

April 10, 2018

U.S. NRC Region IV  
Attn: Jason C. Dykert, Health Physicist, Inspection Branch  
1600 East Lamar Boulevard  
Arlington, Texas 76011-4511

Re: Incident Report for Event 53306

Mr. Dykert,

On Sunday, March 31, 2018 at approximately 4:30pm, a two-man crew working for The NACHER Corporation, Louisiana License LA-13065-L01 with a SPEC 150 Exposure Device Serial Number 2102, containing 77ci of Ir192, had an equipment malfunction which would not allow the Radiographer to return the source to the fully shielded position inside of the exposure device. The two-man crew consisted of two radiographers, Coby Fontenot and Drew Boudreaux, working at an offshore location for Fieldwood Energy at WD103F.

While making the first exposure, the crew noticed that the number of turns on their drive cables was more than normal. This was due to the guide tube quick connector becoming disconnected from the exposure device. Upon inspection of the quick connect the crew noted that the part was dirty and was causing the part to stick open. When the crew first set up their exposure it appeared that the guide tube was fully attached upon inspection. One of the crew members stated that they tugged on the connection lightly to verify that it was connected. When the crew noticed that the source was not in the fully shielded position, they noted that the survey meter was reading approximately 350mR/hr. The Lead Radiographer (Coby Fontenot) tried multiple times to retract the source into the exposure device until finally the survey meter reading dropped to approximately 150mR/hr. The source was still not in the fully shielded position, but was in the quick connection of the guide tube causing the readings to be lower due to the extra shielding from the connector. The source would not go back into the fully shielded position due to the angle of the guide tube and the exposure device outlet nipple. After a brief discussion one of the Radiographers (Drew Boudreaux) kept constant pressure on the drive cable trying to return the source into the shielded position. The second Radiographer (Coby Fontenot) ran to the exposure device and quickly lifted the source tube approximately 12-18 inches from where the source assembly was located inside the quick connector of the guide tube. As soon as Coby Fontenot began lifting the guide tube the source was immediately retracted into the shielded position by Drew Boudreaux. Once the source was in the shielded position the crew disconnected all equipment and called to report the incident to me at approximately at 5:45pm on that same day. I called in to report the event to the NRC call center at approximately 20:56 Eastern Time.

The crew was using direct reading Instadose Badges and were able to read their badges on site, immediately after the incident. Coby Fontenot showed a dose reading of 7mR, and Drew Boudreaux showed a reading below 1mR. The incident took approximately 1 minute to correct, from the time the crew noticed they had a problem, to the time that the source was returned to the shielded position. I calculated that Coby Fontenot received a

dose to his hand of approximately 630mR based off the source strength, and his hand being approximately 1 foot away from the source for approximately 5 seconds.

After talking with the crew I have come to the conclusion that the cause of the equipment failure was due to the condition of the Quick Connector of the guide tube. Once the crew broke down all of the equipment Drew Boudreaux thoroughly cleaned the connector, and it is now working as designed. Corrective actions taken will be a safety stand-down and bulletin sent to all radiography personnel on the importance of equipment inspections before and during use, daily maintenance of equipment, removing all from service immediately, when it is not operating as designed, and that any time a source is retracted into an exposure device by means not consisting of a drive cable and associated equipment, it is considered a source retrieval. A source retrieval can only be performed by a trained and approved individual, the area must be made safe by expanding boundaries and/or adding shielding where possible, and a notification must be made to the RSO prior to attempt of retrieval.

The two radiographers involved will receive additional training that will be documented, in the subject of maintenance and daily equipment inspections.

Regards,



David J. Boudreaux  
Radiation Safety Officer  
The NACHER Corporation