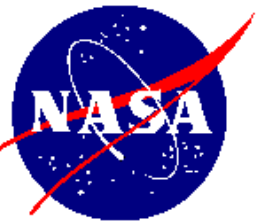


Mission Success Starts With Safety



Top section of crane lattice boom





Contractor truck and trailer damage





Mission Success Starts With Safety



Lattice boom to cab and counter weights





Mission Success Starts With Safety



Lattice boom both sections



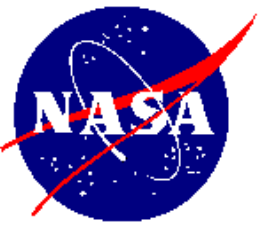


Mission Success Starts With Safety



Lattice boom to cab and counter weights



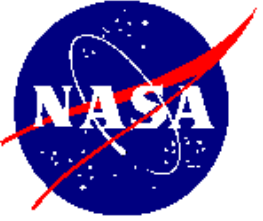


Mission Success Starts With Safety



Lattice boom to cab and counter weights





Construction Safety Report: 20 March – 24 March 2017

Findings Total: 0

Serious: 0

Other than Serious: 0

Mishaps / Close Calls: 2

B-2 STE Phase I While a welder was in the process of installing an overhead pipe, a particle of rust fell behind his safety glasses into his right eye. The contractor's foreman flushed the eye out multiple times but his eye was still irritated. The foreman then transported the employee to the SSC clinic for further treatment. The medical staff at SSC clinic flushed his eye but suggested he be taken to an off-site eye clinic due to further irritation. The off-site clinic was unable to locate anything in his eye and prescribed eye medication for the irritation. No lost time.

Bascule Bridge Contractor sustained a left hand middle finger laceration that required six stitches. He was stripping wire without using the issued gloves PPE. The employee was later terminated by the employer for violating their substance abuse zero tolerance policy.



Construction Safety Report: 27 March – 31 March 2017

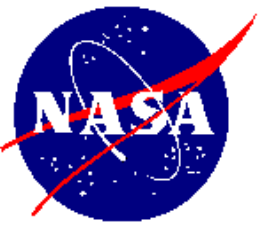
Findings Total: 2

Serious: 0

Other than Serious: 2

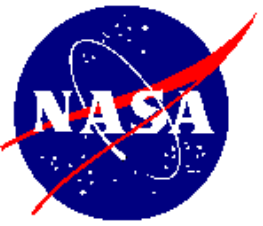
- **Demolition 1210,4302 and 4312:** A contractor was working in the demolition grounds area of building 4312 not wearing his required PPE. Corrected on the spot.
REF: SCWI-8715-0002 Page 12 Item 7.2 a SHEtrak Closed.
- **Demolition 1210,4302 and 4312:** A contractor failed to properly separate an oxygen and fuel gas (propane) cylinder by 20 feet when in storage as required by OSHA.
REF: 29CFR1910.253 b (4) iii SHEtrak Closed

Mishaps / Close Calls: 0



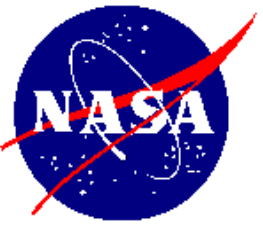
Construction Safety Findings:





Construction Safety Findings:





Questions?

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



Mission Success Starts With Safety



Have a Safe month!