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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE COMMISSION

In the Matter of)	Docket No. 40-7580-MLA
)	
FANSTEEL, INC)	ASLBP No. 00-772-01-MLA
(Muskogee, Oklahoma Facility))	
)	

NRC STAFF'S RESPONSE TO FANSTEEL, INC.'S APPEAL FROM THE
PRESIDING OFFICER'S DECISION TO GRANT A HEARING

L. Michael Rafky
Counsel for NRC Staff

February 2, 2000

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INTRODUCTION

Pursuant to 10 C.F.R. § 2.1205(o), the NRC Staff (Staff) hereby files its response to the January 13, 2000 appeal by Fansteel, Inc. (Fansteel) of the Presiding Officer's Memorandum and Order dated December 29, 1999 (Order) granting the State of Oklahoma's request for a hearing regarding the license amendment requested by Fansteel to allow construction of a containment cell for soils containing residual activity at Fansteel's site in Muskogee, Oklahoma. For the reasons set forth below, the Staff submits that the State of Oklahoma was properly granted a hearing, as it successfully demonstrated both standing and injury-in-fact, as well as areas of concern germane to the proceeding, and requests the Commission uphold the Presiding Officer's Order except with respect to certain areas of concern admitted in error.

BACKGROUND

Fansteel is an NRC licensee, pursuant to 10 C.F.R. Part 40, conducting recovery of various metals, including tantalum, niobium, scandium, uranium and thorium, from process waste residues. These residues and contaminated soil at the Fansteel site are the result of past operations involving acid digestion of foreign and domestic ores and slag containing natural uranium and thorium. See "Notice of Consideration of Amendment Request for Construction of a Containment Cell at Fansteel Facility in Muskogee, Oklahoma and Opportunity for Hearing," 64 *Fed. Reg.* 49823 (September 14, 1999).

The onsite contaminated soil is located in Fansteel's Eastern Property Area¹ and consists of over 680,000 cubic feet of soil and soil-like material, e.g., building rubble, that is contaminated with natural uranium and thorium. Metal recovery operations are not feasible on this large volume of dilute, contaminated soil. *Id.* Fansteel has thus proposed to construct a containment cell (or a disposal cell) for this material at the southwest corner of its property. In accordance with the NRC's criteria for license termination contained in 10 C.F.R. § 20.1403, the containment cell area would, after completion of the cell, be released for restricted use and be subject to long-term monitoring, maintenance and surveillance. *Id.* at 49823-24.

The proposed containment cell is to be buried beneath the surface and will be comprised of a monolith and an engineered cover. The monolith will consist of solidified,

¹The decommissioning plan for this Area has already been approved by the NRC to allow for unrestricted release after remediation is completed.

contaminated soil and rubble. The solidification process involves mixing the contaminated materials with cement to form a solid, concrete-like monolith. *Id.* at 49824. The monolith is to be protected from the surface environment by means of an engineered cover comprised of layers of sand, gravel, riprap (crushed stone) and soil. *Id.*

On August 13, 1999, Fansteel requested the above-described amendment in a letter to the NRC, submitting a revised decommissioning plan (including an updated ALARA analysis), Remedial Design Report - Stabilization and Solidification of Above-Action-Level Soil and Construction of a Containment Cell, and a Treatability Study Report for Stabilization and Solidification of Above-Action-Level Soil. The NRC noticed receipt of the request, and the opportunity for a hearing, in a Notice published in the Federal Register on September 14, 1999. *See id.* In response to the Notice, the State of Oklahoma timely requested a hearing on Fansteel's requested license amendment. *See* "State of Oklahoma's Request for Hearing" (Oklahoma Request for Hearing), dated October 14, 1999. On October 29, 1999, Fansteel filed its "Answer in Opposition to the Request for Hearing Filed by the State of Oklahoma" (Fansteel Response), in which it made many of the same arguments that are now being presented to the Commission in the appellate portion of this proceeding. The Staff filed its Response to Oklahoma's Request for Hearing on November 5, 1999 (Staff Response), in which it concluded that Oklahoma had met the relevant tests for standing and injury-in-fact, and that Oklahoma had stated certain areas of concern germane to the proceeding.

On December 29, 1999, the Presiding Officer issued a Memorandum and Order (Granting the Request for Hearing) (Order), in which he found that Oklahoma had satisfactorily demonstrated standing, and described in sufficient detail germane areas of concern to allow for an informal hearing under Subpart L of 10 C.F.R. Part 2 of the Commission's regulations. On January 12, 2000, a prehearing conference was conducted including all parties to the proceeding, at which it was decided that the proceeding would be held in abeyance pending the Staff's completion of necessary safety and environmental reviews of Fansteel's application. *See Fansteel, Inc. (Muskogee, Oklahoma Facility)*, __NRC__, slip op. at 3 (January 13, 2000). On January 13, 2000, Fansteel appealed the Presiding Officer's Order to the Commission.

DISCUSSION

A. Standing

1. Legal Requirements for Standing

It is fundamental that any person or entity that wishes to request a hearing (or intervene in a Commission proceeding) must demonstrate that it has standing to do so. Section 189a of the Atomic Energy Act (AEA), 42 U.S.C. § 2239(a), provides in pertinent part that:

In any proceeding under this Act, for the granting, suspending, revoking or amending of any license... the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

In addition, pursuant to 10 C.F.R. § 2.1205(e), where a request for an informal hearing is filed by any person other than the applicant, in connection with a materials licensing action under Subpart L of 10 C.F.R. Part 2, the request for hearing must describe in detail:

- (1) The interest of the requestor in the proceeding;
- (2) How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in [§ 2.1205(h)];
- (3) The requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and
- (4) The circumstances establishing that the request for a hearing is timely in accordance with [§ 2.1205(d)].

Pursuant to 10 C.F.R. § 2.1205(h), the Presiding Officer must determine "that the specified areas of concern are germane to the subject matter of the proceeding" and "that the requestor meets the judicial standards for standing, and shall consider, among other factors -

- (1) The nature of the requestor's right under the Act to be made a party to the proceeding;
- (2) The nature and extent of the requestor's property, financial, or other interest in the proceeding; and
- (3) The possible effect of any order that may be entered in the proceeding upon the requestor's interest."

The Commission has long held that contemporaneous judicial concepts of standing will be applied in determining whether a petitioner for leave to intervene has sufficient interest in a proceeding to be entitled to intervene as a matter of right under Section 189a of the Atomic Energy Act. *See, e.g., Metropolitan Edison Co. (Three Mile Island Nuclear Station,*

Unit No. 1), CLI-83-25, 18 NRC 327, 332 (1983); *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613 (1976); *Envirocare of Utah, Inc.* (Byproduct Material Waste Disposal License), LBP-92-8, 35 NRC 167, 172 (1992); *Babcock and Wilcox* (Apollo, Pennsylvania Fuel Fabrication Facility), LBP-93-4, 37 NRC 72, 80-81 (1993); *Sequoyah Fuels Corp.* (Source Material License No. SUB-1010), LBP-91-5, 33 NRC 163, 164-65 (1991); *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-89-30, 30 NRC 311, 312-13 (1989). These judicial standards are applicable to informal hearings held pursuant to Subpart L. *Chemetron Corp.* (Bert Avenue, Harvard Avenue, McGean-Rohco Sites, Newburgh Heights and Cuyahoga Heights, Ohio), LBP-94-20, 40 NRC 17, 18 (1994).

To show an interest in the proceeding sufficient to establish standing, the requestor must show that the proposed action will cause "injury in fact" to its interest and that its interest is arguably within the "zone of interests" protected by the statutes governing the proceeding. *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 32 (1993); *Three Mile Island, supra*, 18 NRC at 332-33; *Pebble Springs, supra*, 4 NRC at 613-14. In proceedings before the NRC, the petitioner must establish an injury to its public health and safety interests protected by the AEA or to its environmental interests protected by the National Environmental Policy Act (NEPA). *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear station, Unit 2), LBP-83-45, 18 NRC 213, 215 (1983); *see also Northern States Power Co.* (Pathfinder Atomic Plant),

LBP-89-30, 30 NRC 311, 312-13 (1989); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-91-23, 33 NRC 430, 432, 437 (1991); and *Babcock and Wilcox* (Apollo, Pennsylvania Fuel Fabrication Facility), LBP-93-4, 37 NRC 72, 80 (1993).

Further, it has been held that in order to establish standing, the petitioner must establish that s/he personally has suffered or will suffer “distinct and palpable” harm that constitutes injury in fact, that the injury can fairly be traced to the challenged action, and that the injury is likely to be redressed by a favorable decision in the proceeding. *Dellums v. NRC*, 863 F.2d 968, 971 (D.C. Cir. 1988); *Vogle, supra*, CLI-93-16, 38 NRC at 32; *Babcock and Wilcox, supra*, LBP-93-4, 37 NRC at 81; *Envirocare, supra*, LBP-92-8, 35 NRC at 173. See also *Warth v. Seldin*, 422 U.S. 490, 504 (1974). A petitioner must have a “real stake” in the outcome of the proceeding in order to establish injury in fact for standing. *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), LBP-79-10, 9 NRC 439, 447-48 (1979). While the petitioner’s stake need not be a “substantial” one, it must be “actual,” “direct” or “genuine.” *Id.* at 448.

In a proceeding involving a materials license, “a petitioner who wants to establish ‘injury in fact’ for standing purposes must make some specific showing outlining how the particular radiological (or other cognizable) impacts from the . . . materials involved in the licensing action at issue can reasonably be assumed to accrue to the petitioner.” *Atlas Corp.* (Moab, Utah Facility), LBP-97-9, 45 NRC 414, 426 (1997), citing *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 247-48 (1996).

The Supreme Court recently reiterated the “irreducible constitutional minimum” requirements for standing -- that the plaintiff suffer an “injury in fact” which is “concrete and particularized and . . . actual or imminent, not conjectural or hypothetical,” that there is a causal connection between the alleged injury and the action complained of, and that the injury will be redressed by a favorable decision. *Bennett v. Spear*, 520 U.S. 154, 167-68, 117 S.Ct. 1154, 1163-64 (1997). In addition, the petitioner must meet the “prudential” standing requirement that the complaint must arguably fall within the “zone of interests” of the governing law. 117 S.Ct. at 1167. *See also Vogtle, supra*, 38 NRC at 32; *Three Mile Island, supra*, 18 NRC at 332; and *Pebble Springs, supra*, 4 NRC at 613-14. It is not necessary that every injury in fact be sufficiently concrete to satisfy these requirements; it is enough if some of the injuries claimed are, or result in, clearly adverse effects on the petitioner. *Kelley v. Selin*, 42 F.3d 1501, 1508 (6th Cir. 1995), citing *Duke Power Co. v. Carolina Envtl. Study Group*, 438 U.S. 59 (1978).

2. Oklahoma has Sufficiently Demonstrated Standing

In its appeal, Fansteel argues that Oklahoma should not be permitted to intervene as a party to this proceeding because it has not demonstrated injuries in fact or that such injuries can be redressed in this proceeding. *See* Fansteel Appeal at 7-15. Fansteel argues that Oklahoma’s alleged injuries are either too speculative, too generalized, or both. *Id.* at 7. For instance, Oklahoma has asserted to the Presiding Officer that the containment cell will harm the citizenry and environment of the state if radioactivity from the cell is released into

the environment, including the nearby Arkansas River. Oklahoma Request for Hearing at 17. Fansteel has characterized Oklahoma's claim as "conjectural and hypothetical." Fansteel Appeal at 7. Fansteel argues that Oklahoma does not specify the amount of radioactivity that will be placed in the cell and notes the allegedly low concentration of uranium and thorium that the cell will contain. *Id.* at 7-8. Similarly, Oklahoma's other asserted injuries in fact² are uniformly dismissed as well by Fansteel due to lack of detail in such areas as levels of radioactive releases from the cell or how specifically the long-term maintenance budget is inadequate. Fansteel Appeal at 8-11.

The Staff has reviewed Oklahoma's Request for Hearing and concludes that Oklahoma has sufficiently demonstrated cognizable interests which could be affected by this proceeding, including its interest as a State government in protecting the health and safety of its citizens, and its interests in property in the immediate vicinity of the containment cell which could be affected by granting the requested amendment. The Staff also believes that injury in fact has been satisfactorily established, as Oklahoma has alleged that the radioactive material to be stored in the cell could harm the Arkansas River, which is both hydrologically and geologically connected to groundwater beneath the Fansteel facility, as well as those

²These include Fansteel's inadequate long-term maintenance and monitoring budget as proposed in the Restricted Release Decommissioning Plan (RRDP); a decrease in tourism following placement of radioactive waste in proximity to the Arkansas River; the barring of the restricted release area from all future use; and the release of radioactivity which will necessitate remediation, including the use of heavy vehicles causing injury to nearby roads. Oklahoma Request for Hearing at 17-22.

Oklahoma citizens who rely upon the river for consumption or other uses. *See* Oklahoma Request for Hearing at 17-19.

In its appeal, Fansteel is in essence arguing that Oklahoma has not proven its case, and therefore it should be barred from intervening. However, at this early stage of the proceeding Oklahoma's statement of areas of concern need only warrant the next step, which is submission of written presentations pursuant to 10 C.F.R. § 2.1233. *See Combustion Engineering, Inc.* (Hematite Fuel Fabrication Facility), LBP-89-23, 30 NRC 140, 147 (1989). The required level of detail in describing areas of concern is not extensive because it would be inequitable to require Oklahoma to prove all its concerns without having access to the hearing file. The areas of concern are intended to provide the minimal information needed to ensure that Oklahoma desires to litigate issues germane to this proceeding, and therefore should be allowed to take the additional step of making a full written presentation under Section 2.1233. "Statement of Consideration, Informal Hearing Procedures for Material Licensing Adjudications," 54 *Fed. Reg.* 8269, at 8273; *see also Sequoyah Fuels Corporation*, LBP-94-39, 40 NRC 314, 316 (1994). Fansteel should not be permitted to prevent Oklahoma from litigating its areas of concern on the grounds that they have not been proven on the merits.

A presumption of injury in fact for standing based on geographic proximity may be applied in non-power reactor cases where the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences. *Georgia Institute*

of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116 (1995), citing *Sequoyah Fuels Corp.* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994); and *Armed Forces Radiobiology Research Institutes* (Cobalt-60 Storage Facility), ALAB-682, 16 NRC 150, 153-54 (1982). In this case, the proposed disposal cell has an obvious potential for offsite radiological or environmental effects on Oklahoma's interests because the cell will be in close proximity to State Highway 165 and the Arkansas River, as well as two state-operated wildlife refuges. See Oklahoma Request for Hearing at 10-12.

In his opinion granting Oklahoma's hearing request, the Presiding Officer agreed, stating that the injuries asserted by Oklahoma, many of which are described above, "are sufficient to establish an injury-in-fact and . . . fall within the interests protected by the [AEA] and NEPA." *Fansteel, Inc.* (Muskogee, Oklahoma Facility), LBP-99-47, __NRC__, slip op. at 8 (December 29, 1999). The Presiding Officer went on to note that "a determination that the State's asserted injury is fairly traceable to the proposed action 'is not dependent on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible.'" *Id.* (citing *Sequoyah Fuels Corp.*, *supra*, at 75). The Presiding Officer found that standard to be met in the instant case.

Rulings of Presiding Officers on standing are given substantial deference and are generally upheld, absent an error of law or abuse of discretion. *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 118 (1998). Neither exception

is present herein, and the Presiding Officer's conclusion that Oklahoma has satisfactorily demonstrated both standing and injury in fact should be upheld.

B. Redressability

In its appeal, Fansteel argues that, contrary to the Presiding Officer's determination in the Order, Oklahoma has failed to show that its alleged injuries could be redressed by the denial of Fansteel's requested license amendment. Fansteel argues that if the RRDP is not approved, Fansteel's sole remaining option would be to decommission the relevant portion of its property for unrestricted release. However, Fansteel claims its financial resources are limited, and therefore it cannot afford to dispose of the contaminated soil in question offsite. Fansteel Appeal at 13-14. Indeed, Fansteel argues that reallocating its resources would place into question the company's ability to continue with unrestricted release decommissioning, and the end result would be that the site would remain in its current condition, with radionuclides onsite. As a result, Oklahoma's alleged injuries would remain, and redressability would not occur. *Id.*

In its Request for Hearing, Oklahoma indicated that its alleged injuries could be redressed depending on whether the RRDP as submitted was "granted, denied, or conditioned." *Id.* at 24. It is possible, for instance, that if the license amendment is denied, Fansteel would then determine that it does in fact have the financial resources to accomplish offsite disposal of contaminated soil. Similarly, if the RRDP was approved subject to certain modifications, Oklahoma could easily conclude that its injuries had been redressed such that

the safety concerns which led it to request a hearing had been satisfactorily resolved. The Presiding Officer found here as well that Oklahoma's alleged injuries "are all redressible by a Board decision favorable to the State's position such as the denial of the request for restricted release decommissioning." *Fansteel, Inc., supra*, at 8. If one possible outcome of the proceeding would redress the petitioner's alleged injury, redressability has been demonstrated. *Sequoyah Fuels Corporation and General Atomics (Gore, Oklahoma Site)*, CLI-94-12, 40 NRC 64, 77 (1994). The Staff therefore believes that Oklahoma has clearly met the redressability requirement necessary to be granted a hearing on Fansteel's proposed license amendment.

C. Areas of Concern

Where a request for hearing is filed by any person other than the applicant pursuant to Subpart L of 10 C.F.R. Part 2, the request "must describe in detail -- the requestor's areas of concern about the licensing activity that is the subject matter of the proceeding." 10 C.F.R. § 2.1205(e). The Presiding Officer must determine "that the specified areas of concern are germane to the subject matter of the proceeding." 10 C.F.R. § 2.1205(h).

In this proceeding, the Presiding Officer admitted all six of Oklahoma's areas of concern as germane to the proceeding. *Fansteel, Inc. (Muskogee, Oklahoma Facility)*, LBP-99-47, __ NRC __, slip op. at 9-13 (December 29, 1999). While the Staff agrees with Fansteel with regard to part or all of three areas of concern that the Staff believes were admitted in error, it also submits that the other three areas were properly admitted, and that

the Commission should uphold the Presiding Officer's Order with respect to those three areas of concern, and with respect to parts of the other three areas of concern as set out below.

In its appeal, Fansteel argues that Oklahoma has not identified any areas of concern that are germane to this proceeding. Fansteel Appeal at 14-35. It notes the Commission's need for "detailed descriptions of the petitioner's positions on issues going to both standing and the merits." Fansteel Appeal at 16 (citing, *inter alia*, *Shieldalloy*, 1999 NRC LEXIS 53, at *6). However, Fansteel does not note, as the Presiding Officer does in his December 29 Order, that the standard for the level of description of areas of concern in informal licensing adjudications is that it "need not be extensive but must fall generally within the scope of the hearing." *Id.* at 9 (citing *Babcock and Wilcox* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-4, 39 NRC 47, 52 (1994)). As the Presiding Officer correctly notes: "[t]his standard differs from the standard that governs the admission of contentions in formal hearings in that the informal standard is easier to satisfy." *Id.* (citing *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, New Mexico), LBP-98-9, 47 NRC 261, 280 (1998)). And as the Staff discusses above, the required level of detail for stating areas of concern is not extensive because it would be inequitable to require the petitioner to prove all its concerns without access to the hearing file. The areas of concern are intended only to provide the minimal information needed to ensure that the petitioner desires to litigate germane issues, and therefore should be allowed to make a full written

presentation pursuant to 10 C.F.R. § 2.1233. *Statement of Consideration*, “Informal Hearing Procedures for Materials Licensing Adjudications,” 54 *Fed. Reg.* 8269, 8273 (February 28, 1989). As described in detail below, the Staff submits that Oklahoma has proffered certain areas of concern in sufficient detail to warrant their being found germane to the proceeding. However, this portion of the Staff’s discussion begins with an area of concern that was improperly admitted.

1. Applicability of 10 C.F.R. § 20.1403

In its Request for Hearing, Oklahoma argued that the Fansteel site was ineligible for decommissioning for restricted release because the NRC did not intend 10 C.F.R. § 20.1403 to apply to the Fansteel site. Oklahoma asserted that in fact the rule was intended to apply only to those facilities where radioactive contaminants will decay to unrestricted dose limits within a finite period of institutional control. Oklahoma stated its belief that by contrast, the radioactive contaminants at the Fansteel site would remain potentially hazardous for billions of years. Oklahoma Request for Hearing at 27-28 (citing the *Statement of Consideration*, “Radiological Criteria for License Termination,” 62 *Fed. Reg.* 39058, 39069 (July 21, 1997)).

The referenced language does not restrict application of Section 20.1403 to sites contaminated with short-lived nuclides, but only identifies the presence of short-lived nuclides as one example of the situations in which unrestricted decommissioning could result in net public harm. *Statement of Consideration, supra*. The explicit language of 10 C.F.R.

§ 20.1403 does not limit its application to sites contaminated with short-lived nuclides, and in fact the rule's application was explicitly contemplated for sites contaminated with long-lived nuclides such as uranium,³ including NRC Site Decommissioning Management Plan (SDMP) sites such as Fansteel.⁴ Moreover, Oklahoma's attack on Section 20.1403 is barred by 10 C.F.R. § 2.1239(a), which forbids challenges of NRC regulations in Subpart L informal adjudications (subject to an exception not present here). Therefore there is no regulatory basis upon which to litigate Oklahoma's alleged area of concern, thus rendering it nongermane. *Babcock and Wilcox Company* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217-18 (1994).

Fansteel in its appeal makes similar arguments, noting that the plain language of Section 20.1403 was in direct contradiction to Oklahoma's alleged area of concern, as it did not limit the regulation's application to sites contaminated with short-lived nuclides, and also that such a challenge to an NRC regulation was barred by 10 C.F.R. § 2.1239(a). See *Fansteel Appeal* at 16-21.

³"In a limited number of cases, in particular those involving large quantities of uranium and thorium concentration, the presence of long-lived nuclides at decommissioned sites will continue the potential for radiation exposure...More stringent institutional controls will be required in these situations..." *Statement of Consideration, supra*, at 39070.

⁴One of the considerations in adopting 10 C.F.R. § 20.1403 was that removal and transport of soil to reduce the Total Effective Dose Equivalent (TEDE) to that specified for unrestricted release, or 25 millirem (mrem) per year, is not cost-effective for facilities with extensive soil contamination, such as those which have been placed in the SDMP. *Id.* at 39065.

The Presiding Officer below held that the area of concern was germane, and that it merely "raise[d] a garden variety issue of legal interpretation." *Fansteel, Inc., supra*, at 10.⁵ The Staff requests that, in light of the clear and unambiguous language of both 10 C.F.R. §§ 20.1403 and 2.1239(a), the Commission reverse the Presiding Officer's finding in the instant proceeding and hold that the applicability of 10 C.F.R. § 20.1403 to Fansteel's restricted release decommissioning is not litigable as a matter of law, and thus that Oklahoma's first area of concern is nongermane.

2. ALARA

In its request for hearing, Oklahoma raised a second area of concern by alleging that Fansteel's proposed license amendment did not demonstrate, as required by 10 C.F.R. § 20.1403(a), either that residual levels of radioactivity are as low as reasonably achievable (ALARA) or that further reductions in residual radioactivity necessary to comply with 10 C.F.R. § 20.1402 (unrestricted use) would result in net public or environmental harm. Oklahoma sought to demonstrate that under no circumstances would decommissioning for unrestricted release result in net public or environmental harm. Oklahoma Request for

⁵The Presiding Officer's Order, however, failed to take note of an opinion, issued two weeks prior, on the identical area of concern raised in a similar ongoing case involving an RRDP license amendment being sought by Sequoyah Fuels, Inc. In his Memorandum and Order granting the State of Oklahoma's Request for Hearing on that license amendment, the Presiding Officer in that case found that while the area of concern may well be germane, as a matter of law the issue was not litigable and would not be admitted. *See Sequoyah Fuels Corporation (Gore, Oklahoma Site Decommissioning)*, LBP-99-46, __ NRC __, slip op. at 17-19 (December 16, 1999). The Presiding Officer in that case noted that the plain language of the rule did not bar its use in restricted release decommissioning situations. *Id.* at 18.

Hearing at 29-32. Oklahoma challenged much of Fansteel's ALARA analysis, including figures for population density, disposal cell area and monetary discount figures, and claimed that the entire analysis was too simplified to be of analytical value. *Id.*

The Staff supports inclusion of this area of concern as germane to the proceeding. *Atlas Corporation* (Moab, Utah Facility), LBP-97-9, 45 NRC 414, 423 (1997). Alleged failures to meet applicable requirements have been held to be germane areas of concern. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 281-82 (1998).

Fansteel argues on appeal that this area of concern is not germane because in fact its ALARA analysis is consistent with NRC guidance and demonstrates compliance with 10 C.F.R. § 20.1403(a). Fansteel Appeal at 21-22. However, as discussed above, at this stage of the proceeding the requestor's statement of the areas of concern pursuant to Section 2.1205(e) must only warrant the next step, which is submission of written presentations pursuant to Section 2.1233. *See Combustion Engineering, Inc.* (Hematite Fuel Fabrication Facility), LBP-89-23, 30 NRC 140, 147 (1989). Merits-based arguments are premature at this stage of the proceeding.

In contrast to Subpart G rules governing the admission of contentions in formal adjudications, areas of concern require less detail and less specificity than contentions, and Subpart L requestors do not have to put forth a comprehensive exposition in support of the issues they wish to litigate. *Babcock and Wilcox* (Apollo, Pennsylvania Fuel Fabrication

Facility), LBP-92-24, 36 NRC 149, 153-54 (1992)⁶. The Staff therefore requests that the Commission uphold the admission of this area of concern as germane to the proceeding and dismiss this portion of Fansteel's appeal.

3. Failure of the RRDP to Demonstrate Compliance with 10 C.F.R. § 20.1403(e)

In its request for hearing, Oklahoma raised a third area of concern alleging that the RRDP did not demonstrate compliance with 10 C.F.R. § 20.1403(e) in that Fansteel did not show that, if institutional controls were no longer in effect, the TEDE from residual radioactivity distinguishable from background to the average member of the critical group is ALARA, and not in excess of 100 mrem per year, or 500 mrem per year under certain circumstances. Oklahoma Request for Hearing at 33-34. Oklahoma asserted that errors in Fansteel's modeling rendered it unsubstantiated, particularly in the event that no cap existed on the disposal cell, and where Fansteel's long-term maintenance budget as proposed is inadequate. *Id.*

As the Presiding Officer noted with regard to this area of concern, "a determination of the admissibility of an area of concern is not a determination of the merits and Fansteel's detailed arguments go to the merits of the issue, not ... germaneness." *Fansteel, Inc., supra*, at 11. In its appeal, Fansteel claims that the lack of specific and detailed allegations "is fatal" to Oklahoma's allegation, and cites to the recent *Sequoyah Fuels* decision, claiming that the

⁶In the concurrently running Sequoyah Fuels RRDP proceeding, this identical area of concern was also admitted as germane, on similar grounds. *See Sequoyah Fuels, supra*, at 20-21.

Presiding Officer in that case found the similar area of concern nongermane due to Oklahoma's "failure to specify what ... aspects of the model fail to adhere to EPA standards." Fansteel Appeal at 23-24 (quoting *Sequoyah Fuels*, LBP-99-46, __ NRC __, slip op. at 23 (December 16, 1999)). Unfortunately for Fansteel, the area of concern being discussed in this quoted portion of the *Sequoyah Fuels* opinion, while related to alleged errors in TEDE modeling, is not the same one at issue here. The cited section of the *Sequoyah Fuels* opinion discusses acceptability of Sequoyah Fuels' TEDE modeling, *not* compliance with 10 C.F.R. § 20.1403(e). That latter area of concern is discussed by the Presiding Officer in *Sequoyah Fuels* separately, and while the discussion indeed refers back to the area of concern devoted to TEDE modeling, the Presiding Officer found the latter area of concern in part⁷ to be germane to the proceeding, and so admitted it. *Sequoyah Fuels*, *supra*, at 24-25. The Staff therefore requests that the Commission hold that this area of concern - failure to demonstrate compliance with Section 20.1403(e) - is germane to the proceeding.

4. Institutional Control and Long-Term Custodianship

Oklahoma's fourth area of concern can be divided into two independent sub-areas: First, that Fansteel's RRDP fails to adequately demonstrate legally enforceable controls and

⁷In the *Sequoyah Fuels* case, Oklahoma raised this area of concern in part with regard to groundwater pathways. With that qualification, the Staff in this case supported inclusion of the area of concern as germane, and the Presiding Officer agreed. See "NRC Staff's Answer to State of Oklahoma's Supplemental Request For Hearing," at 19-20 (October 1, 1999); and *Sequoyah Fuels*, *supra*, at 23-25.

long-term custodianship because the proposed controls are insufficiently durable to ensure that the TEDE from residual radioactivity distinguishable from background to the average member of the critical group will not exceed 25 mrem per year, as required by 10 C.F.R. § 20.1403(b). Oklahoma Request for Hearing at 34-35.

Oklahoma's second sub-area of concern is that the RRDP does not identify a long-term custodian for the Fansteel site, and fails to adequately map out long-term custodial care because disposal cell maintenance is not adequately addressed. *Id.*

With regard to the first sub-area, the Staff notes that the Commission never intended to require proof that institutional controls be effective for the one thousand-year period specified by 10 C.F.R. § 20.1401(d).⁸ Furthermore, durable institutional controls are required by 10 C.F.R. § 20.1403(e)(2)(ii) only if residual radioactivity at the site has been reduced so that, if those controls were no longer in effect, the TEDE from residual radioactivity distinguishable from background would be more than 100 mrem per year and not exceed 500 mrem per year. Oklahoma in its hearing request never substantively asserted that the TEDE could or will be more than 100 mrem per year or that Section 20.1403(e)(2) applied. For that reason, the Staff believes that there is no regulatory basis upon which to litigate this alleged concern, *Babcock and Wilcox Company* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217-18 (1994), and

⁸"Rather, institutional controls should be established by the licensee with the objective of lasting 1000 years... Having done this, the licensee would be expected to demonstrate that the ...controls could reasonably be expected to be effective into the foreseeable future." 62 *Fed. Reg.* 39058, 39070.

that Oklahoma provided insufficient information to determine that durability of institutional controls is an area of concern germane to this proceeding. *Sequoyah Fuels Corporation, supra*, at 316.

Fansteel also agrees that this area of concern is not germane, making similar arguments to those presented by the Staff above, including that the durable control requirements of Section 20.1403(e)(2)(ii) do not apply to the Fansteel site, and that Fansteel is not required to prove that its institutional controls will be effective for the one thousand-year period specified in Section 20.1403(d). *See* Fansteel Appeal at 24-30.

With regard to the second sub-area of concern, the Staff notes that Fansteel has proposed physical controls for that portion of its site to be decommissioned under restricted release, including a fence and periodic monitoring. *See* RRDP, Containment Cell Portion, Section 2.1.2.4, "Institutional Controls" (August 1999). Such controls are necessary to protect public health and safety and to alert the custodian to any necessary repairs on the containment cell or the controls themselves. However, physical controls and their maintenance can be used to meet the 10 C.F.R. § 20.1403(b) requirement for legally enforceable institutional controls only when such controls are used in combination with an instrument that permits legal enforcement of the physical controls. *See* Draft Regulatory Guide DG-4006, "Demonstrating Compliance with the Radiological Criteria for License Termination," Section 4 at 32. Fansteel has proposed use of a custodian to perform the maintenance and control function after the license is terminated, but has not yet identified

the custodian or provided a copy of the contract with the custodian to the Staff for its review, both of which must be accomplished prior to final approval of the requested license amendment. RRDP at Section 1.2. Accordingly, the Staff is unable at this time to determine whether the physical controls are legally enforceable or whether the site will meet the dose limit requirements of Section 20.1403. The Staff believes that Oklahoma's area of concern is relevant and, thus, germane to this proceeding.

Fansteel argues that neither NRC regulations nor guidance require it to identify the custodian pursuant to 10 C.F.R. Part 20, citing to Section 20.1403(c) references to "an independent third party" and "a governmental custodian." Fansteel also asserts that practically speaking, it will be highly difficult to procure needed custodial services prior to NRC approval of the RRDP. Fansteel Appeal at 28. However, Fansteel's interpretation of both agency regulations and guidance is far from dispositive, and should not be allowed to shape the final Commission position on this matter.

Complicating final Commission resolution of this area of concern is that in ruling on Oklahoma's asserted area of concern, the Presiding Officer in this proceeding inappropriately conflated both sub-areas into one. This is made clear by his quoting two statements from page 13 of the Staff's Response⁹ which concern only failure to identify a long-term custodian. *See Fansteel, Inc., supra*, at 11-12. Nowhere in the Presiding Officer's

⁹Both statements discuss the Staff being unable to determine whether physical controls are legally enforceable, and whether public health and safety will be assured, due to the lack of information regarding the identity of the custodian and the final custodial contract.

discussion of this area of concern is there found an examination of the Staff's and Fansteel's assertions that no regulatory basis exists to admit the concern regarding TEDE from residual radioactivity not exceeding 25 mrem per year. The Staff therefore requests that the Commission reverse the ruling of the Presiding Officer with regard to the first sub-area of concern discussed above, and uphold the Presiding Officer's determination that the second sub-area of concern is properly admitted as germane to this proceeding.

5. Alleged Failure to Comply with NRC Financial Assurance Requirements

Oklahoma's fifth area of concern alleged that Fansteel's RRDP violated the financial assurance requirements of 10 C.F.R. § 20.1403(c), as it was possible that annual expenses would not be covered by interest alone on the trust fund corpus due to the fact that no provision was made for numerous necessary expenses of long-term ownership, including the following: (1) repair of the disposal cell; (2) replacement of the disposal cell; (3) repair and replacement of the disposal cell cap; (4) short- and long-term testing, analysis and monitoring of disposal cell performance; (5) repair and replacement of groundwater monitoring systems; (6) future remediation, decontamination, decommissioning and additional cleanup in the event radiological criteria are not met and residual radioactivity poses a significant threat to public health and safety; (7) collection and remediation of leachate from the disposal cell; (8) engineered barrier replacement; (9) emergency planning and training; (10) site security; (11) funding for enforcement of institutional controls; (12) the costs of preventing the migration and flow of the Arkansas River into the disposal cell;

and (13) unforeseen problems, acts of God and other *force majeure* events. See Oklahoma Request for Hearing at 36-38.

In the Presiding Officer's December 29, 1999 Order granting Oklahoma's request for hearing, this area of concern was admitted as germane in its entirety, with no distinction made among the various items within the larger area of concern. See *Fansteel, Inc., supra*, slip op. at 12. The Staff, for the reasons set forth below, requests the Commission uphold the Presiding Officer's Order with respect to certain items and reverse it with respect to others.

The Staff has examined each of the above items in turn, and concludes that with respect to items (1)¹⁰, (3), (5), (6)¹¹, (7), (10) and (12)¹², Oklahoma stated an area of concern germane

¹⁰Closely related to this item, Oklahoma alleges another area of concern (discussed in section 6 below) in that the disposal cell is inadequate to prevent groundwater contamination beneath the Fansteel site because the RRDP proposes inadequate funding for maintenance and repair of the disposal cell cap, thus amplifying leaching of contaminants from the cell. Oklahoma Request for Hearing at 39. The Staff asserts that this area of concern is germane as it relates to a reasonable and necessary expense of decommissioning.

¹¹The Staff considers this area of concern repetitive of item (13) - unforeseen problems - and that item (13) likewise states an area of concern germane to the challenged action. See p.28 *infra*.

¹²With regard to this alleged area of concern, the Staff cannot state at this early stage of its Technical Review whether erosion migration into the Fansteel site is a possible eventuality. It is not possible at this time, therefore, to state that the alleged area of concern is not germane to this proceeding. Accordingly, Oklahoma here states a germane area of concern. *Babcock and Wilcox* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217 (1994).

to the proceeding, as the Staff's Technical Review will consider whether the RRDP and custodial contract make adequate provisions for funding these expenses.¹³

The Staff also believes, with respect to the other items listed, that in most cases the particular item is not properly admissible as an area of concern. For instance, with regard to item (2), the Staff does not believe that replacement of the disposal cell is either a required or reasonably anticipated expense. As the cell is, in part, the collected contaminated material from the Fansteel site, there is no rational reason to replace the entire cell. Therefore this item should not have been admitted as an area of concern germane to this proceeding.

With regard to item (4), the Staff's practice in Technical Reviews has been to require, as a reasonable and necessary expense, funding to cover two years of monitoring of disposal cell performance to determine if the cell will contain waste such that the requirements for termination will be met, and also to require that detected inadequacies be fixed, before license termination is permitted. Inadequate funding for the proposed activity has been held to be an area of concern germane to proposed license activity. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 282 (1998).

¹³The Staff also notes the aforementioned *Sequoyah Fuels* opinion, wherein that Presiding Officer, discussing a virtually identical area of concern also raised by the State of Oklahoma, admitted certain sub-areas as germane and ruled others nongermane in exactly the fashion requested by the Staff in this proceeding. See *Sequoyah Fuels, supra*, at 28-31; Staff Response at 14-18. The one exception is with regard to item (12) here, which was raised in the *Sequoyah Fuels* proceeding as part of that proceeding's ninth area of concern and admitted as germane. See *Sequoyah Fuels, supra*, at 35-36.

However, long-term monitoring is required in restricted release decommissioning only when, should institutional controls no longer be effective, the TEDE from residual activity at the site distinguishable from background to the affected group is greater than 100 mrem per year and less than 500 mrem per year. 10 C.F.R. § 20.1403(e)(2)(iii). Oklahoma did not substantively assert that the TEDE could or will be more than 100 mrem, or that long-term monitoring is required by 10 C.F.R. § 20.1403(e)(2)(iii). Accordingly, the Staff submits that Oklahoma has provided insufficient information to determine that inadequate funding for long-term monitoring of disposal cell performance is a germane area of concern. *Sequoyah Fuels Corporation, supra*, at 316.

With regard to item (8), engineered barriers, the RRDP does not contemplate such a measure; therefore this area of concern is not germane to this proceeding. *Id.*

Similarly, the Staff submits that as item (9), emergency planning and training for long-term custodianship, is not a required expense, there is no regulatory basis upon which to litigate this item, and it should be barred from this proceeding as nongermane. *Babcock and Wilcox Company, supra*, at 217-18 (1994).

With regard to item (11), licensees are not required to provide financial assurance for enforcement of institutional controls for restricted release decommissioning. Financial assurance is only required for control and maintenance of the site by the custodian. 10 C.F.R. §§ 20.1403(b) and 20.1403(e)(2)(iii). Once again, since there is no regulatory

basis upon which to litigate this area of concern, it must as a matter of law be found not germane. *Babcock and Wilcox Company, supra*, at 217-18.

With regard to item (13), the Staff Technical Review of Fansteel's amendment request will look for adequate funding to cover, among other items, unanticipated contingencies.¹⁴ The Staff will not approve Fansteel's plan for decommissioning its site without an adequate contingency fund, and as noted above, inadequate funding for such proposed activity has been held to be a germane area of concern. *See Hydro Resources, supra*, at 282.

In its appeal from the Presiding Officer's Order granting Oklahoma's request for hearing, Fansteel argues that all items within this larger area of concern are inadmissible for a number of reasons. For instance, Fansteel notes (correctly) that items (2), (9) and (11) are not required by NRC regulations and therefore are not litigable within this proceeding. Fansteel Appeal at 30. The Staff joins Fansteel in requesting the Commission strike these items as nongermane to this proceeding. With regard to item (7), however, Fansteel is incorrect in arguing lack of germaneness to this proceeding. It asserts that the costs of leachate collection and remediation are not germane because, as the RRDP states, the containment cell is designed to prevent radioactive leachate from being generated. However, as the Staff has noted above, it will be examining Fansteel's RRDP in the course of its

¹⁴NRC Draft Regulatory Guide DG-3014 (Proposed Revision 1 to Regulatory Guide 3.66), "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 C.F.R. Parts 30, 40, 70 and 72" (June 1999), provides that the decommissioning cost estimate should apply a contingency factor of 25 percent to the sum of all estimated decommissioning costs to protect against unforeseen decommissioning costs.

Technical and Environmental Reviews. One issue will obviously be whether the Staff can conclude that the disposal cell will operate as designed and as Fansteel believes it will. Fansteel acknowledges in its appeal that while the disposal cell is designed to prevent generation of leachate, it has also installed a groundwater collection and treatment system at its site that will in part serve to “intercept any contaminated liquids that might come from the cell...” Fansteel Appeal at 30-31. The production of contamination by licensed activities and adequate financial assurance for licensed activities have been held to be germane areas of concern. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 281-83 (1998). Accordingly, the Commission should uphold inclusion of item (7) as germane to this proceeding.

Fansteel argues in its appeal that other alleged defects of its financial assurance plan are in fact vague, speculative and not rationally related to this proceeding. Fansteel Appeal at 31-32. In the case of one such item - item (8), engineered barrier replacement - the Staff agrees with Fansteel that the RRDP does not contemplate engineered barriers. The Staff therefore submits, along with Fansteel, that this item be excluded as nongermane. *Sequoyah Fuels, supra*, at 316.

Fansteel also asserts that item (1) - funding of cell repair - lacks sufficient detail to be admitted, and that items (12) and (13) - costs of preventing migration of the Arkansas River into the disposal cell; and other unforeseen problems and acts of God - should be excluded as well because they are not reasonably anticipated costs. Fansteel Appeal at 31-32. With

regard to item (1), the Staff will examine this issue as part of its Technical Review of the RRDP, and therefore believes it germane to this proceeding. Regarding item (12), the Staff cannot state at this early stage of its Technical Review whether erosion migration into the RRDP site is a possible eventuality. It does not believe it possible at this time, therefore, to assert that this item is nongermane to the proceeding. The Staff therefore requests the Commission uphold admission of this item as a germane area of concern. *Babcock and Wilcox* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217 (1994).

Finally, Fansteel identifies certain items as containing duplicative costs. It states that items (1) and (2) - repair and replacement of the disposal cell - are improperly identified by Oklahoma as separate items rather than as one. Fansteel Appeal at 32. As the Staff has noted above, item (1) should be admitted as a germane area of concern, since it will be examined as part of the Staff's Technical Review, and item (2) should be excluded as it is neither a required nor reasonably anticipated expense. *See supra* at pp. 25-26. Fansteel makes similar arguments with regard to item (6) (delineated in Oklahoma's request for hearing as items (h) and (i)). The Staff believes that whether listed separately or as one, the factors that make up item (6) should be included as germane, as their level of funding will be examined as part of the Staff's Technical Review. *See supra* at pp. 25-26. Finally, with regard to the fifth area of concern, Fansteel argues that a portion of item (4) - that dealing with short-term testing, analysis and monitoring of cell performance - should be excluded

as nongermane because of the NRC requirement that two years of funding for such activity be provided (in order to determine if requirements for termination are met, and to ensure that detected inadequacies be fixed). However, as the Staff noted with respect to item (6), such funding has been required to be examined in Staff Technical Reviews as a reasonable and necessary expense, *see supra* at pp. 25-26, and inadequate funding for the proposed activity has been held to be a germane area of concern. *Hydro Resources, Inc., supra*, at 282.

6. Design and Sufficiency of Proposed Disposal Cell

The final area of concern raised by Oklahoma, and opposed by Fansteel, involves the adequacy of the design and the sufficiency of the disposal cell as proposed in Fansteel's RRDP. Oklahoma in its request for hearing claimed a number of deficiencies, including a design that will fail to prevent groundwater contamination, due to both the location of the cell and its lack of a leachate collection system; the placement of the cell in a probable maximum floodplain; and the placement of the cell near an existing sewer main and gas line. *See Oklahoma Request for Hearing at 38-43.*

The Staff believes that all of Oklahoma's stated concerns with respect to the design and sufficiency of the disposal cell are germane to this proceeding, as the issues raised by Oklahoma will be examined as part of the Staff's technical review and environmental review under 10 C.F.R. Part 51. The Presiding Officer agreed¹⁵, admitting this area of concern in

¹⁵As did the Presiding Officer in *Sequoyah Fuels, supra*, at 34-37.

its entirety, also noting the Staff's intent to review these issues as part of the approval process for the RRDP. *Fansteel, Inc., supra*, slip op. at 13.

Fansteel also notes in its appeal the NRC Staff's planned extensive reviews of Fansteel's RRDP, but argues that since Oklahoma will have a wealth of opportunities during the review process to participate and comment upon any future environmental impact statement (EIS), there is no need to include this area of concern in the proceeding, and it should be held inadmissible. Fansteel Appeal at 33-34.

While the Staff agrees with Fansteel that Oklahoma will indeed have more than one opportunity to provide its views on the approval of the Fansteel RRDP during the Staff's review, it disagrees strongly with adopting the view that, in essence, the importance of this issue (design and sufficiency of the disposal cell) during the Staff's review paradoxically renders it inadmissible at hearing. The Staff strongly urges that the Commission uphold the Presiding Officer's ruling that this area of concern is germane to this proceeding.

CONCLUSION

For the foregoing reasons, the Staff requests that the Commission uphold the December 29, 1999 Memorandum and Order of the Presiding Officer finding that the State of Oklahoma has demonstrated standing and redressability sufficient to grant its request for

hearing on the question of approval of Fansteel's RRDP submission. The Staff also requests that the Commission uphold the Presiding Officer's admission of certain areas of concern as germane to the proceeding, and reverse others, as described in detail above.

Respectfully submitted,



L. Michael Rafky
Counsel for NRC Staff

Dated at Rockville, Maryland
this 2nd day of February 2000

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NOV 11

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE COMMISSION

In the Matter of)	Docket No. 40-7580-MLA
)	
FANSTEEL, INC.)	Re: Request To Amend Source
)	Materials License No. SMB-911
(Muskogee, Oklahoma Facility))	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF'S RESPONSE TO FANSTEEL, INC'S APPEAL FROM THE PRESIDING OFFICER'S DECISION TO GRANT A HEARING" have been served upon the persons listed below by 1st class U.S. mail or through deposit in the Nuclear Regulatory Commission's internal mail system as indicated with an asterisk, this 2nd day of February 2000.

Administrative Judge Thomas S. Moore*
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Administrative Judge Thomas D. Murphy*
Special Assistant
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Stephen L. Jantzen, Esq.
Assistant Attorney General
Environmental Protection Unit
2300 N. Lincoln Blvd., Suite 112
Oklahoma City, OK 73105

W.A. Drew Edmondson, Esq.
Attorney General of Oklahoma
2300 N. Lincoln Blvd., Suite 112
Oklahoma City, OK 73105

Daniel P. Trocchio
Richard W. Hosking
John Englert
Bikram Bandy
Kirkpatrick & Lockhart LLP
1500 Oliver Building
Pittsburgh, PA 15222-2312

Mr. John J. Hunter
Fansteel, Inc.
Number Ten Tantalum Place
Muskogee, OK 74403-9296

Adjudicatory File (2)*
Atomic Safety and Licensing Board
Mail Stop: T-3F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Office of the Secretary (16)*
ATTN: Rulemaking and Adjudications
Staff
Mail Stop: O-16G15
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety and Licensing Board Panel*
U.S. Nuclear Regulatory Commission
Mail Stop: T-3F23
Washington, D.C. 20555

Office of Commission Appellate
Adjudication*
U.S. Nuclear Regulatory Commission
Mail Stop: O-16G15



L. Michael Rafky
Counsel for NRC Staff