Fansteel
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40-7580

January 4, 2000

SAAB Members

Dear Member:

Thank you to the members that attended the SAAB Meeting held on December 16, 1999. This was a busy time of year for everyone and you taking time out of your busy schedule to attend this meeting was greatly appreciated.

Transmitted with this letter is a draft copy of the minutes of that meeting and a copy of the attendance sheet. Please review this draft, and if you have any corrections or revisions, please contact Joe Harrick at (724) 733-3000.

Sincerely,

Bonnie S. Hefner

Bonnie S. Hefner

bsh

attach.

cc: Leslie Fields, NRC ✓
H. Astwood, NRC

NMSSDI Public

PDR ADOCK 04007580

Fansteel, Inc.
Site-Specific Advisory Board (SSAB) Meeting Minutes
December 16, 1999

The SSAB held a meeting on December 16, 1999, at 7:00 p.m. at the Muskogee Inn, Muskogee, Oklahoma. (See attached list of attendees.)

Mr. Joe Harrick, Facilitator, opened the meeting by welcoming everyone and giving a brief agenda. He requested that members of the audience hold their questions until the end of the meeting. The meeting was then turned over to John Hunter, Fansteel.

In May 1999, the NRC inspected the Fansteel (Muskogee) facility for operation readiness. Following the inspection, Fansteel was granted the approval to start. Start-up began the end of May. June 1, a little wind storm (in the form of a tornado) came along and put us out of business. (The final damage costs were $1.7 million.) Operations resumed the middle of July.

As discussed in earlier meetings, Fansteel will have several product lines; however, because of several factors, we are only running one product line at this time. Fansteel has shipped a small amount of product to an alumina smelter for testing as their feedstock.

The original Decommissioning Plan was submitted to the NRC in 1994, updated in 1996 and again in December 1998. In May 1999, the NRC asked Fansteel to split the Decommissioning Plan into two parts – restricted and unrestricted. The restricted portion is the part Fansteel wants to use as a containment cell. The SDMP Plan has been accepted. The plan for the cell was published in the Federal Register in September 1999. On the last day of the 30-day notice period, the Oklahoma State Attorney General entered a request for a hearing to the NRC. At this time, it is not known if the NRC will grant a hearing. The plans are under technical review by the NRC.

Mr. Harrick passed out a packet to everyone present concerning eight different sections regarding the decommissioning and containment cell. It was explained that the radioactive elements at the Fansteel facility are natural uranium and natural thorium, which are naturally occurring radioactive metallic elements present in small quantities throughout the Earth's crust. The uranium and thorium were present in small quantities in the ore and slags Fansteel used to extract the tantalum and columbium through an acid-digestion process and ended up in residues. These residues have been stored on site in containment ponds.

Exposure to high concentrations of uranium and thorium poses a health risk; however, the material in the containment cell will be below harmful levels and will not emit measurable levels.

Presently, there are about 95,000 tons of residue in storage in Fansteel's pond impoundments, which is about 93% of the total radioactive material at the site. The

remaining radioactive material is in the soils on site. Fansteel plans to process all of the material in the ponds, which will reduce the radioactive inventory at the site by 93%. Any residual radioactive material form the manufacturing process will be transferred off-site. The remaining 7% of radioactive material that is present in the soils will be removed and solidified, stabilized in cement and stored in a containment cell.

The containment cell is a mixture of soils removed from the site and cement. Only the contaminated soils and possibly building rubble which have been stabilized will be stored in the containment cell. The cell will then have a cover system consisting of a thick blanket of compacted soil, capped by a layer of rock that prevents surface erosion. The cap will then be vegetated and will be indistinguishable from the surrounding area.

Over a long period of time, a small quantity of water will infiltrate the cell and eventually leak through. Engineering estimates of the amount of leachate is 0.4 to 0.8 gallons per minute for the 12 acre area. The leachate may contain uranium and thorium, but at less than 3.5 picocuries per liter, which is well below the NRC criteria for groundwater. It is highly unlikely that the leachate will reach the Arkansas River because it probably would be absorbed by soil before it reaches groundwater. If it does leach, Fansteel has constructed an interception trench that is located between the cell and the river. Any leachate reaching the Arkansas River would be imperceptible because the average river flow is more than 10 to 20 million times the possible leachate flow.

The geologic history of the Arkansas River indicates that the river will not migrate onto the Fansteel property because the river is cut into the underlying bedrock. During the end of the last ice age, glacial melt waters caused a rise in the water level of the Arkansas River causing it to extend over the present Fansteel property. A repeat of this type of event is unlikely unless another ice age occurs. The Federal Emergency Management Agency documentation indicates that Fansteel is outside the 500-year floodplain.

In the event of a tornado, the stabilized soil will be below ground with a capping system on top. It may damage the coverage, but would not cause a release from the cell.

As required by NRC regulations, controls will be implemented on the cell. Many of these controls were discussed by the Board and included in the Decommissioning Plan. Some of these are: fencing, cover system, signs, groundwater monitoring and rad surveys. A permanent steward will be named prior to the finalization of the Decommissioning Plan. This will be an independent third party. The long-term caretaker expense, groundwater monitoring of wells, monitoring of the cell, mowing grass, fence repair, etc. has been taken into consideration and is included in the Financial Assurance presented to the NRC.

If the monolith is not approved, Fansteel would be unable to pay for off-site disposal of soils and public funds would be required to clean-up the site. There would also be a higher health risk to the public because it would have to be transported on public roads to an off-site disposal.

Next Mr. Harrick discussed dose criteria and ALARA. The containment cell with cover would have an estimated dose rate of 0.00027 millirem per year, based upon someone living **ON TOP OF** the cell. By comparison, cigarette smoking would be 1,300 millirem per year; medical x-rays, 53 millirem per year; and living in Muskogee, 340 millirem per year. It would be virtually impossible for the public to receive any significant dose from the monolith.

Fansteel has submitted a Financial Assurance Plan to the NRC for long-term care of the cell. The plan includes groundwater monitoring, repair of the containment cell and cover, and other maintenance items. It does not include air sampling after the cell is finished because there should not be any airborne contaminants. The entire plan will be funded by Fansteel.

The containment cell will blend in with the surrounding area. It is to be built in an area referred to as the "borrow pit" and will fill up that hole. When finished, the cell will have a protective fence around it and any public activity could take place in the vicinity with no health hazards to the community.

Next, questions were asked by the board members. Mr. Eaton wanted to know about the effect the cell would have on the railroad. Since the spur is about 800' short of the cell, it would have no effect.

Mr. Gwin wanted to know how the average flow of the Arkansas River was computed. The numbers came from the Corps.

Next there was discussion about an EIS. The NRC and Fansteel have just started laying out what the NRC wants Fansteel to do and what the NRC contractor will do. Fansteel has started gathering information for an EIS, it will be aimed at the restricted area.

It was determined that the SSAB will stay active.

Joe then asked the audience for questions.

Ms. Eldine Stevens, representing the Keetoowah Tribe, asked what type of radiation will be released into the atmosphere when Fansteel starts to dig up soils, compared to what there is now? Mr. Harrick stated that background air monitoring was done at the time of the Remedial Assessment (records available in the Fansteel offices) and monitoring is being done now.

Ms. Doris Gunn wanted to know what qualifications members of the SAAB have? Mr. Hunter responded that the only qualifications were to be members of the community and community leaders. Mr. Robinson informed her that at the first meeting they made it part of the minutes that they were there as laymen, with no technical knowledge, to make sure institutional controls are in place.

Mr. Thomas Harris stated his concerns about how long the cell will be monitored, by whom, and if there are other people auditing the technical information supplied by Fansteel and the NRC. The Oklahoma DEQ is involved in the monitoring activities, etc. and a governmental or sovereign nation is being considered as the caretakers.

There were no further questions, so Mr. Hunter thanked everyone for coming.

SIGN IN SHEET

Fansteel SSAB Meeting - 16 December 1999

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Elizabeth Ubinger	ESC	" "
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Thomas Lee Harris, Jr.	Muskogee CITIZEN	1218 Baltimore Muskogee, OK 74403
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