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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'99 NOV -5 P3:50

BEFORE THE PRESIDING OFFICER

In the Matter of)	
)	Docket No. 49-7580-MLA
)	
FANSTEEL, INC.)	Request to Amend Source Material
(Muskogee, Oklahoma Facility))	License No. SMB-911

OFFICE OF THE PRESIDING OFFICER
RULING STAFF

NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney enters an appearance in the above-captioned matter. In accordance with 10 C.F.R. § 2.713(b) the following information is provided:

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Name of Party: NRC Staff

Respectfully submitted,



L. Michael Rafky
Counsel for NRC Staff

Dated at Rockville, Maryland
this 5th day of November 1999

PDR A DOCK

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NUCLEAR REGULATORY COMMISSION

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In the Matter of)	Docket No. 40-7580-MLA
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(Muskogee, Oklahoma Facility))	Material License No. SMB-911.
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OFFICE OF SECRETARY
ADJUDICATION STAFF

NRC STAFF'S RESPONSE TO REQUEST FOR HEARING
FILED BY THE STATE OF OKLAHOMA

INTRODUCTION

In accordance with 10 C.F.R. § 2.1213, the Staff hereby informs this Board that it will be a party to the proceeding initiated by the State of Oklahoma (Oklahoma or State) in its Request for Hearing dated October 14, 1999, regarding the license amendment requested by Fansteel, Inc. (Fansteel) to allow construction of a containment cell for soils containing residual activity at its site in Muskogee, Oklahoma. For the reasons set forth below, the Staff submits that the State has met the requirements for interest and standing set forth in 10 C.F.R. § 2.1205 and has identified areas of concern germane to this proceeding.

BACKGROUND

Fansteel is an NRC licensee located in Muskogee, Oklahoma and conducts 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 slags containing natural uranium and thorium. See "Notice of Consideration of Amendment

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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 0.68 million 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; therefore, this material must be removed offsite. *Id.* Fansteel has thus proposed to construct a containment cell (or disposal cell) for this material at the southwest corner of the Fansteel 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, contaminated soil and rubble. The solidification process involves mixing the contaminated materials with cement to form a solid concrete-like monolith. *Id.* 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. *Id.* The NRC noticed receipt of the request, and the opportunity for a hearing,

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

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 amendment. *See* "State of Oklahoma's Request for Hearing" (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).

DISCUSSION

A. 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, 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 informal hearing is filed by any person other than the applicant, in connection with a materials licensing action under 10 C.F.R. Part 2, Subpart L, 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 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 I 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, PA 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 Atomic Energy Act (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 *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 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); *Vogtle, 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 (1966).

The Supreme Court of the United States has 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. *Id.* at 1167. See also *Vogle, 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, 1507 (6th Cir. 1995), citing *Duke Power Co. v. Carolina Envtl. Study Group*, 438 U.S. 59 (1978).

The Staff has reviewed the Request for Hearing filed by the State of Oklahoma, and believes that Oklahoma has satisfactorily demonstrated various cognizable interests which could be affected by the outcome of this proceeding. For example, Oklahoma has identified, *inter alia*, its interest as a State government responsible for protecting the health and safety of its citizens, as well as its interests in property located in the immediate vicinity of the proposed containment cell which could be affected by the granting of the requested license amendment. *See* Request for Hearing at 16-19.

Similarly, "injury in fact" has been established in that Oklahoma has shown that it may suffer injury to certain interests within the zone of interests protected by the AEA and NEPA, as Oklahoma has alleged that the radioactive material to be stored in the proposed containment cell could harm the Arkansas River, which is both hydrologically and geologically connected to groundwater beneath the Fansteel facility, as well as those citizens of Oklahoma who rely upon that river for "consumption, irrigation, or livestock uses." *Id.* at 17-19. Oklahoma also alleges that Fansteel has not provided adequate financial funding for maintenance and repair of the disposal cell cap, thus resulting in inevitable airborne releases of radioactivity. *Id.* at 20.

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), 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). 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 the state-operated McClellan-Kerr and Cherokee Gruber Wildlife Refuges. *See* Request for Hearing at 10-12. Accordingly, the Staff believes that the State of Oklahoma has satisfactorily demonstrated its standing to intervene in this proceeding.

B. Areas of Concern

Where a request for hearing is filed by any person other than the applicant pursuant to 10 C.F.R. Part 2, Subpart L, 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)(3). 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).

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

Oklahoma alleges an area of concern in that the Fansteel site is not eligible for decommissioning for restricted release because the NRC did not intend 10 C.F.R. § 20.1403

to apply to the Fansteel site. Oklahoma asserts that 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. By contrast, Oklahoma believes that the radioactive contaminants at the Fansteel site will remain potentially hazardous to the public health, safety and welfare, and the environment of Oklahoma, for billions of years. Request for Hearing at 27-28. In support, Oklahoma references the *Statement of Consideration*, "Radiological Criteria for License Termination," 62 *Fed. Reg.* 39058, 39069 (July 21, 1997). Request for Hearing at 27-28 and 28 n.15². 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. *Id.* Most importantly, the explicit language of 10 C.F.R. § 20.1403 does not limit its application to sites contaminated with short-lived nuclides, and contrary to Oklahoma's assertions, application of the rule was explicitly contemplated for sites contaminated with long-lived nuclides such as uranium,³

²Oklahoma argues that the Fansteel license, and past public acceptance of the facility, require that the Fansteel site be decommissioned for unrestricted release, and that Fansteel should not be permitted to amend its license for restricted release after adoption of 10 C.F.R. § 20.1403. Request for Hearing at 28 and 28 n.16. Oklahoma therein fails to state an area of concern germane to the challenged action.

³"In a limited number of cases, in particular those involving large quantities of uranium and thorium contamination, 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*, "Radiological Criteria for License Termination," 62 *Fed. Reg.* 39058, 39070.

including NRC Site Decommissioning Management Plan (SDMP) sites such as Fansteel.⁴ Oklahoma's attack on 10 C.F.R. § 20.1403 is an impermissible attack on that regulation, and thus barred by NRC regulation 10 C.F.R. § 2.1239(a). Since there is no regulatory basis upon which to litigate Oklahoma's alleged area of concern regarding the applicability of 10 C.F.R. § 20.1403 to the Fansteel site, the alleged area of concern is not germane. *Babcock and Wilcox Company*, LBP-94-12, 39 NRC 215, 217-18 (1994).

2. ALARA

Oklahoma alleges an area of concern in that the proposed license amendment does 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 seeks to demonstrate that under no circumstances would decommissioning for unrestricted release result in net public or environmental harm. Request for Hearing at 29-32. Oklahoma challenges a number of aspects of Fansteel's ALARA analysis, including figures for population density, disposal cell area, monetary discount figures and placement of values on the side of "costs" versus "benefits," and claims that the entire analysis is too simplified to be of analytical value. *Id.*

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 NRC's SDMP. 62 *Fed. Reg.* 39058, 39065.

By challenging the validity of Fansteel's ALARA study, Oklahoma has stated an area of concern germane to the challenged action. *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).

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

Oklahoma alleges an area of concern in that Fansteel has failed to demonstrate reasonable assurance that, if institutional controls were no longer in effect, the TEDE from residual radioactivity distinguishable from background is ALARA, and not in excess of 100 mrem per year, or 500 mrem per year under certain circumstances, as required by 10 C.F.R. § 20.1403. Request for Hearing at 33-34. Oklahoma buttresses this claim by pointing to alleged errors in Fansteel's modeling, in particular as it relates to radiation doses from the disposal cell in the event that no cap exists on that cell. Oklahoma has stated an area of concern germane to the challenged action.

4. Institutional Control and Long-Term Custodianship

(A) Oklahoma alleges an area of concern in that the Restricted Release Decommissioning Plan (RRDP) fails to adequately demonstrate legally enforceable controls and long-term custodianship of the Fansteel site because the proposed controls are not durable enough 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), as the proposed controls cannot be considered

effective for the enormous lengths of time associated with the half-lives of the long-lived radioactive contaminants at the Fansteel site. Request for Hearing at 34-35. It should be noted that the Commission did not intend to require proof that institutional controls will be effective for the 1000 year period specified by 10 C.F.R. § 20.1401(d)⁵. Moreover, durable institutional controls are required by 10 C.F.R. § 20.1403(e)(2)(ii) only if the 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 does not substantively assert that the TEDE could or will be more than 100 mrem per year or that 10 C.F.R. § 20.1403(e)(2) applies. Accordingly, there is no regulatory basis upon which to litigate the alleged concern, *Babcock and Wilcox Company*, LBP-94-12, 39 NRC 215, 217-18 (1994), and Oklahoma provides insufficient information to determine that durability of institutional controls is an area of concern germane to the challenged action. *Sequoyah Fuels Corporation*, LBP-94-39, 40 NRC 314, 316 (1994).

(B) Oklahoma alleges an area of concern in that the RRDP does not definitively identify a long-term custodian for the Fansteel site and fails to adequately map out long-term custodial care because maintenance of the disposal cell is not adequately addressed. Request for Hearing at 35. Fansteel proposes physical controls on the portion of its site to be

⁵"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 institutional controls could reasonably be expected to be effective into the foreseeable future." 62 *Fed. Reg.* 39058, 39070.

decommissioned under restricted release, including a fence and periodic monitoring. RRDP, Containment Cell Portion, Section 2.1.2.4, "Institutional Controls" (August 1999). The physical controls are necessary to protect public health and safety (for example, to prevent unauthorized persons from entering the restricted area and to prevent intruders from removing radiologically hazardous material from the restricted area) and to alert the custodian to any necessary repairs to the containment cell, fence or monitoring equipment. Physical controls and their maintenance can be used to meet the requirement of 10 C.F.R. § 20.1403(b) for legally enforceable institutional controls only when the physical 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 proposes a custodian to perform the maintenance and control function after termination of the license, but has not identified the custodian or provided the contract with the custodian. RRDP at Section 1.2. Accordingly, the Staff is unable 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 must review the custodial contract to determine whether public health and safety will be assured if Fansteel were permitted to decommission the site for restricted release with an on-site containment cell. Oklahoma's area of concern is therefore relevant, and thus germane, to the challenged action. *Sequoyah Fuels Corporation*, LBP-94-39, 40 NRC 314, 316 (1994).

5. Alleged Failure to Comply with NRC Financial Assurance Requirements

Oklahoma alleges an area of concern in that the RRDP violates the financial assurance requirements of 10 C.F.R. § 20.1403(c), because it is possible that annual expenses will 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: (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 performance⁶; (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. Request for Hearing at 36-37.

(A) While the fact that the RRDP budget does not have a line item for each individual expense of custodianship does not necessarily mean that no financial provision has been made for these items, the proposed budget does not provide sufficient detail regarding certain

⁶Related to item (3), Oklahoma alleges an area of concern in that airborne radioactive contaminants will be accelerated by the inadequate budget for long-term maintenance of the cell cap. Request for Hearing at 41-42.

expenses to determine if they are adequately funded. Inadequate funding for the proposed activity has been held to be an area of concern germane to proposed licensed activity. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 282 (1998). The Staff Technical Review will consider whether the RRDP and the custodial contract make adequate provision for funding all necessary and reasonably anticipated expenses, including items (1), (3), (5), (6), (7), (10) and (12). With regard to items (1)⁷, (3), (5), (6)⁸, (7), (10) and (12)⁹, Oklahoma has stated an area of concern germane to the challenged action.

(B) With regard to item (2), the Staff does not believe that replacement of the disposal cell is either a required or reasonably anticipated expense. The cell is, in part, the collected contaminated material from the Fansteel site, and there is no rational reason to replace the entire cell. Accordingly, funding to replace the disposal cell is not rationally

⁷Closely related to item (1), Oklahoma alleges an area of concern in that the disposal cell is inadequate to prevent contamination of groundwater beneath the Fansteel site because the RRDP proposes inadequate funding for maintenance and repair of the disposal cell cap, which will amplify leaching of contaminants from the cell. Request for Hearing at 39. This alleged area of concern is likewise germane to the proceeding, because the alleged area of concern relates to a reasonable and necessary expense.

⁸The Staff considers this area of concern repetitive of item (13) - unforeseen problems - and that item (13) states an area of concern germane to the challenged action. See pp. 17-18, *infra*.

⁹With regard to this area of concern, the Staff cannot state at this 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 the challenged action. Accordingly, Oklahoma states an area of concern germane to the challenged action. *Babcock and Wilcox* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217 (1994).

related, and thus not germane, to the challenged action. *Babcock and Wilcox* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217 (1994).

(C) Regarding item (4), Staff practice in Technical Reviews has been to require, as a reasonable and necessary expense, funding for 2 years of monitoring of disposal cell performance to determine if the cell will contain waste such that requirements for termination will be met, and to require that detected inadequacies be fixed, before termination of the license 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).

In regard to funding for short-term monitoring of disposal cell performance, Oklahoma has stated an area of concern germane to the challenged action. Long-term monitoring, however, is required in decommissioning for restricted release 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 more than 100 mrem and less than 500 mrem per year. 10 C.F.R. § 20.1403(e)(2)(iii). Oklahoma does 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, Oklahoma provides insufficient information to determine that inadequate funding for long-term monitoring of disposal cell performance is an area of concern germane to the challenged action. *Sequoyah Fuels Corporation*, LBP-94-39, 40 NRC 314, 316 (1994).

(D) With regard to item (8), the RRDP does not contemplate engineered barriers. Therefore, this alleged area of concern is not rationally related, and thus not germane, to the challenged action. *Sequoyah Fuels Corporation*, LBP-94-39, 40 NRC 314, 316 (1994).

(E) With regard to item (9), emergency planning and training for long-term custodianship is not a required expense. Since there is no regulatory basis upon which to litigate Oklahoma's alleged area of concern, this area of concern is not germane. *Babcock and Wilcox Company*, LBP-94-12, 39 NRC 215, 217-18 (1994).

(F) With regard to item (11), licensees are not required to provide financial assurance for enforcement of institutional controls for restricted 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). Since there is no regulatory basis upon which to litigate Oklahoma's alleged area of concern, the alleged area of concern is not germane. *Babcock and Wilcox Company*, LBP-94-12, 39 NRC 215, 217-18 (1994).

(G) With regard to item (13), the Staff Technical Review will look for adequate funding to cover all necessary and reasonably anticipated expenses, including that for unanticipated contingencies¹⁰. The Staff will not approve the Fansteel plan for decommissioning the Fansteel site without an adequate contingency fund. Inadequate

¹⁰NRC 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.

funding for the proposed activity has been held to be an area of concern germane to proposed licensed activity. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 282 (1998). Accordingly, adequate funding for unanticipated contingencies is an area of concern germane to the challenged action.

6. Design and Sufficiency of Proposed Disposal Cell

(A) Oklahoma alleges an area of concern in that the design of the disposal cell is inadequate to prevent contamination of groundwater beneath the Fansteel site, because the RRDP proposes no liner or leachate collection system and Fansteel admits that the disposal cell will create leachate. Request for Hearing at 38-40. The Staff will examine as part of its Technical Review and environmental review under 10 C.F.R. Part 51 whether use of a liner or leachate collection system may be necessary. The production of contamination by the proposed licensed activity has been held to constitute a germane area of concern. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 281-82 (1998). Accordingly, Oklahoma states an area of concern germane to the challenged action.

(B) Oklahoma alleges an area of concern in that the design and location of the disposal cell is inadequate to prevent contamination of groundwater beneath the Fansteel site, because the disposal cell will be placed directly over test boring locations and groundwater monitoring wells, providing a “superhighway” for contaminants to reach groundwater at the site, and because plugging the wells will not prevent a direct pathway for further groundwater contamination. Request for Hearing at 39-40. The Staff will examine as part of its Technical

Review and environmental review under 10 C.F.R. Part 51 the issue of possible groundwater contamination. Oklahoma therefore states an area of concern relevant, and thus germane, to the challenged action. *Sequoyah Fuels Corporation*, LBP-94-39, 40 NRC 314, 316 (1994).

(C) Oklahoma alleges an area of concern in that Fansteel has proposed to place the disposal cell directly in the probable maximum floodplain. In the event of a breach of the nearby Fort Gibson dam, the disposal cell will be inundated by flood water. The RRDP also fails to account for other dams above the Fansteel site. Request for Hearing at 42. The Staff will evaluate this issue as part of its Technical Review and environmental review under 10 C.F.R. Part 51. Accordingly, Oklahoma states an area of concern germane to the challenged action. *Babcock and Wilcox* (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217 (1994).

(D) Finally, Oklahoma alleges an area of concern in that Fansteel proposes to place the disposal cell near an existing sewer main and gas line. The RRDP fails to account for this placement or the damage that may occur to the disposal cell in the event of the repair or replacement of those lines. The RRDP additionally fails to address the effect of the disposal cell on those lines, whether radioactive leachate from the cell will infiltrate those lines, whether the holders of easements relating to those lines have been apprised of Fansteel's proposed actions, and whether the City of Muskogee's sewer system can handle radioactive waste. Request for Hearing at 42-43. The Staff Technical Review and environmental review under 10 C.F.R. Part 51 will examine the issue of the placement of the disposal cell in

relation to the aforementioned gas line and sewer main. Accordingly, Oklahoma has stated an area of concern germane to the challenged action. *Sequoyah Fuels Corporation*, LBP-94-39, 40 NRC 314, 316 (1994).

CONCLUSION

Based upon the foregoing, the Staff concludes that the State of Oklahoma's Request for Hearing establishes that Oklahoma has the requisite standing to participate as a party in any hearing concerning Fansteel's RRDP, and that Oklahoma has stated areas of concern germane to the challenged action.

Respectfully submitted,



L. Michael Rafky
Counsel for NRC staff

Dated at Rockville, Maryland
this 5th day of November 1999

DOCKETED
USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'99 NOV -5 P3:50

BEFORE THE PRESIDING OFFICER

In the Matter of)
)
FANSTEEL, INC.)
)
(Muskogee, Oklahoma Facility))

Docket No. 40-7580-MLA
Re: Request To Amend Source
Materials License No. SMB-911

OFFICE OF PUBLIC AFFAIRS
ADJUDICATORY DIVISION

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "NRC STAFF'S RESPONSE TO REQUEST FOR HEARING FILED BY THE STATE OF OKLAHOMA" 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 5th day of November 1999.

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