"Who, Me? I had No Idea!"
Multiple Cause Incident
Analysis as a Driver of Systems
Safety Engagement



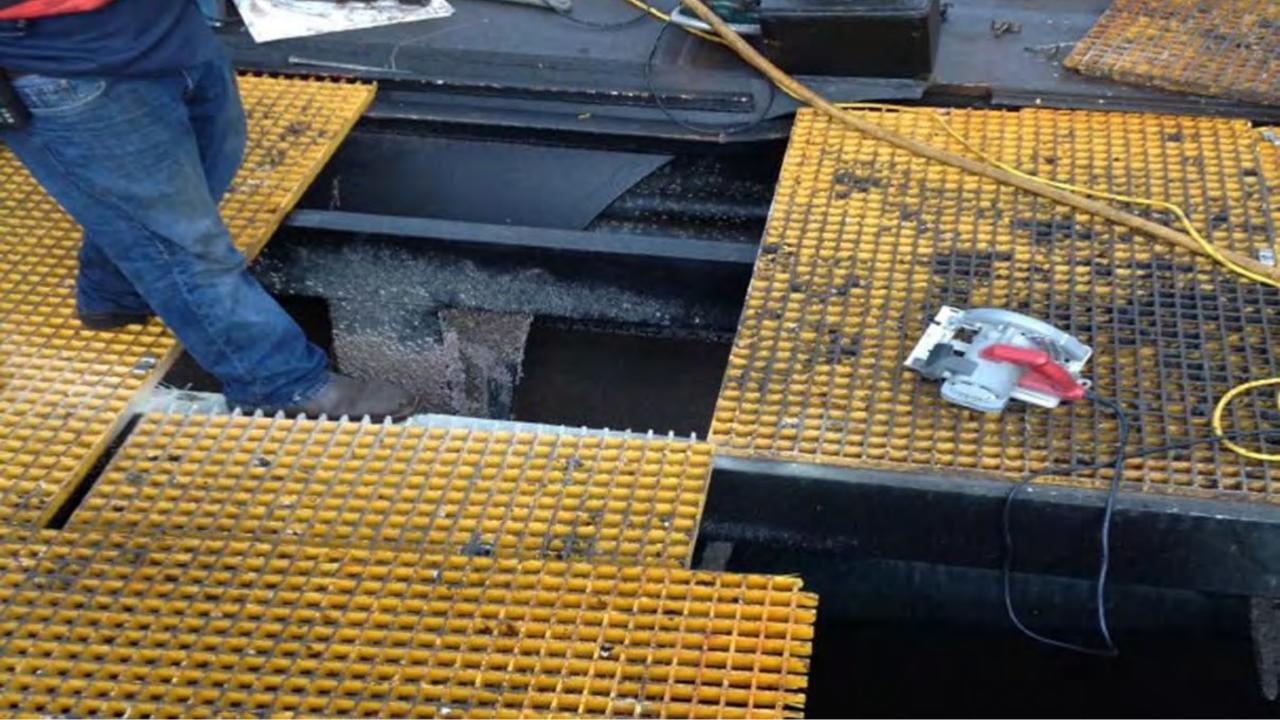




Presented at WEDA Dredging Summit and Expo 2019 "Waves of Change: Oceans of Opportunity"

June 4 – 7 2019

Chicago, IL



SAFETY ALERT



INCIDENT DATE	INCIDENT TIME	PROJECT#	EQUIPMENT / INCIDENT LOCATION
Jul 13, 2018	1400	72584	Dredge CAROLINA
ALERT TYPE		PROJE	ECT NAME
INJURY		Charleston Harbor - Contract 2	
SUPERVISOR		INVOLVED JOB TITLE	
Guadalupe Benavides Deck		nand	

INCIDENT DESCRIPTION

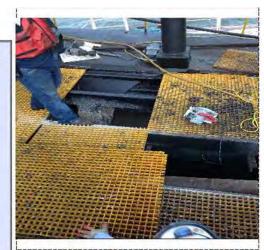
The crew had setup to remove a shaft from the underwater pump. Due to the layout of the grating, 4(four) pieces of grating were removed in order to gain access to allow the shaft to be rigged. Upon removal of the grating, it was not identified that the grating was secured by interlocking with other pieces as compared to independently secured on the supports. As the deckhand was positioning himself to be closer to the chain fall to lift No. 2 shaft, he stepped across from one piece of grating to another that was not secured. The unsecured grating slid from under his feet; as result he went over board. During the incident the deckhand incurred minor scratches / skin irritation.



Corrective Action: Safety Alert

IMMEDIATE ACTION TAKEN

The crew immediately placed all grating back in place and locked/secured them together. The entire crew held a stand down and discussed the incident. Afterwards the crew cut out grating directly above the No. 2 shaft. All grating was back in place except for the portion over the shaft. Axiom was contacted to document the scratches and address any concerns.



TREATMENT REQUIRED

ABRASION

-

PREPARED BY:

SSHO Mike Jimenez

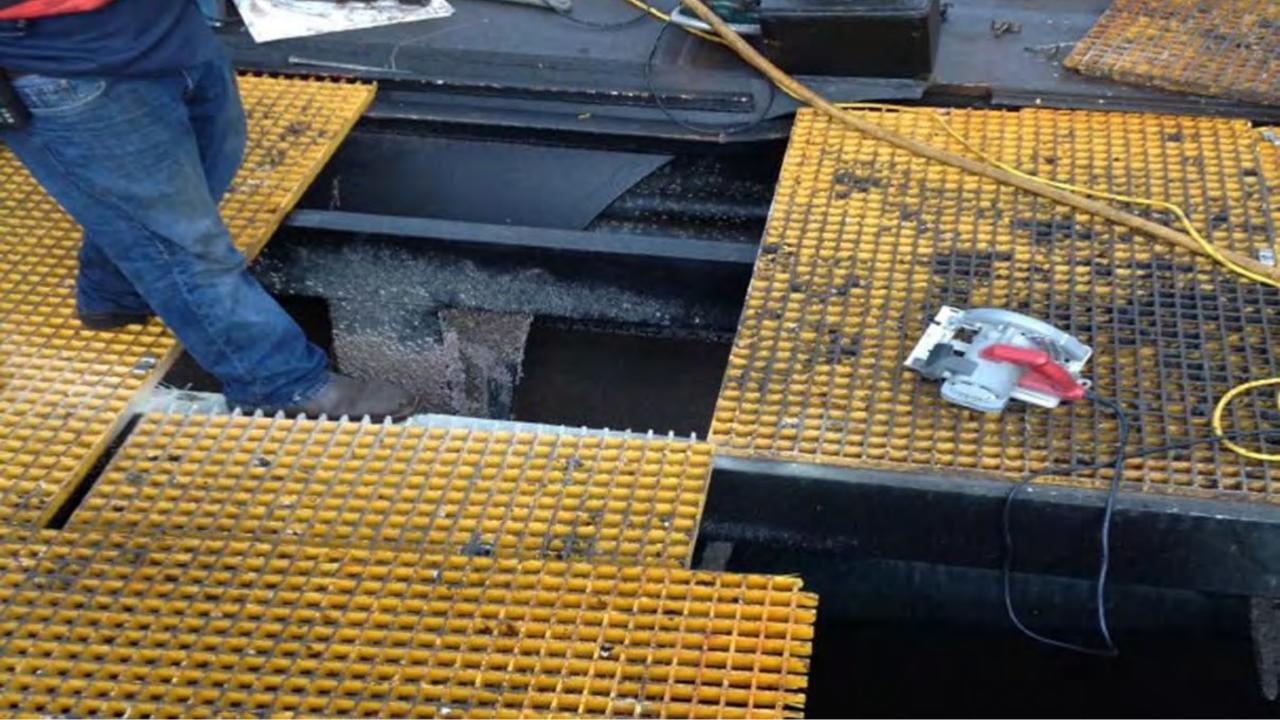
DATE

Jul 13, 2018

Corrective Action: Safety Alert

Replacing Dredge Carolina No. 2 pump shaft







Multiple Cause Incident Analysis

Active engagement

Cross-stakeholder team

Collect pre-cursor data

Multiple Cause Incident Analysis

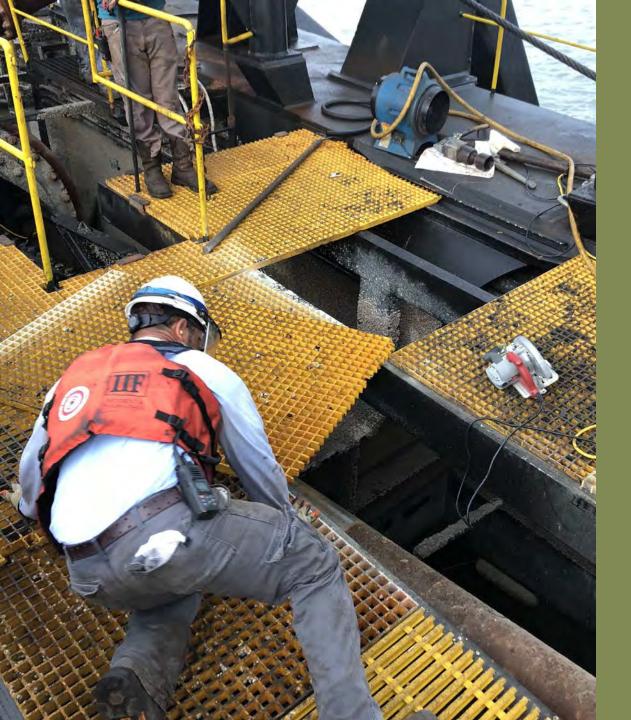
- Prospective Contributing Factors
 - Operator/Individual
 - Work Group
 - o Supervision
 - Equipment/Tools/Materials
 - Work Space/Environment
 - Organization
 - Outside Association

Multiple Cause Incident Analysis

Five Why's analysis

Executive team review

Document and track Corrective
 Actions



Corrective Action:

Grating Cut and Reinstalled



Corrective Action:

Grating Cut and Reinstalled

Case # Dredge Carolina - Man Overboard Hydraulic Dredging Charleston Deepening - 2 07.13.2018

Step 7. Verify Corrective Actions

This Step...

Concluding your Analysis

+ See more

Training to be provided to Carolina crew about fall protection and available techniques. Schedule and conduct fall protection training with the entire dredge crew highlighting areas of confusion. Design grating connecting system for individual pieces Cut and reinstall grating so that the only area without grating is directly above the shaft. Show History Because the ladder position cannot be changed while personnel are working on it, cut and reinstall grating so that the only area without grating is directly above the shaft. Chief, Relief Captain & Deck Captain to be given performance accountabilities for not recognizing potential hazards during the task. Crew members involved with the task to be given coaching sessions by GLDD management to cover incident.





Julie Hile

hile@hilegroup.com

309.888.4453

Dave Johanson

DJJohanson@gldd.com

843.737.6445