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January 20, 2000

Mr. Louis Carson U.S. Nuclear Regulatory Commission Region IV 611 Ryan Plaza Drive, Suite 400 ArlIngton, TX 76011-8064

Dear Mr. Carson:

Thank you for taking the time to discuss the startup of Phase 2 of Fansteel's plant in Muskogee, Oklahoma. Your comments and expectations are being considered in our plant start up. Safe operations and the safety of the plant personnel and the surrounding area are of top priority to Fansteel. Based on a recently completed safety audit and a quarterly safety committee meeting, I believe Fansteel has demonstrated an excellent safety record. There has been only one lost time accident to personnel and that did not involve chemical or radiation concerns, monitoring of the perimeter shows no exceedences or upward trends, and there have been no significant concerns in the plant personnel radiation exposures.

We continue to make progress on Phase 1 operations in terms of safety, run time, and producing product. We have more room for improvement, and this is obviously the highest priority for Fansteel to continue to improve Phase 1 operations.

While we continue to improve performance for Phase 1, we need to begin training and testing for Phase 2. As Phase 1 operations improve, we need to move directly and rapidly Into Phase 2 because of materials balance and changing the long term characteristics of our feed material. As you know we currently recycle material from the Phase 1 process back to our CaF<sub>2</sub> feed ponds; this changes the composition of these ponds and adds new solids. The focus of our call to you was to discuss with the NRC how we plan to open Phase 2 in a safe, logical, and effective manner. We intend to open Phase 2 in stages to allow more time for effective operator training and to be prepared for safe plant operations.

Below I outline our plans for Phase 2, starting with Stage 2 since we use Stage 1 as Phase 1. I have included a flow diagram to illustrate our staged plan (not in fax). We have divided Phase 2 processes into three product cycles. The first is Metals Recovery, the second is Water Leach Solids, and the third is the addition of WIP. By dividing into stages, we can open smaller portions of the plant in sequence to focus on more effective operator training and safety and the effective operation of each portion of the plant:

STAGE 1: Phase 1, Current Operations

Continue to improve operator proficiency, safety, and run time.

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## STAGE 2 for Phase 2 (in sequence of events)

- 1) Classroom training for metals recovery (in progress).
- 2) Focus operator training on Metals Recovery.
- 3) Run water through process for operator training and mechanical testing.
- 4) Run solids through process, where appropriate, also for mechanical testing and operator training.
- 5) We will need to add H<sub>2</sub>SO<sub>4</sub> and NaOH (both chemicals on site and used in Phase One) to SX when we add water for testing and training on the SX. This avoids creating emulsions).
- 6) This stage involves:
  - no WIP
  - no new chemicals brought on site
  - no products produced.

## STAGE 3 - Add CaF<sub>2</sub> to Metals Recovery Sections

Stage 3 is the critical stage in that we add CaF<sub>2</sub> feed and chemicals to the Metal Recovery sections of the plant. The following conditions will be in place prior to starting Stage 3.

- 1) Phase 1 (produce HF and cryolite) is operating in safe and consistent manner.
- 2) Operators trained for Phase 1 process and Metals Recovery sections.
- 3) Fansteel prepared for an NRC inspection.
- 4) Notify NRC of plans to bring anhydrous ammonia on site.
- 5) After inspection and NRC review and comments, begin production from Metal Recovery portion of plant as well as Phase 1 sections.
  - Products will be produced.
  - No WIP will be added to process.

## STAGE 4- Sections of Plant that involve water leach of solids:

- 1) Classroom training of operators
- 2) Add water to equipment for operator training and mechanical performance.
- 3) Add solids to equipment for operator training and mechanical performance.
- 4) After 1 and 2 successfully completed, add water leach solids and chemicals
  - The only new chemical added on site is HCl.
  - Produce products.
  - No WiP will be added to process.

## STAGE 5 - Add WIP to system.

We will not add WIP until we are confident that the following training and conditions have been addressed:

- 1) Classroom training in WIP and remaining portions of plant.
- 2) Add water then solids (non-WIP) to remaining equipment for operator training

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and mechanical testing. No products produced. No chemicals added.

3) Fansteel prepared for site visit

4) Notify NRC prior to adding WIP.

5) Run system with WIP after NRC review and approval.

A tentative time frame for these stages is as follows.

Stage 1: Phase 1. In operation.

Stage 2: Beginning now with operator training.

Stage 3: Begin after NCR notification and inspection in mid March (anhydrous ammonia brought on site).

Stage 4: Begin training after Stage 3 starts; start adding water in mid- to late- April.

Stage 5: Begin after NRC notification, approximately June 1 (Addition of WIP).

I am faxing this letter to you, and I will be sending a copy of this letter and the flow diagram by mail. Thank you for your assistance. We believe this approach to be a safe and logical method to open the rest of the plant while we continue to work on improving Phase 1.

I will be out from January 24 to February 2, 2000. Please address any questions or comments to Monty while I am gone.

Sincerely,

Dr. Dennis J. LaPoint Acting General Manager

cc: M Mocniak; M Mooring; T Weyand

