

CHAIRMAN Resource

From: Tom Gurdziel <tgurdziel@twcny.rr.com>
Sent: Tuesday, July 02, 2019 11:04 PM
To: Tim Echols
Cc: Bridget Frymire; CHAIRMAN Resource; Screnci, Diane; 'Ed Stronski'; Esberg, John R:(GenCo-Nuc); Miller, Eric
Subject: [External_Sender] Letter
Attachments: T. Fanning #33.docx

Hi Tim,

Glad to see Vogtle 3 & 4 progress. The letter will be mailed tomorrow.

Thank you,

Tom Gurdziel



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9 Twin Orchard Drive
Oswego, NY 13126
July 2, 2019

Mr. Thomas A. Fanning
Chairman, President, and CEO
Southern Company
30 Ivan Allen Jr. Blvd. NW
Atlanta, GA 30308

Dear Mr. Thomas A. Fanning:

I have just finished looking at the Vogtle construction photographs for May 2019 and have a few comments.

Formwork for Concrete

I don't understand what you are doing with formwork. Forms, made of metal or wood are used to contain fresh concrete. Then, when the concrete hardens, (and after a period of time for concrete strength to increase), the forms can be removed. On big jobs, you will make a number of pours before you get to the top. It is clear to me that you, (at Vogtle 3 and 4), remove ALL formwork when any pour is done. For instance, this is shown on slide 16 of 25 (at the upper right). Why are you doing this? This process costs the time of workers and crane time and transportation time and storage area space for forms that will be needed for the next pour above.

So now, when you are ready to begin the work for the next pour, you have to spend time of workers to go to the storage area and find the forms (still needed), load them on trucks or trailers to pull to the work area, take crane time to lift them back to when they were, then reconnect forms that already had been connected. Does that make any sense at all to you?

At the Pennsylvania job, we put up one side of the formwork, then provided the reinforcing steel from the other, open side. But first we had the surveyors lay out all the embedded plates and pipes and electrical penetrations to help the Ironworkers leave (reinforcing bar) space for them. Additionally, the formwork actually provides support for embedded items on that surface and that end of through wall penetrations like pipe and conduit. (Look at those embedment plates on the wall between those two circles of reinforcing bars on slide 16 of 25 for a perfect example of what I mean.)

(Slides that show a lack of concrete formwork, (at least to me), are slides 2, 4, 16, and 19 of 25.)

Weather Protection

Are the low pressure turbines shown in slide 11 of 25 going to get some sort of protection? Do they need to be periodically rotated a little?

Eliminating Excessive Scaffolding

Why is there a need for all that scaffolding in slides 8 and 12 of 25? At the Pennsylvania job we placed the concrete outside the steel plate for the containment as the containment was built. (If I remember correctly, each pour was about 5 foot 6 inches high and was done in lifts no more than 18 inches high at a time. We, (at United Engineers & Constructors), did a 180 degree arc every Friday.)

We “jumped” our concrete forms for the containment. That means we broke them loose from the hardened concrete and lifted them immediately up for the next pour. Additionally, at a distance of about 5 foot 6 inches lower, there was a scaffold which was attached to the form. This was provided to allow concrete masons to plug the form tie holes in the concrete and repair or clean up the outside surface of the recently poured concrete.

But, there is something more here. When the form(s) went up, so did the scaffold. That means the masons ONLY had as much time to repair the concrete surface as the scaffold provided access. If they needed more time, (and they seldom did), it was obtained while hanging from a crane.

Slide Text

On my home computer, it is almost impossible to read the captions for each slide. Can't the contrast be made greater?

Recommendation

When I was in the heavy construction industry, I was a member of the American Concrete Institute. They had at that time, and still have today, a publication, SP-4, “Formwork for Concrete”. I found it extremely informative and think that it might be worthwhile for you to have somebody read it and compare its recommendations/suggestions with what you have been doing. I realize that it may be too late to make any changes, but you would still be informed.

Yours truly,

Tom Gurdziel

The “Pennsylvania job” is, (was), Three Mile Island, Unit 2. Its containment, (which I helped build), successfully withstood an accident there.