



## Incident Investigation Report

1. Location & Date of Incident: Certaineed plant site (Athens, GA) - November 25, 2012 at 10:15pm
2. Personnel involved: Karl Burger, Nathan Perry
3. Incident as reported:

Karl reported:

We were tearing down the six sets of equipment used on the forehearth heatup, which had been shut down on day shift and left for us to dismantle. All burners had been pulled from the holes and were laying on the floor with the gas lines disconnected from their supplies and the supplies plugged. While tearing down the burner in the cross channel, I made a big mistake.

Thinking that the AC box sitting closest to the gas supply with a hose still connected to it was dead and the gas shut off by day shift (the supply was a T with one leg plugged and one leg connected to a hose), I undid the QD connection. However, the gas line turned out to be live (it was connected to a lit burner in the Riser a few feet away), and as soon as it opened I knew I had made a big mistake. I yelled for Nathan to get me a wrench, as the immediate shutoff for that supply did not have a handle, and as he ran away, I tried to re-insert the hose into the dis-connect and couldn't do it (the gas supply was approximately 20 PSI). About that time, the cloud of gas ignited from the hot forehearth and went up in a ball of flame. I dropped to the catwalk surface and clawed my way away from the flame, keeping my entire body as flat against the catwalk as possible.

[Using this method, Karl was able to stay pretty well out of the flame until Nathan was able to shut off the main gas supply on the lower level. Nathan then helped him to a breakroom area where an iron worker and brick layer found ice packs for him and applied them to both sides of his head, and told him he looked like he needed to go to the hospital.]

Nathan reported:

About 10:15pm, he and Karl were tearing down the six sets of equipment. He was about 10 - 15 feet away from Karl working on dismantling one of the burner sets when he heard a rush of gas, looked up, and heard Karl shouting. He ran past Karl (though the gas) and the gas ignited just after he passed. He ran down one flight of steps to the main floor, down two more long flights and back across the floor to the main shutoff [Kari Evelyn later counted off approximately 100 paces in all to get from the incident site to the main gas shutoff]. After finding a handle, he shut off the main gas supply. He then ran back to where Karl was, saw he was basically okay, and went to secure the furnace burners and pulled the riser burner. He then plugged the valve that Karl had opened and turned off that supply with a wrench.

He shut down the excess burner blowers, damped back the burner air on both burners and then went to check on Karl. Karl was all about the job and was anxious to get things going again, saying he was alright but needed to get the burners re-lit. After agreeing with the brick layer and iron worker that Karl needed medical attention, they approached the plant contact on duty (he said he couldn't take Karl to the hospital because he was the only one there) and made arrangements for an iron worker to take Karl to the hospital at about 10:30pm.



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At this point, after checking with the plant to make sure there wasn't any unburnt gas present anywhere (the plant had re-lit the forehearth at this point), Nathan attempted to light the melter burners. He lit the first one on pilot at 10:40pm or so, and went around to the other side to light the second burner [which he was only able to light on pilot at that time also]. Mark Randle came in about this time.

Mark reported:

Mark was called by Karl after arriving at the local hospital. He promptly dressed and went to the plant where he found Nathan trying to light a melter burner. Mark was telling him that they needed to replace an AC box and get the riser going. At some point, Nathan said he couldn't take it and left – Mark thought he went to take a smoke but he never came back.

4. **Injuries:** Karl Burger sustained second degree burns to his face, ears, and the inside of both wrists. It was necessary for him to undergo surgery on 11/26/12 to have skin grafts applied to his face from ear to ear between his eyes and beard. Karl is expected to return to work on December 20, 2012.
5. **Property damaged:** Paint damage was sustained to the plant I-beam in the region where the fire occurred. A plant water hose may have also been damaged, TBC.
6. **Remedial Action:** Main gas was shut off, air purge was enacted, and open gas T at incident site was plugged and shut off.
7. **Prospective Long Term Solution/ Procedural Change:** It is standard practice for technicians to confirm definite isolation from any fuel source before opening a gas line, and this procedure has been reemphasized using this incident as an example of the seriousness surrounding this point.

Isolation must be confirmed via a visual verification that the immediate valve connection is closed after which the pressure gauge on the AC box must be checked and shown to read zero to ensure there is no pressure in the gas line.

This incident was the direct result of human error (the procedural violation was addressed with the employee and appropriate disciplinary action taken), but from an operational standpoint, Hotwork will look into various hose connection possibilities to aid in the prevention of future instances of this type of human error.

8. Reported by:

Kari Evely, December 12, 2012

Printed Name, Date & Signature

9. Reviewed By:



## Incident Investigation Report

J.C. GRAHAM JR.

12/12/12

Printed Name, Date & Signature

LARRY DRAKE

12/12/12

Printed Name, Date & Signature

10. Document Revisions:

11. Attachments: (Facility Report/Photographs/Medical report)

# FINAL

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