UNITED STATES
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

In the Matter of	)	
	)	
FANSTEEL, INC.,	)	Docket No. 40-7580
	)	
(Request to Amend Source Materials License No. SMB-911	)	

STATE OF OKLAHOMA'S REQUEST FOR HEARING

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The Attorney General of the State of Oklahoma, W.A. Drew Edmondson, by and through the undersigned, Stephen L. Jantzen, Assistant Attorney General, on behalf of the State of Oklahoma ("Oklahoma"), hereby submits this Request for Hearing pursuant to 10 C.F.R. § 2.1205 (1999) on the matter of Fansteel, Inc.'s ("Fansteel") request to amend Source Materials License No. SMB-911 to authorize the construction of a permanent, on-site, above-grade, radioactive waste disposal cell at Fansteel's facility near Muskogee, Oklahoma (the "Fansteel Facility"), and the decommissioning of the disposal cell site area for restricted release pursuant to 10 C.F.R. § 20.1403 (1999) (the "Proceeding"). Oklahoma requests an informal hearing to present evidence showing why the decommissioning of the Fansteel Facility proposed in the Restricted Release Decommissioning Plan (as hereinafter defined) is not in compliance with the regulations of the U.S. Nuclear Regulatory Commission ("NRC") and detailing the dangerous consequences that would result from any

approval of the Restricted Release Decommissioning Plan and the resulting amendment to Source Materials License No. SMB-911.

I. BACKGROUND

A. FACTUAL HISTORY

The Fansteel Facility is situated on 110 acres of land located directly on the western bank of the Arkansas River (Webbers Falls Reservoir) in eastern Oklahoma near the City of Muskogee. Exhibits 1 and 2. It is bounded on the west by State Highway 165 (the Muskogee Turnpike) and on the south by U.S. Highway 62. Exhibit 1. From 1958 until 1989, the Fansteel Facility housed a rare metal extraction operation, producing tantalum and columbium metals from raw and beneficiated ores and tin slag feedstock. REMEDIATION ASSESSMENT, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 1-2 (1993). The raw materials used for tantalum and columbium production contained uranium and thorium as naturally occurring trace constituents in such concentrations that Fansteel was required to obtain an NRC license. Id. The Fansteel Facility was licensed by NRC in 1967 to process ore concentrates and tin slags in the production of refined tantalum and columbium products. U.S. NUCLEAR REGULATORY COMMISSION, ENVIRONMENTAL ASSESSMENT - LICENSE AMENDMENT FOR MATERIAL LICENSE NO. SMB-911, 1-1 (December 1997). Processing operations at the Fansteel Facility ceased in December of 1989. Id.

As a result of operations and various accidents and releases, the Fansteel Facility, including its soils and groundwater, have been and continue to be contaminated by uranium

and thorium, as well as by ammonia, arsenic, chromium, cadmium, methyl isobutyl ketone (MIBK), and fluoride.[1] REMEDIATION ASSESSMENT, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 1-2 (1993).

B. PROCEDURAL HISTORY

The Fansteel Facility has been included in the NRC's Site Decommissioning Management Plan ("SDMP"). On July 6, 1998, Fansteel submitted its proposed Decommissioning Plan for the Fansteel Facility, requesting an amendment to Source Materials License No. SMB-911 to decommission the Fansteel Facility (the "Proposed Decommissioning Plan"). Fansteel supplemented the Proposed Decommissioning Plan on December 4, 1998. In essence, the Proposed Decommissioning Plan incorporated a two-pronged approach toward decommissioning the Fansteel Facility. Under the first prong, a majority of the Fansteel Facility would be decommissioned for unrestricted release. DECOMMISSIONING PLAN, FANSTEEL, INC.-MUSKOGEE, OKLAHOMA 1-1, 2-1 (December 1998). Under the second prong, a permanent, on-site, above-grade, disposal cell for the disposal of radioactive decommissioning waste would be located at the Fansteel Facility, and

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[1] Of the radioactive contaminants at the Fansteel Facility, thorium appears to have the shortest half-life, i.e., approximately 80,000 years. Meanwhile, the half-life of uranium is approximately 14,000,000,000 years. A generally accepted "rule of thumb" is that radioactive contaminants continue to pose a hazard to the public health, safety, and welfare, and the environment, for about ten (10) times the half-life of a given radioactive isotope. Thus, the radioactive contaminants at the Fansteel Facility will remain potentially hazardous to the public health, safety, and welfare, and the environment for billions of years. Neither the thorium nor the uranium at the Fansteel Facility will decay to unrestricted dose levels within any meaningfully finite period of time.

the corresponding portion of the Fansteel Facility would be decommissioned for restricted release pursuant to 10 C.F.R. § 20.1403 (1999). Id.

By correspondence dated March 31, 1998, NRC notified Fansteel of its intention to review the Proposed Decommissioning Plan as two separate plans. Therein, NRC also requested additional information from Fansteel relating to the Proposed Decommissioning Plan. In response, Fansteel requested a meeting to discuss NRC's request for additional information. During this meeting, which was held on April 13, 1999, it was decided that Fansteel would bifurcate the Proposed Decommissioning Plan for the entire Fansteel Facility. Exhibit 3. One portion would relate to the eastern portion of the Fansteel Facility, for which Fansteel sought decommissioning for unrestricted release pursuant to SDMP criteria. Id. Fansteel would submit a separate decommissioning plan for a smaller segment of the Fansteel Facility where Fansteel proposed to place a permanent disposal cell for the placement of radioactive decommissioning waste. Id.

On August 13, 1999, Fansteel submitted its proposed plan for the decommissioning of the disposal cell portion of the Fansteel Facility (the "Restricted Release Decommissioning Plan"). The Restricted Release Decommissioning Plan is a request to amend Source Materials License No. SMB-911 to permit the decommissioning of a portion of the Fansteel Facility for restricted release pursuant to 10 C.F.R. § 20.1403 (1999), utilizing an on-site, above-grade, disposal cell for the permanent disposal of radioactive decommissioning waste, including long-lived radioactive material such as uranium and thorium. As proposed by Fansteel, the disposal cell would have a estimated volume of over

25,500 cubic yards, DECOMMISSIONING PLAN, FANSTEEL, INC - MUSKOGEE, OKLAHOMA 2-1 (August 1999), an estimated footprint of over six (6) acres, 2 REMEDIAL DESIGN REPORT STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC - MUSKOGEE, OKLAHOMA B.2.5-6 (August 1999), and a height of approximately twenty (20) feet above-grade. 1 REMEDIAL DESIGN REPORT STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC - MUSKOGEE, OKLAHOMA 15 (August 1999). It would be located approximately three hundred (300) yards from the Arkansas River (Webbers Falls Reservoir), and just a few hundred feet from State Highway 165. Exhibits 1 and 2.

On September 14, 1999, NRC caused to be published in the Federal Register its Notice of Consideration of an Amendment Request for Construction of a Containment Cell at Fansteel Facility in Muskogee, Oklahoma and Opportunity for a Hearing (the "Notice"), relating to the Restricted Release Decommissioning Plan. Exhibit 4. The Notice states that NRC is considering Fansteel's request to amend Source Materials License No. SMB-911 as requested in the Restricted Release Decommissioning Plan, and that any person whose interest may be affected by the Proceeding can request an informal hearing pursuant to 10 C.F.R. § 2.1205 (1999). Id.

II. REQUEST FOR HEARING

A. REQUIREMENTS FOR REQUESTS FOR HEARING

The provisions of 10 C.F.R. Part 2, Subpart L, titled Informal Hearing Procedures for Adjudications in Materials and Operator Licensing Proceedings, govern any adjudication initiated by a request for hearing in a proceeding for the amendment of a materials license subject to 10 C.F.R. Part 40. 10 C.F.R. § 2.1201(a)(1) (1999). This Request for Hearing relates to Fansteel's request to amend its 10 C.F.R. Part 40 license for the decommissioning of a portion of the Fansteel Facility for restricted release, and is therefore subject to Subpart L.

In Subpart L informal adjudications, a request for a hearing by a person other than the applicant must describe in detail: (1) the interest of the requestor in the proceeding; (2) how those interests may be affected by the results of the proceeding; (3) the requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and (4) the circumstances establishing the timeliness of the hearing request. 10 C.F.R. § 2.1205(e)(1)-(4) (1999).

Additionally, the requestor must demonstrate standing, taking into consideration (1) the nature of the requestor's right under the Atomic Energy Act to be made a party to the proceeding; (2) the nature and extent of the requestor's property, financial, or other interests in the proceeding; and (3) the possible effect of any order that may be entered in the proceeding upon the requestor's interest. 10 C.F.R. § 2.1205(h)(1)-(3) (1999). In determining whether a requestor's interest may be affected by a licensing proceeding, NRC

looks to judicial concepts of standing. 10 C.F.R. § 2.1205(h) (1999). Thus, a requestor's injury must arguably fall within the zone of interests sought to be protected by the statutes governing the proceeding (e.g., the Atomic Energy Act, 42 U.S.C. § 2011 et seq.). Atlas Corp. (Moab, Utah Facility), LBP-97-9, 45 N.R.C. 414, 423 (1997). A request for hearing must allege injury-in-fact; the injury must be fairly traceable to the challenged action;[2] and the injury must be redressable by NRC. Id.; Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992).

While the person requesting a hearing has the burden of establishing standing, the Presiding Officer must construe the petition in favor of the requestor. Georgia Inst. of Technology (Georgia Tech Research Reactor), CLI-95-12, 42 N.R.C. 111, 115 (1995); Atlas Corp. (Moab, Utah Facility), LBP-97-9, 45 N.R.C. 414, 416 (1997). In order to demonstrate standing at this stage, Oklahoma does not have to prove the merits of its case. Warth v. Seldin, 422 U.S. 490, 500 (1975). Rather, in determining standing, it is incumbent upon the Presiding Officer to accept as true Oklahoma's material allegations. In the Matter of Georgia Inst. of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 N.R.C. 281, 286 (1995).

Lastly, the Presiding Officer must determine that the areas of concern specified by the requestor are germane to the subject matter of the proceeding. 10 C.F.R. § 2.1205(h)

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[2] The determination as to whether a Request for Hearing's asserted injury is fairly traceable to the proposed licensing action is not dependent on whether the cause of the injury flows directly from the licensing action, but whether the chain of causation is plausible. In the Matter of Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Unit 3), LBP-98-22, 48 N.R.C. 149, 155 (1998).

(1999). An area of concern is germane if it is relevant to whether the license should be denied or conditioned. In the Matter of Hydro Resources, Inc., LBP-98-9, 47 N.R.C. 261, 280 (1998). Areas of concern must fall "generally" within the range of matters that are properly subject to challenge in the proceeding, 54 Fed. Reg. 8269, 8272 (Feb. 28, 1989), and must be rational. Babcock and Wilcox Co. (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 N.R.C. 215, 217 (1994). The Subpart L direction to define areas of concern is only intended to ensure that the matters the requestor wishes to discuss in his or her written presentation are "generally" within the scope of the proceeding. Atlas Corp. (Moab, Utah Facility), LBP-97-9, 45 N.R.C. 414, 423 (1997).

B. OKLAHOMA'S RIGHT UNDER THE ATOMIC ENERGY ACT TO BE MADE A PARTY TO THE PROCEEDING

Pursuant to 42 U.S.C. § 2239(a)(1)(A), in any proceeding under Title 42, Chapter 23 of the United States Code for the granting, suspending, revoking, or amending of any license, NRC 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. Oklahoma is a "person" under the Atomic Energy Act, the definition of which includes "any State or any political subdivision of, or any political entity within a State." 42 U.S.C. § 2014(s). As described in detail below, Oklahoma has numerous property, financial, sovereign, and other interests that will be affected by the results of the Proceeding and the license amendment sought by Fansteel for the decommissioning of the Fansteel Facility as proposed in the

Restricted Release Decommissioning Plan.

C. OKLAHOMA' S INTERESTS IN THE PROCEEDING

Oklahoma has significant property, financial, sovereign, and other interests, such as the air, land, waters, environment, natural resources, wildlife, and citizens of Oklahoma, that will be affected by the results of the Proceeding. Oklahoma seeks to protect these interests through the above-captioned adjudication. Oklahoma has a right to participate in the Proceeding to protect all of its interests.

Oklahoma has a duty to protect the general welfare of its citizens, and therefore an interest in protecting the health, safety, and welfare of its citizens, many of whom live, work, travel, or recreate at or near the Fansteel Facility.[3] As sovereign, Oklahoma is parens patriae, i.e., guardian and trustee for all of its citizens, and may act to prevent or repair harm to its quasi-sovereign interests. Hawaii v. Standard Oil Co. of California, 405 U.S. 251, 258 (1972). In this regard, Oklahoma has a quasi-sovereign interest in the physical and economic health and well-being of its citizens. Alfred L. Snapp & Son v. Puerto Rico, 458 U.S. 592, 600-607 (1982). Indeed, it is well-established that states may appear before NRC to protect the interests of their citizens and their air, lands, waters, wildlife, and other natural resources. In the Matter of Int'l Uranium (USA) Corp. (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 N.R.C. 137, 145 (1998); In the Matter of Private Fuel Storage, L.L.C.

[3] Further, Oklahoma's citizens frequent the Arkansas River adjacent to the Fansteel Facility, as well as the Webbers Falls Unit of the McClellan-Kerr Wildlife Refuge and the Cherokee Gruber Wildlife Refuge, for recreational purposes such as hunting, fishing, hiking, etc.

(Independent Spent Fuel Storage Installation), LBP-98-7, 47 N.R.C. 142, 169 (1998).[4] The Restricted Release Decommissioning Plan may injure the health, safety, and welfare of Oklahoma's citizens who rely upon waters in the Arkansas River for drinking, irrigation, and livestock uses, and may injure Oklahoma's natural resources, including its air, land, waters, and wildlife.

In addition to its citizens' health, safety, and welfare, Oklahoma also has an interest in protecting the economic welfare of its citizens. This includes protecting the integrity of both groundwater and surface water, at, near, and downstream of the Fansteel Facility, used by residents for irrigation and by livestock and wildlife. It also includes protecting the area's tax base and Oklahoma's tax revenues, which may be adversely affected by decreased tourism, eroded property values, and loss of economic development caused by the Restricted Release Decommissioning Plan, and its contamination of the air, land, waters, wildlife, and natural resources of Oklahoma.

Oklahoma also has the right to protect its proprietary interest in its air, lands, waters, wildlife, and other natural resources. Oklahoma owns the waters in the Arkansas River,[5]

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[4] At issue in the Private Fuel Storage, L.L.C. matter was the licensure and construction of a facility to possess and store spent nuclear reactor fuel located on the reservation of the Skull Valley Band of the Goshute Indians, which is wholly within the borders of the State of Utah. In that case, the Presiding Officer found that the State of Utah had standing. "The State's asserted health, safety, and environmental interests relative to its citizens living, working, and traveling near the proposed facility and in connection with its property adjoining the reservation and the proposed transportation routes to the facility are sufficient to establish its standing in this proceeding." Private Fuel Storage, L.L.C., 47 N.R.C. at 169.

[5] The Arkansas River is an important natural resource, and is a significant recreational and economic resource. Oklahoma's Water Quality Standards designate the segment of the Arkansas River adjacent to the Fansteel Facility with the following beneficial uses: (1) emergency water supply; (2) fish and

OKLA. STAT. tit. 60, § 60, Oklahoma Water Resources Bd. v. Cent. Oklahoma Master Conservancy Dist., 464 P.2d 748 (Okla. 1968), which borders the eastern boundary of the Fansteel Facility, Exhibits 1 and 2, and which is both hydrologically and geologically connected to groundwater beneath the Fansteel Facility.[6] Exhibit 5. Moreover, all wildlife

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wildlife propagation - warm water aquatic community; (3) agriculture; (4) hydropower; (5) industrial and municipal process; (5) recreation - primary body contact; (6) navigation; and (7) aesthetics. OAC 785, Chapter 45, Appendix A. Oklahoma's Water Quality Standards designate the segment of the Arkansas River from Robert S. Kerr Lake to the Arkansas state line (downstream of the Fansteel Facility) with the following beneficial uses: (1) public and private water supply; (2) fish and wildlife propagation - warm water aquatic community; (3) agriculture; (4) hydropower; (5) industrial and municipal process; (5) recreation - primary body contact; (6) navigation; and (7) aesthetics. OAC 785, Chapter 45, Appendix A. As discussed in more detail below, radioactive leachate from the disposal cell proposed by Fansteel may jeopardize the Arkansas River's ability to meet Oklahoma's Water Quality Standards. The portion of the Arkansas River adjacent to the Fansteel Facility serves as vital water transportation route commonly known as the McClellan-Kerr Arkansas River Navigation System, which links inland ports such as the Port of Catoosa (near Tulsa, Oklahoma) and the Port of Muskogee (near the Fansteel Facility, Exhibit 1), with the Mississippi River. In 1997, over 12,000,000 tons of commodities such as farm products, petroleum products, iron and steel, etc., were shipped on the McClellan-Kerr Arkansas River Navigation System. The Arkansas River is hydrologically and geologically connected to groundwater beneath the Fansteel Facility. Exhibit 5.

[6] As reflected in the Restricted Release Decommissioning Plan, and Fansteel's 1993 Remediation Assessment, groundwater beneath the Fansteel Facility is very shallow and is hydrologically and geologically connected to the Arkansas River. DECOMMISSIONING PLAN, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 2-20 (December 1998); REMEDIATION ASSESSMENT, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 1-2 (1993). The Fansteel Facility is located over an alluvium and terrace deposit (namely the deposit associated with and adjacent to the Arkansas River), which constitutes a principal groundwater resource in Oklahoma. Exhibit 5. Recharge areas for groundwater resources in alluvium and terrace deposits are essentially the same as the deposits. OKLAHOMA GEOLOGICAL SURVEY, MAPS SHOWING PRINCIPAL GROUND-WATER RESOURCES AND RECHARGE AREAS IN OKLAHOMA: SHEET 1 - UNCONSOLIDATED ALLUVIUM AND TERRACE DEPOSITS (1983). "Owing to the importance of alluvium and terrace deposits as recharge areas and as potential ground-water aquifers, special care must be taken in the utilization of lands underlain by these deposits. In particular, special attention must be exercised in storage or disposal of waste materials that contain leachable contaminants that could degrade the quality of water within or flowing across the alluvium or terrace deposits." Id. Therefore, groundwater under and in the immediate vicinity of the Fansteel Facility is considered vulnerable to contamination. OKLAHOMA WATER RESOURCES BOARD, TECHNICAL REPORT 99-1, STATEWIDE GROUNDWATER VULNERABILITY MAP OF OKLAHOMA C-10 (1999).

in the State of Oklahoma is property of the State.[7] OKLA. STAT. tit. 29, § 7-204. Due to the extreme lengths of time at issue in this matter, migration of the Arkansas River into the Fansteel Facility and the proposed disposal cell, has the very real potential for causing further damage to Oklahoma's citizens, air, land, waters, wildlife, and other natural resources and the navigability of the Arkansas River.[8] Exhibits 5 and 6.

Oklahoma also operates and manages the Webbers Falls Unit of the McClellan-Kerr Wildlife Refuge, as well as the Cherokee Gruber Wildlife Refuge, each of which is located in close proximity to the Fansteel Facility. Exhibit 7. Oklahoma leases certain agricultural rights and privileges in each of these wildlife refuges to third parties. Lastly, Oklahoma owns, operates, and maintains roads and thoroughfares in close proximity to the Fansteel Facility, most importantly State Highway 165 which runs adjacent to the Fansteel Facility. Exhibit 1.

Oklahoma, and its political subdivisions, have an economic interest in the Proceeding as they derive revenue from income taxes, sales taxes, and ad valorem (i.e., property) taxes. These revenues will be harmed in the event the NRC approves the Restricted Release Decommissioning Plan. Exhibit 8. As described in more detail below, the Restricted Release Decommissioning Plan will negatively impact tourism and industry in the area around the Fansteel Facility, which will reduce tax revenue to Oklahoma causing economic

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[7] Oklahoma is empowered to preserve and protect wild animals and fish for the common enjoyment of its citizenry. State of Oklahoma v. Kerr-McGee Corp., 619 P.2d 858, 861 (Okla. 1980).

[8] Further discussion of the migration of the Arkansas River is in Section II.F.6 of this Request for Hearing.

injury. Further, the Restricted Release Decommissioning Plan will render all or a portion of the Fansteel Facility of no market value, and will lower market values of real property in the area surrounding the Fansteel Facility, thereby lowering ad valorem tax revenues for Oklahoma and its political subdivisions and causing economic injury.

In addition to administering its own environmental programs, Oklahoma also regulates environmental matters in the State through federal delegations from the U.S. Environmental Protection Agency. For example, Oklahoma administers the National Pollution Discharge Elimination System under the Clean Water Act, and exercises authority under the Resource Conservation and Recovery Act, as well. Issues surrounding the Restricted Release Decommissioning Plan could implicate and involve Oklahoma's state and federal environmental regulatory jurisdiction, e.g., inevitable discharges and releases of radioactive contaminants from the disposal cell proposed by Fansteel to the waters of Oklahoma.

Oklahoma is owner and trustee for natural resources in Oklahoma and is responsible for protecting the air, land, waters, environment, wildlife, and natural resources of Oklahoma. Oklahoma, therefore, has an interest in protecting the integrity of its wildlife and natural resources, including air, land, groundwater, surface water, and wildlife, from contamination and other adverse environmental consequences that will result from the Restricted Release Decommissioning Plan. In addition, Oklahoma serves as the trustee for natural resources, including surface and groundwater resources, for damage recovery actions under the Comprehensive Environmental Response, Compensation, and Liability Act, 42

U.S.C. § 9607(f).

Lastly, Oklahoma has an interest in the correct application and enforcement of the laws, rules, and regulations governing NRC-licensed facilities in Oklahoma. In the State of Oklahoma, there are several facilities other than the Fansteel Facility under NRC's regulatory jurisdiction. Oklahoma is justifiably concerned that the misapplication of 10 C.F.R. § 20.1403 (1999) to the Fansteel Facility will serve as precedent for the misapplication of 10 C.F.R. § 20.1403 (1999) to other facilities in Oklahoma attempting decommissioning for restricted release, such as the Sequoyah Fuels Corporation Site located near Gore, Oklahoma.[9]

D. JUDICIAL STANDARDS OF STANDING

Oklahoma will suffer injury-in-fact if NRC amends Source Materials License No. SMB-911 by approving the Restricted Release Decommissioning Plan. Under NRC precedent, Oklahoma is presumed to have standing in this matter. Notwithstanding this presumption, however, Oklahoma has standing because the Restricted Release Decommissioning Plan threatens to cause "distinct and palpable" injuries to Oklahoma, its proprietary, sovereign, and financial interests, as well as its citizens, and its air, land, waters, wildlife, and natural resources, Kelley v. Selin, 42 F.3d 1501, 1508 (6th cir. 1995), cert. denied, 115 S.Ct. 2611 (1995), quoting Warth v. Seldin, 422 U.S. 490, 501 (1975), all of which are within the zone of interests of the Atomic Energy Act. A causal connection exists

[9] U.S. Nuclear Regulatory Commission Source Materials License No. SUB-1010, Docket No. 40-8027.

between these injuries and the Restricted Release Decommissioning Plan and any approval thereof by the NRC. Each of these injuries is redressable in the above-captioned matter.

1. PRESUMPTION OF STANDING

To establish standing in proceedings involving materials licenses, petitioners must outline how the particular radiological or other cognizable impacts from the material 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 N.R.C. 414, 426 (1997). In non-power reactor cases, a presumption of standing based upon geographic proximity may be applied where the proposed licensing action involves a significant source of radioactivity producing an obvious potential for offsite consequences. Sequoyah Fuels Corp. (Gore, Oklahoma Site), CLI-94-12, 40 N.R.C. 64, 75 n.22 (1994); In the Matter Georgia Inst. of Technology (Georgia Tech Research Reactor), CLI-95-12, 42 N.R.C. 111, 116 (1995); Armed Forces Radiobiology Research Inst. (Cobalt-60 Storage Facility), ALAB-682, 16 N.R.C. 150, 153-54 (1982).

The Restricted Release Decommissioning Plan does involve a significant source of radioactivity producing an obvious potential for offsite consequences, including direct effects upon Oklahoma's sovereign, proprietary, and economic interests.[10] Thus, the presumption

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[10] The Restricted Release Decommissioning Plan involves major alterations to the Fansteel Facility as it now exists. Further, and as previously discussed, one of the principal features of the Restricted Release Decommissioning Plan is an on-site, above-grade, disposal cell for the permanent disposal of decommissioning waste, including long-lived radioactive material such as uranium and thorium. As proposed by Fansteel, the disposal cell would have an estimated volume of over 25,500 cubic yards,

of standing in the above-captioned matter must be applied to Oklahoma due to its ownership of waters in the Arkansas River, OKLA. STAT. tit. 60, § 60, Oklahoma Water Resources Bd. v. Cent. Oklahoma Master Conservancy Dist., 464 P.2d 748 (Okla. 1968), which borders the Fansteel Facility, and which is hydrologically and geologically connected to groundwater beneath the Fansteel Facility. Exhibits 1, 2, and 5. The presumption of standing in the above-captioned matter must be also applied to Oklahoma due to its operation and management of the Webbers Falls Unit of the McClellan-Kerr Wildlife Refuge, and the Cherokee Gruber Wildlife Refuge, each which is located in close proximity to the Fansteel Facility, Exhibit 7, and Oklahoma's ownership, operation, and management of certain roads and thoroughfares in close proximity to the Fansteel Facility, namely State Highway 165, which runs immediately adjacent to the Fansteel Facility. Exhibit 1.

2. APPROVAL OF THE RESTRICTED RELEASE DECOMMISSIONING PLAN WILL CAUSE OKLAHOMA INJURY-IN-FACT

Even without the benefit of the presumption of standing discussed above, Oklahoma

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DECOMMISSIONING PLAN, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 2-1 (August 1999), a footprint of approximately six (6) acres, 2 REMEDIAL DESIGN REPORT STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA B.2.5-6 (August 1999), and a height of approximately twenty (20) feet above-grade. 1 REMEDIAL DESIGN REPORT STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 15 (August 1999). The disposal cell would be located approximately three hundred (300) yards from the Arkansas River (Webbers Falls Reservoir), and even closer to State Highway 165. Exhibits 1 and 2. Without doubt, this proposed disposal cell and the Restricted Release Decommissioning Plan, and each of them, constitute a significant source of radioactivity producing obvious potential for offsite consequences.

has standing as it will suffer injury-in-fact in the event Source Materials License No. SMB-911 is amended by NRC's approval of the Restricted Release Decommissioning Plan.

First, the disposal cell proposed by Fansteel in the Restricted Release Decommissioning Plan will harm the citizens, air, land, waters, wildlife, and natural resources of Oklahoma, as well as the health, safety, and welfare of Oklahoma's citizens who live, work, travel, and recreate near the Fansteel Facility, and who rely upon the Arkansas River for consumption, irrigation, or livestock uses. The disposal cell will contain approximately 25,500 cubic yards of long-lived radioactive decommissioning wastes, DECOMMISSIONING PLAN, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 2-1 (August 1999), and will be built directly upon native soils, without any liner and without any leachate collection system. 1 REMEDIAL DESIGN REPORT - STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 12 (August [illegible]). As described in the Restricted Release Decommissioning Plan, the disposal cell cap will only work to "minimize," and will not obviate, the intrusion of water into the disposal cell.[11] Id. at 12. Further, as described in the Fansteel's "Treatability Study Report for Stabilization and Solidification of Above-Action-Level Soil," solidification of radioactive waste materials placed in the disposal cell will also not stop the creation of leachate, but will only work to retard these consequences.

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[11] Indeed, Fansteel's contractor, Earth Sciences Consultants, Inc., has concluded that 25,850 ft^3, or 193,383.85 gallons, will leak through the bottom of the disposal cell. 2 REMEDIAL DESIGN REPORT - STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA Appendix B.2.5-7 (August 1999).

TREATABILITY STUDY REPORT FOR STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 18 (August 1999). The leachate resulting from the disposal cell proposed by Fansteel will contain uranium and thorium. Id. This fact is especially disconcerting in light of the large volume of water that will infiltrate the disposal cell and leak through the bottom of the disposal cell on an annual basis. 2 REMEDIAL DESIGN REPORT - STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA Appendix B.2.5-7 (August 1999). A release of radioactive contaminants from the disposal cell to groundwater beneath the Fansteel Facility, and therefore the Arkansas River, is inevitable.

The disposal cell will also be placed directly over test boring locations (BH-1-98, BH-2-98, BH-3-98, B-9, B-10, B-11, and B-212) and groundwater monitoring wells (MW-52S and MW-56S), providing a virtual "super highway" for contaminants to reach and contaminate groundwater at the Fansteel Facility. TREATABILITY STUDY REPORT FOR STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION LEVEL SOIL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA, Figure 2 (August 1999). The inadequate maintenance budget proposed by Fansteel in the Restricted Release Decommissioning Plan will amplify and accelerate this contamination process by not providing any realistic amount of money for maintenance and repair of the disposal cell, or for remediation of groundwater contamination caused by the disposal cell. Exhibit 9. The Restricted Release Decommissioning Plan also wholly fails to account for migration of the Arkansas River into the Fansteel Facility, and

the catastrophic failure of the disposal cell under these circumstances. Exhibits 5 and 6. Certainly, it cannot be argued that Oklahoma will not sustain injury to its interests in the event of such a catastrophic failure.

Groundwater beneath the Fansteel Facility, which is vulnerable to surface contamination, OKLAHOMA WATER RESOURCES BOARD, TECHNICAL REPORT 99-1, STATEWIDE GROUNDWATER VULNERABILITY MAP OF OKLAHOMA C-10 (1999), is hydrologically and geologically connected to the Arkansas River. Exhibit 5. As such, contamination to groundwater at the Fansteel Facility will contaminate waters owned by Oklahoma.[12] Oklahoma's citizens rely upon the Arkansas River for recreational purposes, and as a source of water for consumption, irrigation, and livestock.

The inadequate long-term maintenance and monitoring budget proposed by Fansteel in the Restricted Release Decommissioning Plan will also amplify and accelerate releases of radioactive contaminants into the air of Oklahoma. Exhibit 9. In the first instance, the disposal cell cap proposed by Fansteel is designed only to "reduce" air emissions of radioactive contaminants. 1 REMEDIAL DESIGN REPORT STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF A CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 14 (August 1999). Secondly, Fansteel's

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[12] It is important to note that a licensee's claim that "regulatory limits" are not exceeded by offsite radiological releases from a facility is not sufficient to show that a petitioner lacks standing. Atlas Corp. (Moab, Utah Facility), LBP-97-9, 45 N.R.C. 414, 425 (1997). Relative to a threshold standing determination, even minor radiological exposures resulting from a proposed licensee activity can be enough to create the requisite injury-in-fact. Id.; Gen. Pub. Utilities Nuclear Corp. (Oyster Creek Nuclear Generating Station), LBP-96-23, 44 N.R.C. 143, 158 (1996).

financial assurance for long-term maintenance of the Fansteel Facility does not include adequate or realistic funding for maintenance and repair of the disposal cell cap, and makes no budget for monitoring air samples. By not providing adequate financial funding for maintenance and repair of the disposal cell cap, Fansteel virtually assures that the disposal cell cap will not be properly maintained and will quickly degrade, thereby reducing its ability to preclude releases of radioactive contaminants to the air of Oklahoma. As a result, releases of radioactive contaminants to the air of Oklahoma is a certainty.

Thirdly, the area surrounding the Fansteel Facility is graced with natural scenic beauty, including the picturesque Arkansas River. Nearby wildlife refuges, such as the Webbers Falls Unit of the McClellan-Kerr Wildlife Refuge and the Cherokee Gruber Wildlife Refuge are a testament to the special character of the areas surrounding the Fansteel Facility. Exhibit 7. Thus, the area surrounding the Fansteel Facility is an important tourism asset, and is frequented by Oklahoma citizens and other persons for numerous recreational purposes. Consequently, tourism in this area generates important tax revenues for Oklahoma and its political subdivisions, as well as revenues for Oklahoma's citizens that make their living from the tourism industry. As a direct consequence of the Restricted Release Decommissioning Plan, and the placement of dangerous radioactive wastes in such close proximity to the Arkansas River, the recreational value of the Arkansas River will be lessened, and tourism in this area will necessarily decrease, thereby causing Oklahoma to suffer economic injury-in-fact due to the corresponding decrease in revenues. Moreover, Oklahoma's citizens will suffer injury-in-fact by losing revenues associated with a decrease

in tourism, and by losing an important and viable recreational resource.

Fourth, the restricted portion of the Fansteel Facility, by definition, will be virtually forever barred from all future use. Institutional controls at the Fansteel Facility will remove approximately 6-12 acres from all future use, economically gainful or otherwise, and will necessarily render that portion of the Fansteel Facility of no market value, and the remainder of the Fansteel Facility and real estate surrounding the Fansteel Facility of reduced market value. Oklahoma and its political subdivisions derive tax revenues from ad valorem taxation, based upon the value of real property in Oklahoma. OKLA. STAT. tit. 68, § 2801 et seq.; Exhibit 8. In this way, approval of the Restricted Release Decommissioning Plan will destroy viable real property in Oklahoma, rendering it useless, worthless, and incapable of generating ad valorem tax revenue for Oklahoma and its political subdivisions. Decommissioning the Fansteel Facility for restricted release will necessarily lower ad valorem tax revenue for Oklahoma, whereas decommissioning the entire Fansteel Facility for unrestricted release would preserve the taxable value of the Fansteel Facility, as well as the taxable value of real estate surrounding the Fansteel Facility and the ability of the Fansteel Facility to generate ad valorem tax revenue for generations to come.[13] Additionally, if approved, the Restricted Release Decommissioning Plan will also erode the tax base relied

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[13] As reflected in Exhibit 8, the Fansteel Facility has an appraised value of over $2,700,000.00. In 1998, the Fansteel Facility generated nearly $30,000 in property taxes alone in the State of Oklahoma. If decommissioned for restricted release, the Fansteel Facility will likely be valued at zero with little or no assessment. Certainly, after decommissioning under the Restricted Release Decommissioning Plan, property tax revenues will be substantially less than the ad valorem tax revenues currently generated by the Fansteel Facility.

upon by Oklahoma, and its political subdivisions, for revenue, by lowering the value of real property in the area surrounding the Fansteel Facility and by increasing area unemployment, thereby also creating the socio-economic problems that accrue with unemployment.

Lastly, the inevitable release of radioactive contaminants from the disposal cell proposed by the Restricted Release Decommissioning Plan will require major remediation activities, requiring the use of heavy equipment and trucks, and will thereby injure the roads and thoroughfares owned, operated, and maintained by Oklahoma, inhibiting the right and ability of citizens to travel. It is also within the realm of possibility that radioactive air and leachate releases, and leakage of wastes, from the disposal cell, as well as catastrophic failure of the disposal cell in the event of tornadoes, floods, earthquakes, or migration of the Arkansas River, will force Oklahoma to shut down, or permanently move these roads, such as State Highway 165, to avoid radioactive contamination.

3. ZONE OF INTERESTS

Oklahoma's interests in the Proceeding, as well as the injuries suffered by Oklahoma in the event Source Materials License No. SMB-911 is amended through approval of the Restricted Release Decommissioning Plan, fall within the zone of interests protected by the Atomic Energy Act, which include, but are not necessarily limited to: (a) widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with the public defense and security and with the health and

safety of the public, Citizens for an Orderly Energy Policy, inc. v. County of Suffolk, 604 F.Supp. 1084, 1093, (E.D.N.Y. 1985); (b) environmental and economic interests, id.; (c) protection of public health and safety, Drake v. Detroit Edison Co., 443 F.Supp. 833, 838-39 (W.D. Mich. 1978); Reyblatt v. U.S. Nuclear Regulatory Comm'n, 105 F.3d 715, 722 (D.C. Cir. 1997); and (d) public participation in the administrative process. Reyblatt v. U.S. Nuclear Regulatory Comm'n, 105 F.3d 715, 722 (D.C. Cir. 1997).[14]

4. INJURIES FAIRLY TRACEABLE TO FANSTEEL'S REQUEST FOR LICENSE AMENDMENT

As previously discussed, the determination as to whether a Request for Hearing's asserted injury is fairly traceable to the proposed licensing action is not dependent on whether the cause of the injury flows directly from the licensing action, but whether the chain of causation is plausible. In the Matter of Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Unit 3), LBP-98-22, 48 N.R.C. 149, 155 (1998). As applied, the injuries that will be suffered by Oklahoma are all fairly traceable to the Restricted Release Decommissioning Plan and any approval thereof by the NRC. Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992). All injuries-in-fact discussed above are directly related

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[14] Oklahoma interests and injuries relating to lost tax revenues, its ownership of waters, operation and management of the Webbers Falls Unit of the McClellan-Kerr Wildlife Refuge and the Cherokee Gruber Wildlife Refuge, ownership of State Highway 165, and representation of citizens living, working, traveling, and recreating in the environs of the Fansteel Facility are all within the zone of interests of the Atomic Energy Act. All injuries alleged by Oklahoma, even those financial or economic in nature, relate directly to the proposed presence/disposal of radioactive contaminants at the Fansteel Facility, and are therefore within the zone of interests of the Atomic Energy Act.

to the permanent disposal of radioactive contaminants at the Fansteel Facility as proposed by Fansteel in the Restricted Release Decommissioning Plan. The injuries that will be suffered by Oklahoma are not the result of the independent action of some third party not involved in the Proceeding. Id.

5. REDRESSABILITY

Each of the injuries-in-fact that will be suffered by Oklahoma in the event that Source Materials License No. SMB-911 is amended by NRC's approval of the Restricted Release Decommissioning Plan will be redressed in the Proceeding by a decision holding that the Restricted Release Decommissioning Plan is not in compliance with NRC rules and regulations, specifically 10 C.F.R. § 20.1403 (1999). Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992). As described in detail in section II.F. below, Oklahoma's areas of concern directly relate to whether the Restricted Release Decommissioning Plan complies with 10 C.F.R. § 20.1403 (1999), and therefore whether the amendment to Source Materials License No. SMB-911 requested by Fansteel should be granted, denied, or conditioned. Each area of concern is material to the grant or denial of the amendment to Source Materials License No. SMB-911, and makes a difference in the outcome of the Proceeding, thereby entitling Oklahoma to cognizable relief. Each area of concern is significant relative to NRC's authority to protect the public health and safety and the environment. In sum, each injury suffered by Oklahoma will be avoided if the Restricted Release Decommissioning

Plan is rejected.

E. THE PROCEEDING'S EFFECT ON OKLAHOMA'S INTERESTS

As described in sections II.C. and II.D. above, and in section II.F. below, any order that may be entered in the Proceeding will have an effect upon the property financial, sovereign, and other interests of Oklahoma.

F. OKLAHOMA'S AREAS OF CONCERN

Where a request for 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 the requestor's area of concern about the licensing activity that is the subject matter of the proceeding. 10 C.F.R. § 2.1205(e)(3) (1999). In ruling on any request for hearing, the Presiding Officer must determine whether the specified areas of concern are germane to the subject matter of the proceeding. 10 C.F.R. § 2.1205(h) (1999). An area of concern is germane if it is relevant to whether the license should be denied or conditioned. In the Matter of Hydro Resources, Inc., LBP-98-9, 47 N.R.C. 261, 280 (1998). Areas of concern must fall "generally" within the range of matters that are properly subject to challenge in the proceeding, 54 Fed. Reg. 8269, 8272 (Feb. 28, 1989), and must be rational. Babcock and Wilcox Co. (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 N.R.C. 215, 217 (1994).

At this early stage of the above-captioned matter, Oklahoma is not required to put forth an exhaustive exposition in support of the issues it wishes to litigate. Babcock and Wilcox (Apollo, Pennsylvania Fuel Fabrication Facility), LBP-92-24, 36 N.R.C. 149, 154 (1992). A comprehensive statement of issues (resembling the merits of Oklahoma's contentions) must only be provided at a later date. 10 C.F.R. § 2.1233(c) (1999); Combustion Eng'g, Inc. (Hematite Fuel Fabrication Facility, Special Nuclear Materials License No. SNM-33), LBP-89-23, 30 N.R.C. 140, 147 (1989). At this stage, Oklahoma's statement of areas of concern need only "identify" its areas of concern by providing "minimal" information to ensure that the areas of concern are germane to the proceeding. Babcock and Wilcox Co. (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania, LBP-94-12, 39 N.R.C. 215, 217 (1994). Of course, identification of an area of concern must be specific enough to allow the Presiding Officer to ascertain whether or not the matter sought to be litigated is relevant to the subject matter of the Proceeding. Sequoyah Fuels Corp., LBP-94-39, 40 N.R.C. 314, 316 (1994). It is against this legal background that the Presiding Officer must analyze and consider whether Oklahoma's areas of concern are germane to the Proceeding.

Oklahoma's areas of concern, set forth below, relate directly to Fansteel's request for an amendment to Source Materials License No. SMB-911 authorizing the decommissioning of a portion of the Fansteel Facility for restricted release, which is the licensing activity that is the subject matter of the Proceeding. It is Fansteel's burden to demonstrate that

decommissioning a portion of the Fansteel Facility for restricted release is appropriate, 62 Fed. Reg. 39058, 39069 (July 21, 1997), and for the reasons set forth below, Fansteel, through the Restricted Release Decommissioning Plan, has failed to meet this burden. Oklahoma's areas of concern therefore relate to the most fundamental issue in the Proceeding, namely whether a portion of the Fansteel Facility may be decommissioned for restricted release under 10 C.F.R. § 20.1403 (1999) as proposed in the Restricted Release Decommissioning Plan. Each area of concern is rational and directly relevant to the amendment to Source Materials License No. SMB-911 requested by Fansteel, and whether such amendment may be granted to Fansteel.

1. NRC Did Not Intend 10 C.F.R. § 20.1403 to be Applicable to the Fansteel Facility

Oklahoma's first area of concern is the applicability of 10 C.F.R. § 20.1403 (1999) to the Fansteel Facility. In promulgating 10 C.F.R. § 20.1403 (1999), NRC intended the rule to apply only to those facilities where radioactive contaminants will decay to unrestricted dose levels within a finite period of institutional control. 62 Fed. Reg. 39058, 39069 (July 21, 1997). As previously discussed in Section I.A. above, the radioactive contaminants at the Fansteel Facility will remain potentially hazardous to the public health, safety, and welfare, and the environment of Oklahoma for billions of years. Indeed, none of the radioactive constituents at the Fansteel Facility will decay to unrestricted dose levels within

any meaningfully finite period of time. 62 Fed. Reg. 39058, 39069 (July 21, 1997).[15]

When the Fansteel Facility ceased operations in 1989, facilities licensed under 10 C.F.R. Part 40 were required to be decommissioned for unrestricted release. It was not until 1997, nearly eight (8) years after the Fansteel Facility ceased operations, that NRC promulgated 10 C.F.R. § 20.1403 (1999) which allowed for license termination under restricted conditions. Fansteel cannot now be permitted to decommission the Fansteel Facility in accordance with regulations promulgated several years after it ceased operations. Fansteel's operation of Fansteel Facility has been based on the covenant that the Fansteel Facility would be restored and decommissioned for unrestricted release, and this has been a factor in the public's acceptance of the Fansteel Facility throughout its operation.[16] For these reasons, 10 C.F.R. § 20.1403 (1999) is not applicable to the Fansteel Facility, and the Fansteel Facility is not eligible for decommissioning for restricted release.

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[15] In Radiological Criteria for License Termination, 62 Fed. Reg. 39058, 39069 (July 21, 1997), NRC noted its preference for decommissioning for unrestricted release, and discussed specific examples of facilities that may be appropriate for unrestricted release, where, unlike the Fansteel Facility, dose is controlled by relatively short-lived radionuclides that will decay to unrestricted dose levels in a finite time period of institutional control (e.g., about 10-60 years).

[16] It is outrageous for Oklahoma, NRC, and the public to rely upon regulations only to have a licensee delay decommissioning long enough for there to be a change in the law favoring its position. The precedent that this approach sets will adversely affect public confidence in NRC and its licensees. This would also endanger the prospect for public acceptance of future NRC-licensed facilities and the credibility of the NRC licensing process. NRC has an interest in preserving the credibility of this process so that everyone can benefit from peaceful use of nuclear power and radioactive materials.

2. The Restricted Release Decommissioning Plan Fails to Demonstrate that Further Reductions in Residual Radioactivity Necessary to Comply With 10 C.F.R. § 20.1402 at the Fansteel Facility Would Not Result in Net Public or Environmental Harm and are not ALARA

Under NRC's regulations, the Fansteel Facility is appropriate for license termination under restricted conditions only if Fansteel demonstrates that further reductions in residual radioactivity necessary to comply with 10 C.F.R. § 20.1402 (relating to unrestricted use) would result in net public or environmental harm or are not being made because the residual levels associated with restricted conditions are as low as reasonably achievable (ALARA). 10 C.F.R. § 20.1403(a). The Restricted Release Decommissioning Plan wholly fails to demonstrate either of these conditions as required by NRC, and therefore the Fansteel Facility is not acceptable for license termination under restricted conditions.

In Fansteel's "Summary Report ALARA Analysis Residential and Industrial Scenarios," and again in the Restricted Release Decommissioning Plan, Fansteel attempts to demonstrate that residual radioactivity from the disposal cell will be reduced to a level that is ALARA. However, Fansteel's ALARA analysis contains serious flaws that call into question the legitimacy of its ALARA analysis. For example, Fansteel used an incorrect figure for population density that is an order of magnitude less than both the population density of the area surrounding the Fansteel Facility and NRC's acceptable input parameter for population density set forth in its Draft Regulatory Guide DG-4006, entitled Demonstrating Compliance with the Radiological Criteria for License Termination (August

1998). Further, Fansteel utilized an excessively low figure for the area of the disposal cell (12,223.5m^2), whereas a more accurate figure (ranging between 24,281m^2 (6 acres) and 48,562m^2(12 acres)), should have been used.[17] Moreover, use of the monetary discount figures of 3% and 7% is not appropriate in relation to the Fansteel Facility as the radioactive constituents that Fansteel proposes to place in the disposal cell, namely uranium and thorium, are long-lived radionuclides that will not significantly decay in one billion years, much less 1,000 or 100 years. Additionally, Fansteel used a figure for the "concentration" input in its ALARA analysis relating to thorium, established in Appendices G through L of its "Summary Report ALARA Analysis Residential and Industrial Scenarios," that is indistinguishable from the background, but provided no justification whatsoever for utilizing such a blatantly unrealistic figure. See 1 REMEDIATION ASSESSMENT, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 4-24 (1993).

Fansteel also incorrectly calculated the cost side of the ALARA analysis. Ignoring Draft Regulatory Guide DG-4006, Fansteel included the values for long-term maintenance[18] and NRC review as "costs." Draft Regulatory Guide DG-4006 clearly demonstrates that these figures are to be calculated as "benefits," which makes conceptual sense. Fansteel made the same mistake with property values, but compounded the problem by inserting the

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[17] In its HELP Model analysis, Fansteel assumes an area for the disposal cell of 6.75 acres, which is far greater than the figure it used in its ALARA analysis. 2 REMEDIAL DESIGN REPORT STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF A CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA B.2.5-6 (August 1999).

[18] A figure that is abhorrently low. This is discussed in Section II.F.5.

value of the portion of the Fansteel Facility to be decommissioned for restricted release. Rather, as set forth in Draft Regulatory Guide DG-4006, property values are to be considered on the "benefit" side of the equation, and real estate agents are to be consulted to determine the effect of decommissioning for restricted release on property values. Fansteel also overstated the amount it would cost to decommission the Fansteel Facility for unrestricted release.

Lastly, Fansteel's entire ALARA analysis is entirely too simplified to be of any analytical value. Values such as litigation expenses, lost tax revenues (ad valorem tax, sales tax, employment tax, etc.), current and future land use, the cultural, historic, recreational, industrial, and ecologic value of the land surrounding the Fansteel Facility, and the unreasonable decay period associated with the radioactive wastes at the Fansteel Facility, as well as the substantial risks that will accrue from disposal of long-lived radioactive wastes at the Fansteel Facility, all must be included in any meaningful and accurate ALARA analysis. Fansteel certainly failed to include in its ALARA analysis the potential value (societal, economic, etc.) to the State of Oklahoma, and its political subdivisions, of the unrestricted use of all of the Fansteel Facility. Radiological Criteria for License Termination, 62 Fed. Reg. 39058, 39069 (July 21, 1997). In its ALARA analysis, Fansteel also failed to account for the costs of restricting the flow of the Arkansas River into the disposal cell (which could be an astronomical, continuing expense), and failed to account for opportunity costs to the State of Oklahoma through losing the option to allow the Arkansas

River to follow its natural course. Fansteel's ALARA analysis is nothing but a "straw man" created to justify a cheap and ineffectual decommissioning.[19]

Oklahoma seeks the opportunity to demonstrate that further reductions in residual radioactivity associated with restricted conditions at the Fansteel Facility are not ALARA, and that under no circumstances can it be that there is net public or environmental harm associated with decommissioning the Fansteel Facility in accordance with NRC regulations governing unrestricted release. On the contrary, for numerous reasons, net public or environmental harm will directly result from failure to decommissioning the Fansteel Facility for unrestricted release.[20] Current and future land use, the cultural, historic, recreational,

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[19] There will be an incremental cost to society whatever decommissioning option is implemented. Moving the radioactive material at the Fansteel Facility to an appropriate "off-site" disposal site will necessarily translate into some transportation costs. What Fansteel has carefully and purposely ignored in its ALARA analysis is that if the material is permanently disposed of on the Fansteel Facility, there will be considerable costs and impacts to Oklahoma and others, including permanent loss of use of desirable real estate, potential exposure of residents, potential contamination of groundwater and other state resources, problems associated with the interaction of the Arkansas River and the disposal cell, and radon emissions. Because of the extremely long half-life of this material, these impacts will continue ad infinitum. Thus, Fansteel's Restricted Release Decommissioning Plan is superficially attractive. If the radioactive wastes at the Fansteel Facility were properly disposed of at an appropriate "off-site" facility, long-term impacts, and their associated costs, would be minimized. An appropriate "off-site" disposal location will have been selected, and approved by regulators, for its suitability, usually in an arid region, with no impact on groundwater, and little or no potential exposure to the public. On the other hand, approval of the Restricted Release Decommissioning Plan will have an immense impact on Oklahoma. Being labeled as a "radioactive waste site" will adversely effect Oklahoma and its political subdivisions. By leaving the radioactive waste onsite as a source for additional groundwater contamination, there will be no opportunity for groundwater impacts to attenuate. The burden of preventing interaction with the Arkansas River will be an ongoing necessity, as will the maintenance of the cap and disposal cell.

[20] Fansteel may argue that the Restricted Release Decommissioning Plan does not need include any analysis of ALARA or net public or environmental harm, based upon language in section 3.1.5 of Draft Regulatory Guide DG-4006 relating to soil contamination. However, the environmental issues surrounding the Fansteel Facility extend far beyond soil contamination, and include groundwater,

industrial, and ecologic value of the land surrounding the Fansteel Facility, the unreasonable decay period associated with the radioactive wastes at the Fansteel Facility, as well as the substantial risks that will accrue and linger ad infinitum from disposal of long-lived radioactive wastes at the Fansteel Facility all reveal that net public and environmental harm will result from decommissioning the Fansteel Facility for restricted release.[21]

3. The Restricted Release Decommissioning Plan Fails to Demonstrate Compliance with 10 C.F.R. § 20.1403(e)

Fansteel must demonstrate that there is reasonable assurance that residual radioactivity at the Fansteel Facility has been reduced so that if institutional controls were no longer in effect, the total effective dose equivalent (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. 10 C.F.R. § 20.1403(e). The Restricted Release Decommissioning Plan, however, fails to adequately make this demonstration.

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proximity to Arkansas River, likelihood of migration of the Arkansas River into the Fansteel Facility, current and future land use, socio-economic issues, as well as the cultural historic, recreational, and ecologic value of the land surrounding the Fansteel Facility. Results of a generic ALARA analysis are not applicable to the Fansteel Facility.

[21] The minimal risks associated with a few short years of transporting long-lived radioactive wastes to a properly located and designed disposal facility pale in comparison to the 140 billion year threat of harm to the citizens and environment of Oklahoma resulting from burial of radioactive waste at the Fansteel Facility. In the long run, the health, safety, and welfare of the public are better protected by requiring the entire Fansteel Facility to be decommissioned for unrestricted use.

Errors in the modeling performed by Fansteel, including the assumptions and input parameters used in such modeling, render the modeling in the Restricted Release Decommissioning Plan unsubstantiated. This is especially true as to modeling relating to radiation doses from the disposal cell in the event that no cap exists on the disposal cell, which may exceed a total effective dose equivalent (TEDE) greater than 100 mrem per year, all of which must be considered in light of the inadequate long-term maintenance budget proposed by Fansteel. Therefore, the Restricted Release Decommissioning Plan fails to provide reasonable assurances that residual radioactivity at the Fansteel Facility has been reduced so that if institutional controls were no longer in effect at the Fansteel Facility, the total effective dose equivalent (TEDE) from residual radioactivity distinguishable from background to the average member of the critical group would be in compliance with 10 C.F.R. § 20.1403(e).

4. Institutional Control and Long-term Custodianship at the Fansteel Facility

The Fansteel Facility will only be considered acceptable for license termination under restricted conditions if Fansteel has made provisions for legally enforceable institutional controls that provide reasonable assurance that the total effective dose equivalent (TEDE) from residual radioactivity distinguishable from background to the average member of the critical group will not exceed 25 mrem per year. 10 C.F.R. § 20.1403(b). The Restricted Release Decommissioning Plan, however, fails to adequately demonstrate legally enforceable

institutional controls. The institutional controls proposed by Fansteel in the Restricted Release Decommissioning Plan cannot reasonably be expected to be effective in the near term, much less for 1,000 years or for the enormous lengths of time associated with the half-lives of the long-lived radioactive contaminants at the Fansteel Facility. In no case can it be said that the institutional controls proposed by Fansteel in the Restricted Release Decommissioning Plan are durable enough to provide an appropriate level of protection of public health and safety for the extreme amount of residual radioactivity Fansteel proposes to permanently place at the Fansteel Facility, especially in light of the possibility that TEDE may exceed 100 mrem per year as discussed in Section II.F.3 above.

Fansteel has yet to definitively identify the long-term custodian of the Fansteel Facility, which is a variable that bears directly on the acceptability of the Fansteel Facility for restricted release. Fansteel, in the Restricted Release Decommissioning Plan, has also failed to adequately map out long-term custodial care of the Fansteel Facility. Maintenance and replacement of the disposal cell, rip-rap, fence, etc., are not adequately addressed. It is clear that inadequate maintenance at the Fansteel Facility will directly impact the TEDE, a fact that Fansteel has not accounted for. Deed restrictions at the Fansteel Facility, including those proposed by Fansteel, are of and doubtful value for long-term institutional control, especially for the extreme lengths of time at issue in the Restricted Release Decommissioning Plan. In sum, the institutional controls proposed by Fansteel in the Restricted Release Decommissioning Plan are not in compliance with NRC rules and

regulations, and are of doubtful effectiveness for the time frame at issue in the Restricted Release Decommissioning Plan.

5. The Restricted Release Decommissioning Plan Fails to Comply with NRC Financial Assurance Requirements

In light of the long-lived radioactive isotopes, the amount of radioactivity, the characteristics of the residual radioactivity, and the site-specific exposure scenarios, pathways, and parameters at the Fansteel Facility, the financial assurance proposed by Fansteel in the Restricted Release Decommissioning Plan is insufficient to enable an independent third party to assume and carry out responsibilities for control and maintenance of Fansteel Facility as required by 10 C.F.R. § 20.1403(c). Exhibit 9. As set forth in the Restricted Release Decommissioning Plan, Fansteel erroneously assumes that the annual costs of long-term site control is $7,300.00 per annum. Exhibit 9. Examples of items not included in Fansteel's financial assurance calculations are the following items that will certainly bear upon the funds necessary for any long-term stewardship of the Fansteel Facility: (a) repair of disposal cell; (b) replacement of disposal cell; (c) realistic costs for repair of disposal cell cap;[22] (d) replacement of disposal cell cap; (e) short- and long-term testing, analysis, and monitoring of disposal cell performance;[23] (f) repair of groundwater

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[22] See also footnote 25 below, and Exhibit 10.

[23] As previously discussed, inadequate cell cap maintenance could result in a total effective dose equivalent (TEDE) greater than 100 mrem per year. Further, long-term monitoring is essential toward any determination as to whether, and what type of, maintenance or repair is needed. Without long-term

monitoring systems; (g) replacement of groundwater monitoring systems; (h) future remediation, decontamination, and decommissioning; (i) additional cleanup in the event radiological criteria are not met and residual radioactivity at Fansteel Facility poses a significant threat to public health and safety; (j) collection and remediation of leachate from disposal cell; (k) engineered barrier replacement; (l) emergency planning and training; (m) site security; (n) funding for enforcement of institutional controls;[24] and (o) the costs of preventing the migration and flow of the Arkansas River into the disposal cell at the Fansteel Facility.

It is imperative that the corpus of the long-term custodianship fund to be created by Fansteel be adequate so that it is never necessary to deplete the corpus to take care of annual commitments. Interest alone on the corpus of the fund created by Fansteel must be sufficient to fund all long-term costs of controlling and maintaining the Fansteel Facility. Further, Fansteel failed to make any provision in the long-term control budget for unforeseen problems, acts of God, or other force majeure events. Moreover, as the long-term custodian for the Fansteel Facility has not been definitively identified, the sufficiency of the financial assurances proposed by Fansteel relating to long-term site control and maintenance cannot be known; the sufficiency of any financial assurance relating to long-term site control and

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monitoring, long-term control and maintenance is illusory.

[24] Financial assurance is required so that the long-term custodian can control and maintain the Fansteel Facility. 10 C.F.R. § 20.1403(e)(2)(iii) (1999). Without adequate funding from Fansteel, a custodian will not be able to enforce institutional controls, which is an indispensable part of controlling and maintaining the Fansteel Facility.

maintenance depends upon the nature and identity of the long-term custodian of the Fansteel Facility.

6. Design and Sufficiency of the Disposal Cell Proposed in the Restricted Release Decommissioning Plan

The disposal cell proposed by Fansteel in the Restricted Release Decommissioning Plan will be built directly on native soil, without any liner or leachate collection system. All disposal cells leak, and the one proposed by Fansteel is no different. As described in the Restricted Release Decommissioning Plan, the disposal cell cap will only work to "minimize," and will not obviate, the intrusion of water into the disposal cell. 1 REMEDIAL DESIGN REPORT - STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 12 (August 1999). As acknowledged by Fansteel's own contractor, Earth Sciences Consultants, Inc., a release of contaminants from the disposal cell is inevitable. Earth Sciences Consultants, Inc., has concluded that 25,850 ft^3, or 193,383.85 gallons, will leak through the bottom of the disposal cell every year. 2 REMEDIAL DESIGN REPORT - STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA Appendix B.2.5-7 (August 1999). This leachate will contain the radioactive contaminants uranium and thorium. TREATABILITY STUDY REPORT FOR STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 18 (August 1999).

The inadequate maintenance budget proposed by Fansteel in the Restricted Release Decommissioning Plan will amplify and accelerate this contamination process as no long-term budget exists for realistic maintenance and repair of the disposal cell, and no long-term budget exists for remediation of groundwater contamination caused by the disposal cell. Exhibit 9. By not providing adequate financial funding for maintenance, repair, and replacement of the disposal cell cap, Fansteel virtually ensures that the disposal cell cap will not be properly maintained and will quickly degrade, thereby reducing its ability to preclude infiltration of water. It is not a question of whether radioactive contaminants will leach from the disposal cell, but rather a question of when and to what extent.[25]

Fansteel's disposal cell will also be placed directly over test boring locations (BH-1-98, BH-2-98, BH-3-98, B-9, B-10, B-11, and B-212) and groundwater monitoring wells (MW-52S and MW-56S), thereby providing a virtual "super highway" for contaminants to reach and contaminate groundwater at the Fansteel Facility. TREATABILITY STUDY REPORT

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[25] Exhibit 10 is included here as an example. These photographs are of disposal cells 12 and 13 at the Lone Mountain Facility near Waynoka, Oklahoma. In each case, the damage to the disposal cell caps shown in the photographs was caused by precipitation events, and the disposal cell caps were approximately 1 year old (disposal cell 12) and less than one year old (disposal cell 13). It is estimated that the cap on disposal cell 12 will cost as much as $750,000.00 to repair, and the cap on disposal cell 13 will cost as much as $1,500,000.00 to repair. Of course, there are distinctions between the disposal cell caps at the Lone Mountain Facility and the disposal cell cap proposed by Fansteel. Chief among the distinctions is that the Lone Mountain Facility disposal cell caps are much more substantial than that proposed by Fansteel, and are at a facility located in an area that is much more arid that the area around the Fansteel Facility. The point of this exercise is not that a similar catastrophe is inevitable at the Fansteel Facility, but rather that problems have occurred at other facilities in Oklahoma, requiring huge sums of money to correct, all in time periods much shorter than the 1,000 years that Fansteel must work within. Thus, in light of the above, the inadequate maintenance and repair budget proposed by Fansteel is a glaring problem. Damage to the disposal cell cap at the Fansteel Facility would all but deplete the corpus of the long-term custodianship fund proposed by Fansteel.

FOR STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION LEVEL SOIL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA, Figure 2 (August 1999). Plugging these wells will not prevent contamination to groundwater in light of the extreme lengths of time that are at issue in this matter. Rather, these plugged wells will provide a direct pathway for further groundwater contamination.

The potential for groundwater contamination from the disposal cell proposed by Fansteel cannot be ignored. The design and location of the disposal cell proposed by Fansteel is inadequate, and jeopardizes the groundwater beneath the Fansteel Facility. Due to the location of the Fansteel Facility, groundwater beneath the Fansteel Facility is vulnerable to contamination. Exhibit 5. Indeed, under Oklahoma law, even municipal solid waste landfills are not allowed to be sited over alluvium and terrace deposits, such as those underlying the Fansteel Facility. OKLA. STAT. tit. 27A, 2-10-501(A)(1); OAC 252:510-7-2. Exhibit 5.

Fansteel also failed to account for and address the probability of migration of the Arkansas River into the Fansteel Facility, which is likely due to the extreme lengths of time at issue in this matter.[26] Over time, rivers change course. For example, the Red River, which was originally specified as the boundary between Oklahoma and Texas, has changed its course sufficiently that boundary disputes between Texas and Oklahoma occur. This has

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[26] Exhibits 4 and 5 are probative on this issue. Among other things, Exhibit 5 reflects the migration of the Mississippi River during a 1,000 year period, i.e., from course 1 to course 3. Further, Exhibit 4 indicates the likelihood of the Arkansas River's migration. Yellow coloring near the Arkansas River indicates alluvium and terrace deposits, which reflects the historic pathways of the Arkansas River.

happened in the relatively brief period since Oklahoma became a state in 1907. Studies of the Mississippi River have demonstrated that in a comparatively short period of time, the course of the Mississippi River has shifted by many miles. Exhibit 6. Over extreme lengths of time at issue in this matter, it is inevitable that the Arkansas River will shift into the nearby disposal cell, erode the cell structure, and later erode the matrix containing the waste contained therein. As reflected by the alluvium and terrace deposits shown in Exhibit 5, the course of the Arkansas River has varied widely over time. This will have unpredictable effects. Since the Arkansas River flows into the State of Arkansas and then into the Mississippi River, there could be significant consequences, not only in Oklahoma, but throughout a very wide region. It is obvious that a catastrophic failure of the disposal cell in this matter would immediately affect the air, land, waters, wildlife, and natural resources of Oklahoma, as well as the health, safety, and welfare of its citizens. Such a failure would also result in economic hardship from decreased recreational use, decreased tourism, inability to use groundwater in the vicinity of the Fansteel Facility and waters in the Arkansas River for private and public consumption, irrigation, and livestock use, and a hindrance to the navigability of the Arkansas River (McClellan-Kerr Arkansas River Navigation System).

The inadequate long-term maintenance and monitoring budget will also amplify and accelerate releases of radioactive contaminants into the air of Oklahoma. In the first instance, the disposal cell cap proposed by Fansteel is designed only to "reduce" air emissions of radioactive contaminants. 1 REMEDIAL DESIGN REPORT STABILIZATION AND

SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF A CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 14 (August 1999). Secondly, Fansteel's financial assurance for long-term maintenance of the Fansteel Facility does not include adequate funding for realistic maintenance and repair of the disposal cell cap, and makes no budget for monitoring air samples. Exhibit 9. By not providing adequate financial funding for maintenance and repair of the disposal cell cap, Fansteel virtually ensures that the disposal cell cap will not be properly maintained and will quickly degrade, thereby reducing its ability to preclude releases of radioactive contaminants to the air of Oklahoma. As a result, releases of radioactive contaminants to the air of Oklahoma is a certainty.

Additionally, Fansteel proposes to place the disposal cell directly in the probable maximum floodplain (PMF). 1 REMEDIAL DESIGN REPORT STABILIZATION AND SOLIDIFICATION OF ABOVE-ACTION-LEVEL SOIL AND CONSTRUCTION OF A CONTAINMENT CELL, FANSTEEL, INC. - MUSKOGEE, OKLAHOMA 15 (August 1999); Exhibit 11. Thus, in the event of a breach of the Fort Gibson Dam, the disposal cell will be inundated by flood water. The Restricted Release Decommissioning Plan wholly-fails to account for other dams above the Fansteel Facility, such as the dams at Grand Lake, Keystone, Hudson, and Pensacola, or the cumulative impacts of dam breaches or maximum spillway discharges from all of the dams above the Fansteel Facility, including the dam at Oologah.

Lastly, Fansteel proposes to place the disposal cell near an existing 24" sewer main and a gas line. Exhibit 12. The Restricted Release Decommissioning Plan, however, fails

to account for this placement and the damage that may occur to the integrity of the disposal cell in the event of repair or replacement of these lines. The Restricted Release Decommissioning Plan also fails to address the effect of the disposal cell on these lines, and whether radioactive leachate from the cell will infiltrate these lines, whether the holders of easements relating to these lines have been apprised of Fansteel's proposed actions, and whether the City of Muskogee's sewer system is capable of handling radioactive waste.

The Fansteel Facility is therefore not suitable for isolation of dangerous radioactive wastes. The disposal cell site does not provide sufficient depth to groundwater. In no case can it be said that the disposal cell site is designed and located to minimize the contact of water with waste during storage. Rather than selecting a disposal site where future population growth and development will not affect the effectiveness of the disposal cell, Fansteel opted to utilize a portion of its land for permanent disposal of radioactive waste.[27] In sum, placement of the disposal cell in such a dangerous location is not in accordance with the spirit or letter of the requirements of 10 C.F.R. Part 20 or Part 61. It is rather a matter of convenience, expediency, and undertaking the cheapest possible decommissioning.

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[27] A basic principle of health physics and ALARA is that operations must be conducted to avoid the spread (or further spread) of radioactive contamination. Fansteel's Restricted Release Decommissioning Plan all but ignores this manifest principle, increasing the radiologically-impacted area and further removing land from productive use in Oklahoma, by siting the disposal cell on an area of the Fansteel Facility that is virtually uncontaminated. This spreads contamination and violates the principle of ALARA.

G. TIMELINESS OF REQUEST FOR HEARING

Where a request for 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 the circumstances establishing that the request for hearing is timely. 10 C.F.R. § 2.1205(e)(4) (1999). As set forth above, the Notice was published in the Federal Register on September 14, 1999. Exhibit 4. Pursuant to 10 C.F.R. § 2.1205(a), (d)(1) (1999), any person whose interest may be affected by the Proceeding for the amendment of Source Materials License No. SMB-911 authorizing the decommissioning of the Fansteel Facility may file a request for a hearing within thirty (30) days of the NRC's publication of the Notice, or by October 14, 1999. As set forth in the Certificate of Service below, this Request for Hearing was deposited in the United States mail on October 14, 1999, and was therefore filed on October 14, 1999. Pursuant to 10 C.F.R. § 2.1203(b)(2) (1999), filing by mail is complete as of the time of deposit in the mail.

H. DESIGNATION FOR PURPOSES OF SERVICE

Pursuant to 10 C.F.R. § 2.1203(c) (1999), service of all pleadings, documents, and correspondence relating to the Proceeding may be served upon Stephen L. Jantzen, Assistant Attorney General, Office of the Attorney General, 2300 North Lincoln Boulevard, Suite 112, Oklahoma City, Oklahoma, 73105.

III. CONCLUSION

The Attorney General of Oklahoma, W.A. Drew Edmondson, by and through the undersigned, Stephen L. Jantzen, Assistant Attorney General, on behalf of the State of Oklahoma, hereby prays that its Request for Hearing be granted, and that the State of Oklahoma be granted a hearing relating to Fansteel's request for an amendment to Source Materials License No. SMB-911 authorizing the decommissioning of a portion of the Fansteel Facility for restricted release pursuant to 10 C.F.R. § 20.1403 (1999).

Respectfully Submitted,

W.A. DREW EDMONDSON
ATTORNEY GENERAL OF OKLAHOMA

STEPHEN L. JANTZEN
ASSISTANT ATTORNEY GENERAL
ENVIRONMENTAL PROTECTION UNIT
2300 N. Lincoln Blvd., Suite 112
Oklahoma City, Oklahoma 73105
Telephone: (405) 521-3921
Telefax: (405) 521-6246

Dated: October 14, 1999

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the 14th day of October, 1999, a true and correct copy of the foregoing Request for Hearing was transmitted by certified U.S. mail, return receipt requested, to the following:

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

(U.S. certified mail no. Z360576760)

Office of the Secretary
Rulemakings and Adjudications Staff
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

(U.S. certified mail no. Z360576763)

Office of the General Counsel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

(U.S. certified mail no. Z360576761)

Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

(U.S. certified mail no. Z360576764)

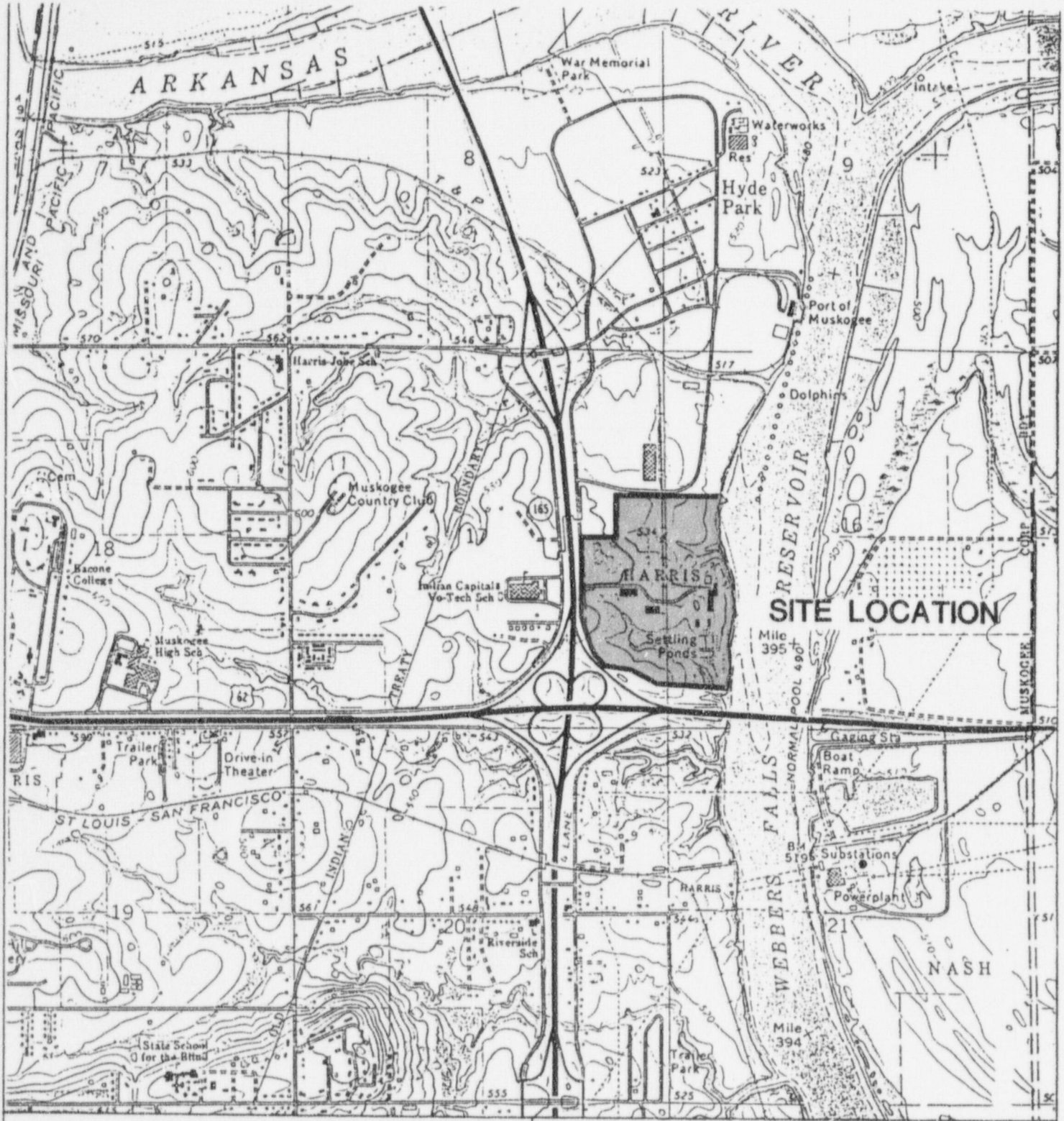
Mr. Michael Adjodha
U.S. Nuclear Regulatory Commission
Two White Flint North
Mail Stop 8D14, Room 8D20
11545 Rockville Pike
Rockville, MD 20852-2738

(U.S. certified mail no. Z360576762)

Ms. Leslie Fields
U.S. Nuclear Regulatory Commission
Two White Flint North
Mail Stop 8D14, Room 8D20
11545 Rockville Pike
Rockville, MD 20852-2738

(U.S. certified mail no. Z360576765)

Stephen L. Jantzen



SCALE -- FEET

0 2000

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FIGURE 1

SITE LOCATION MAP

REFERENCE
USGS 7.5-MIN TOPOGRAPHIC QUADRANGLE
NORTHEAST MUSKOGEE, OKLAHOMA
DATED 1974
SCALE 1:24000.

PREPARED FOR
FANSTEEL, INC.
MUSKOGEE, OKLAHOMA

REVISION	DATE	DESCRIPTION

APPROVED
CHECKED
DRAWN JWK/061593
DRAWING NUMBER
0111-A11

Earth Sciences Consultants, Inc.

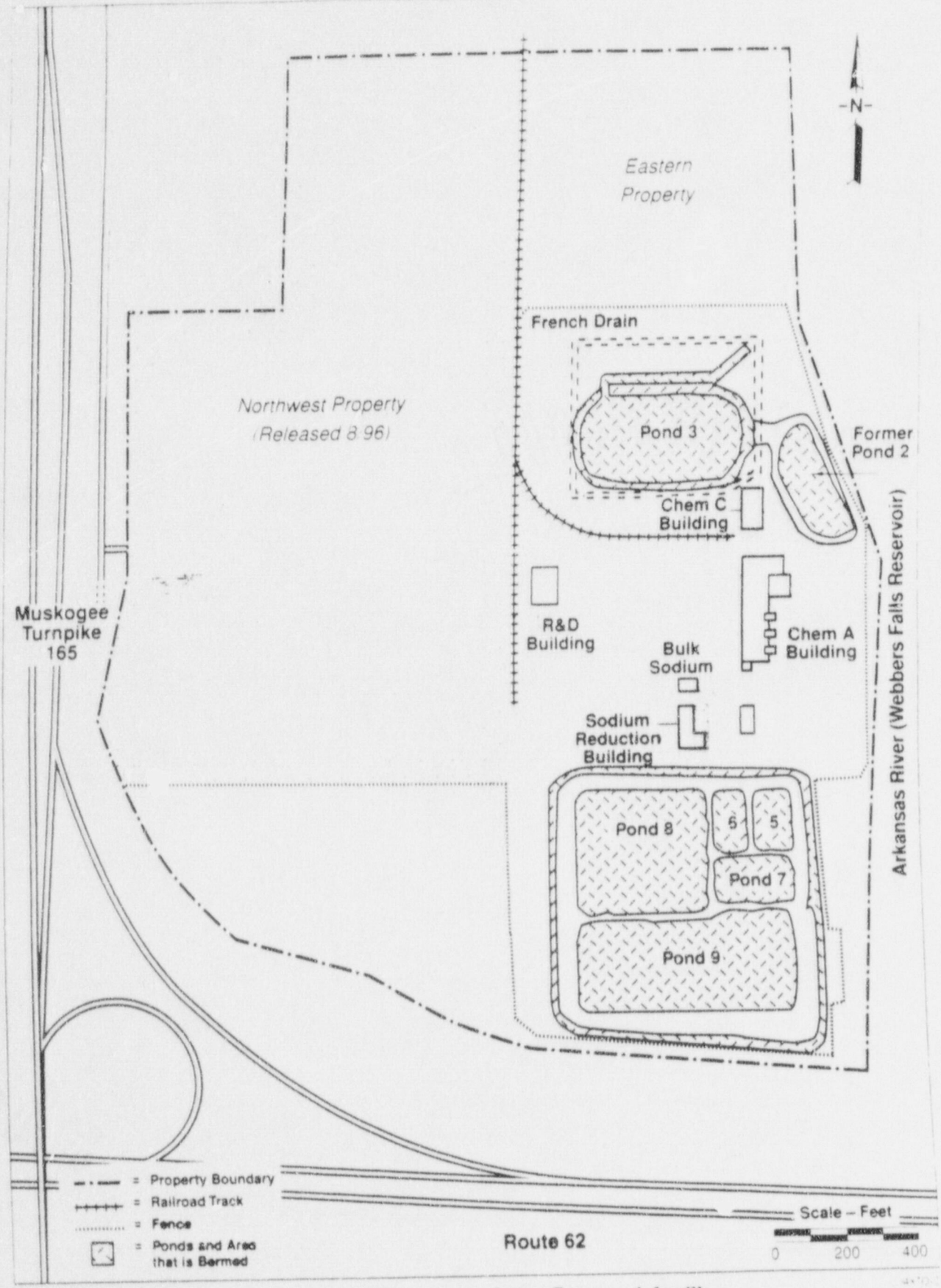


Figure 1.1 Plot plan of the Fansteel facility

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 16, 1999

Stephen L. Jantze

RECEIVED
APR 16 1999
ATTORNEY GENERAL'S OFFICE

MEMORANDUM TO: Theodore S. Sherr, Chief
Licensing and International
Safeguards Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

THRU: Charles Emeigh, Section Chief
Licensing Section
Licensing and International
Safeguards Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

M Adams for
4/16/99

FROM: Michael E. Adjodha
Licensing Section
Licensing and International
Safeguards Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

SUBJECT: SUMMARY OF FANSTEEL MEETING

On April 13, 1999, representatives of Fansteel, Inc., met with the Division of Fuel Cycle Safety and Safeguards (FCSS) and the Division of Waste Management (DWM) staff at the Nuclear Regulatory Commission (NRC) headquarters in Rockville, Maryland. The individuals attending the meeting are listed on the attachment.

The purpose of the meeting was to discuss the deficiencies identified in the NRC's request for additional information (RAI) letter dated March 31, 1999, regarding Fansteel's plans for decommissioning their site.

Representatives of Fansteel sought guidance from the NRC staff on each of the questions raised in the RAI. The NRC staff provided necessary clarifications for Fansteel.

Through the course of the meeting, the following was agreed upon:

- separate decommissioning plans will be submitted for an SDMP plan and for a containment cell plan,
- Fansteel will respond to the RAI by late May or early June with the SDMP plan and a few weeks following with the containment cell plan,
- The Quality Assurance Project Plan (QAPP) needs to be summarized but need not be submitted for plan approval,
- the decommissioning plans will be revised to definitively state that there are no mixed wastes, and
- Fansteel will remove reference to MARSSIM in the SDMP plan, in conformance with NUREG-5849.

The follow-up action items were as follows:

- the NRC will provide an answer to Fansteel on whether or not their financial assurance funding plan needs to be split,
- Fansteel needs to incorporate the results of the 1993 Remedial Assessment into the decommissioning plan,
- Fansteel needs to have some procedures available of how decontaminated sites will not be re-contaminated, and
- Fansteel will need to submit to the NRC a letter requesting for an extension of time beyond the 30 days specified in the March 30, 1999, RAI.

John Hunter, Fansteel Plant Manager, stated that the containment cell is an essential part of their overall plan for decommissioning the site.

The duration of meeting was approximately two hours.

Docket 40-7580
License SMB-911

Attachment: As stated

cc: Mr. John J. Hunter
Corporate Manager of Process Engineering
and Facilities Construction
Fansteel, Inc.
Number Ten Tantalum Place
Muskogee, OK 74403-9296

Meeting with
Fansteel, Inc.,

Date: April 13, 1999
Place: O-16B6

Name	Organization	Phone Number
Michael E. Adjodha	NRC/NMSS/FCSS	301-415-8147
Mary Adams	NRC/NMSS/FCSS	301-415-7249
Stephen L. Jantzen	Oklahoma Atty. General	405-521-3921
Joseph Harrick	Earth Sciences Consultants	724-733-3000
M. Dave Tourdot	Earth Sciences Consultants	724-733-3000
Gerry Williams	Earth Sciences Consultants	724-733-3000
Keith Mahosky	Earth Sciences Consultants	724-733-3000
John J. Hunter	Fansteel, Inc.	918-687-6303
John Englert	Kirkpatrick & Lockhart	412-355-8331
Chuck Emeigh	NRC/NMSS/FCSS	301-415-7836
Larry Bell	NRC/NMSS/DWM	301-415-7302
Leslie Fields	NRC/NMSS/FCSS	301-415-6267
Ronald B. Uleck	NRC/NMSS/DWM	301-415-6722
John Hickey	NRC/NMSS/DWM	301-415-7234
Louis Carson	NRC/RIV/DNMS	817-860-8221
Garrett Smith	NRC/NMSS/FCSS	301-415-8118

Attachment

sub nom Kirk v. Mullen, 749 F.2d 297 (6th Cir. 1984).

Consequently, Judge Randall recommended that if the Deputy Administrator determines that the DEA precedent remains viable, Respondent's DEA Certificate of Registration should be revoked.

The Deputy Administrator agrees with Judge Randall that the plain language of U.S.C. 824(a)(3) states that a DEA registration may be revoked if a registrant's state authorization is revoked, suspended, or denied by competent state authority. However, this leaves DEA in a dilemma since pursuant to 21 U.S.C. 823(f), DEA can only register a practitioner if he is authorized by the state to handle controlled substances, and there is no provision in the statute to deal with situations where a practitioner is no longer authorized by the state, yet his state registration was not revoked, suspended, or denied.

Since state authorization was clearly intended to be a prerequisite to DEA registration, Congress could not have intended for DEA to maintain a registration if a registrant is no longer authorized by the state in which he practices to handle controlled substances due to the expiration of his state license. Therefore, it is reasonable for DEA to interpret that 21 U.S.C. 824(a)(3) would allow for the revocation of a DEA Certificate of Registration where, as here, a registrant's state authorization has expired.

Therefore, the Deputy Administrator concludes that Respondent is not currently authorized to handle controlled substances in New Mexico, and that consistent with DEA precedent, DEA cannot maintain his registration in that state.

Since DEA does not have the authority to maintain Respondent's DEA registration because he is not currently authorized to handle controlled substances in New Mexico, the Deputy Administrator concludes that it is unnecessary to determine whether Respondent's DEA registration should be revoked based upon the other grounds alleged in the Order to Show Cause.

Accordingly, the Deputy Administrator of the Drug Enforcement Administration, pursuant to the authority vested in him by 21 U.S.C. 823 and 824 and 28 CFR 0.100(b) and 0.104, hereby orders that DEA Certificate of Registration BL 1242750, previously issued to William D. Levitt, D.O., be, and it hereby is, revoked. The Deputy Administrator further orders that any pending applications for renewal of such registration, be, and they hereby are, denied. This order is effective October 14, 1999.

Dated: August 24, 1999.

Donnie R. Marshall,

Deputy Administrator.

[FR Doc. 99-23668 Filed 9-13-99; 8:45 am]

BILLING CODE 4410-09-M

NATIONAL CREDIT UNION ADMINISTRATION

Sunshine Act Meetings

TIME AND DATE: 2:30 p.m., Thursday, September 16, 1999.

PLACE: Board Room, 7th Floor, Room 7047, 1775 Duke Street, Alexandria, Virginia 22314-3428.

STATUS: Open.

MATTERS TO BE CONSIDERED:

1. Proposed Amendment to IRPS 99-1: Establishing Low-Income Member Service Requirement.
2. Two (2) Requests from Federal Credit Unions to Convert to Community Charters.
3. Request from a Corporate Federal Credit Union for a National Field of Membership Amendment.
4. Request for a Merger of Two Corporate Federal Credit Unions.
5. Proposed Rule: Amendment to Part 701, NCUA's Rules and Regulations, Share Overdraft Accounts.
6. Proposed Rule: Amendments to Parts 724 and 745, NCUA's Rules and Regulations, Individual Retirement Accounts in Puerto Rico Federal Credit Unions.
7. Board Resolution to Clarify Board Policy and Agency Procedures on Community Charter Conversions as per IRPS 99-1.

RECESS: 3:45 p.m.

TIME AND DATE: 4:00 p.m., Thursday, September 16, 1999.

PLACE: Board Room, 7th Floor, Room 7047, 1775 Duke Street, Alexandria, Virginia 22314-3428.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Administrative Action under Part 704 of NCUA's Rules and Regulations. Closed pursuant to exemption (8).
2. Two (2) Personnel Matters. Closed pursuant to exemptions (2) and (6).

FOR FURTHER INFORMATION CONTACT: Becky Baker, Secretary of the Board, Telephone (703) 518-6304.

Becky Baker,

Secretary of the Board.

[FR Doc. 99-24036 Filed 9-10-99; 1:01 pm]

BILLING CODE 7535-01-M

NUCLEAR REGULATORY COMMISSION

[Docket No. 40-7580]

Notice of Consideration of Amendment Request for Construction of a Containment Cell at Fansteel Facility in Muskogee, Oklahoma and Opportunity for Hearing

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of consideration of amendment request for construction of a containment cell at Fansteel Facility in Muskogee, Oklahoma and opportunity for hearing.

The U.S. Nuclear Regulatory Commission (the NRC) is considering an amendment to Source Material License No. SMB-911, issued to Fansteel, Inc. (the licensee), for construction of a low-level, radioactive waste (LLW) disposal cell (containment cell) onsite at Fansteel's facility in Muskogee, Oklahoma. The containment cell would be used for permanent disposal of Fansteel's own LLW, i.e., contaminated soil and soil-like materials, generated from past and current metal recovery operations at the Muskogee, Oklahoma facility. The licensee requested the amendment in a letter dated August 13, 1999.

The Fansteel site is in active operation for the recovery of tantalum, niobium, scandium, uranium, thorium, and other metals of commercial value from process waste residues. Process waste 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. The licensee is not scheduled to terminate License SMB-911 until after 10 to 12 years of additional waste residue reprocessing.

The contaminated soil onsite consists of over 0.68 million cubic feet of soil and soil-like material, e.g., building rubble, that are contaminated with natural uranium and thorium. Metal recovery operations are not feasible on this large volume of dilute, contaminated soil; therefore, these materials require disposal at an appropriate LLW disposal facility. The licensee has proposed to construct a containment cell, located at the southwest of the Fansteel property for disposal of its LLW. In accordance with the NRC's criteria for license termination (10 CFR 20.1403), the containment cell area would, after completion of disposal, be released for restricted use and be subject to long-

term monitoring, maintenance, and surveillance.

The proposed containment cell is to be buried beneath the surface and is comprised of a monolith and an engineered cover. The monolith consists of solidified, contaminated soil and rubble. The solidification process involves mixing the contaminated materials with cement and hydrated calcium chloride, forming a solid, concrete-like monolith. The monolith is to be protected from the surface environment by means of an engineered cover, comprising layers of sand, gravel, riprap (crushed stone), and soil.

Approval of the proposed action would permit Fansteel to excavate the cell area, create the waste monolith, cover the monolith, and release the site area for restricted use under 10 CFR 20.1403.

Prior to the issuance of the proposed action, the NRC will have made findings required by the Atomic Energy Act of 1954, as amended, and the NRC's regulations. These findings will be documented in a Safety Evaluation Report and an Environmental Assessment or Environmental Impact Statement (if necesssary). If the proposed action is approved, it will be documented in an amendment to SMB-911.

The NRC hereby provides that this is a proceeding on an application for amendment of a license falling within the scope of Subpart L, "Informal Hearing Procedures for Adjudication in Materials Licensing Proceedings," of NRC's rules and practice for domestic licensing proceedings in 10 CFR part 2. Pursuant to § 2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing in accordance with § 2.1205(d). A request for a hearing must be filed within thirty (30) days of the date of publication of the **Federal Register** notice.

The request for a hearing must be filed with the Office of Secretary either:

1. By delivery to the Docketing and Service Branch of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, between 7:45am and 4:15pm, federal workdays; or

2. By mail or telegram addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Attention: Rulemaking and Adjudication Staff.

In addition to meeting other applicable requirements of 10 CFR part 2 of the NRC's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

1. The interest of the requester in the proceeding;

2. How the 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 requester'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).

In accordance with 10 CFR 2.1205(f), each request for a hearing must also be served, by delivering it personally or by mail to:

1. The applicant, Fansteel, Inc., Number Ten Tantalum Place, Muskogee, OK, 74403-9296; Attention: Mr. John J. Hunter; and

2. The NRC staff, by delivering to the Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, or by mail, addressed to the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

Questions with respect to this action should be referred to NRC's project manager for Fansteel, Inc., Michael Adjodha, at (301) 415-8147 or by electronic mail at mea1@nrc.gov.

For further details with respect to this action, the application for amendment request is available for inspection at the Commission's Public Document Room, 2120 L Street NW., Washington, DC 20555.

For the Nuclear Regulatory Commission.

Dated at Rockville, Maryland, this 8th day of September, 1999.

Theodore S. Sherr,

Chief, Licensing and International Safeguards Branch, Division of Fuel Cycle Safety and Safeguards, NMSS.

[FR Doc. 99-23905 Filed 9-13-99; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Applications for Licenses To Export Nuclear Material

Pursuant to 10 CFR 110.70 (b) "Public notice of receipt of an application", please take notice that the Nuclear Regulatory Commission has received the following application for an export license. Copies of the application are on file in the Nuclear Regulatory Commission's Public Document Room located at 2120 L Street, NW, Washington, DC.

A request for a hearing or petition for leave to intervene may be filed within 30 days after publication of this notice in the **Federal Register**. Any request for hearing or petition for leave to intervene shall be served by the requestor or petitioner upon the applicant, the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington DC 20555; the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555; and the Executive Secretary, U.S. Department of State, Washington, DC 20520.

In its review of the applications for licenses to export nuclear grade graphite and heavy water as defined in 10 CFR part 110 and noticed herein, the Commission does not evaluate the health, safety or environmental effects in the recipient nation of the material to be exported. The information concerning the application follows.

NRC EXPORT LICENSE APPLICATION

Name of Applicant, date of application, date received, application no.	Description of items to be exported	Country of destination
Cambridge Isotope Laboratories, Inc., 08/30/99, 08/31/99, XMAT0398.	Heavy Water to Canada for upgrading.	Canada.

Dated this 8th day of September 1999, at Rockville, Maryland.

For the Nuclear Regulatory Commission.

Janice Dunn Lee,

Director, Office of International Programs.

[FR Doc. 99-23904 Filed 9-13-99; 8:45 am]

BILLING CODE 7590-01-P

POSTAL RATE COMMISSION

[Docket No. C99-4; Order No. 1260]

Complaint Concerning Bulk Parcel Return Service Fee

AGENCY: Postal Rate Commission.

ACTION: Notice of a new complaint docket.

SUMMARY: The Commission is instituting a docket to consider a complaint regarding the consistency of the $1.75 fee for Bulk Parcel Return Service (BPRS) fee with postal law and policies. It is also authorizing settlement discussions and discovery. These steps will foster expeditious consideration of issues raised in the complaint.

DATES: Participants may explore the potential for settlement until September

MAPS SHOWING PRINCIPAL GROUND-WATER RESOURCES AND RECHARGE AREAS IN OKLAHOMA:

SHEET 1— UNCONSOLIDATED ALLUVIUM AND TERRACE DEPOSITS

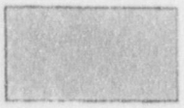
Compiled by

Kenneth S. Johnson
Oklahoma Geological Survey

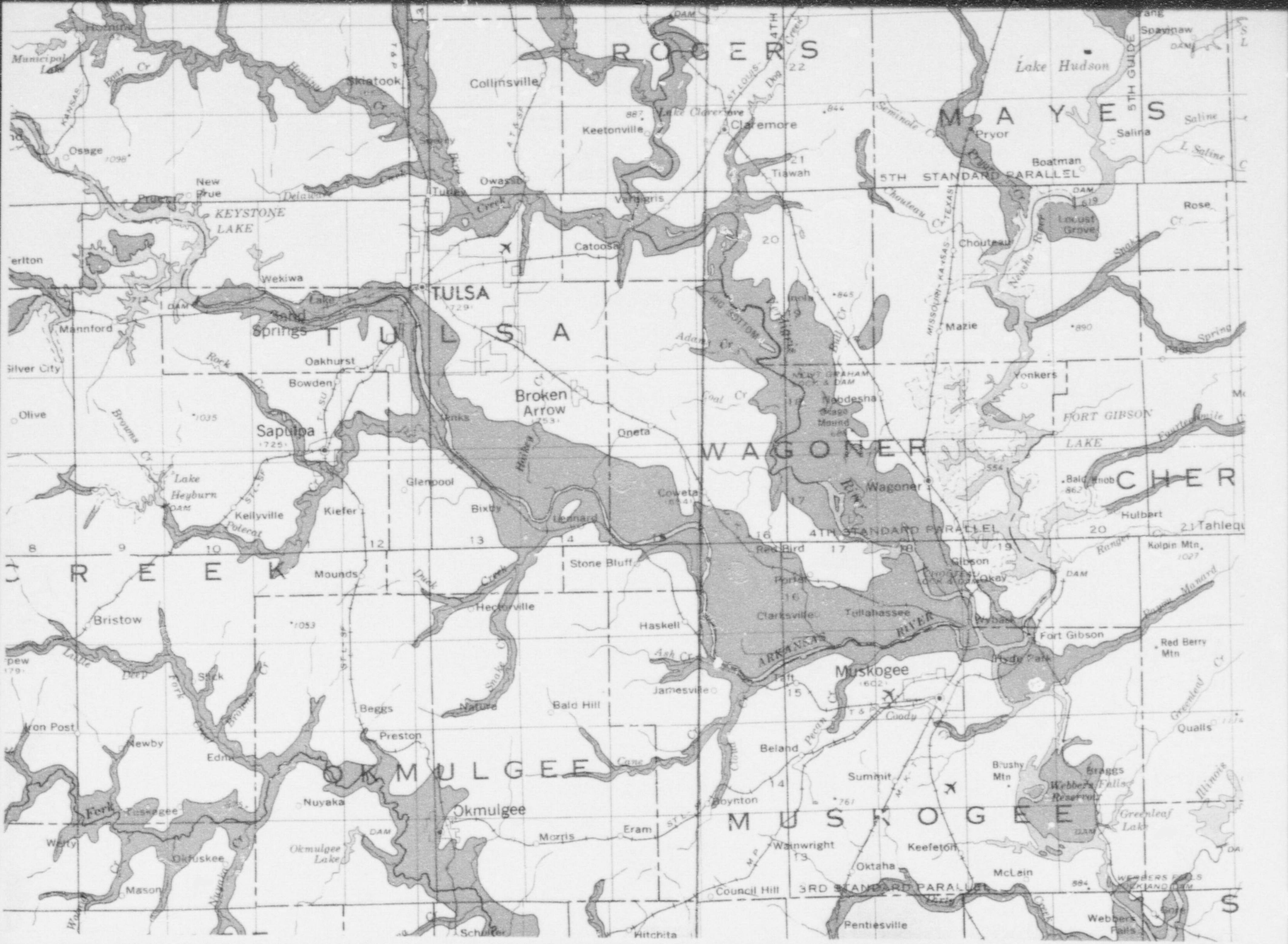
1983

SECOND PRINTING, 1993

EXPLANATION



Alluvium and Terrace Deposits (Quaternary in age). Unconsolidated deposits of sand, silt, clay, and gravel that occur along or adjacent to modern and ancient rivers and streams. Thickness generally ranges from 10 to 50 ft. (locally as much as 100 ft.). Wells generally yield 10 to 500 gpm of water (locally several thousand gpm), and most water is of good quality (less than 1,000 mg/L). Recharge areas are essentially the same as distribution of the alluvium and terrace deposits.



ROGERS
MAYES
TULSA
WAGONER
CHER
CREEK
OKMULGEE
MUSKOGEE
Lake Hudson
KEYSTONE LAKE
FORT GIBSON LAKE
5TH STANDARD PARALLEL
4TH STANDARD PARALLEL
3RD STANDARD PARALLEL
5TH GUIDE
ARKANSAS RIVER
MISSOURI-KANSAS-TEXAS
TULSA
Collinsville
Skiatook
Claremore
Keetonville
Pryor
Salina
Boatman
Spavinaw
Locust Grove
Rose
Chouteau
Mazie
Tiawah
Owasso
Verdigris
Catoosa
Osage
New Prue
Wekiwa
Mannford
Sand Springs
Silver City
Olive
Oakhurst
Bowden
Sapulpa
Broken Arrow
Jenks
Glenpool
Bixby
Leonard
Coweta
Oneta
Nabdesha
Yonkers
Wagoner
Kellyville
Kiefer
Mounds
Stone Bluff
Hectorville
Haskell
Bristow
Red Bird
Porter
Clarksville
Tullahassee
Okay
Gibson
Wybark
Fort Gibson
Hulbert
Tahlequ
Kolpin Mtn.
Red Berry Mtn
Qualls
Muskogee
Jamesville
Taft
Beggs
Preston
Bald Hill
Beland
Summit
Boynton
Brushy Mtn
Braggs
Nuyaka
Okmulgee
Morris
Eram
Wainwright
Keefeton
Oktaha
McLain
Council Hill
Pentiesville
Hitchita
Schulter
Okfuskee
Mason
Weleetka
Newby
Edna
Slick
Iron Post
Lake Heyburn
Okmulgee Lake
Greenleaf Lake
Webbers Falls Reservoir
Webbers Falls

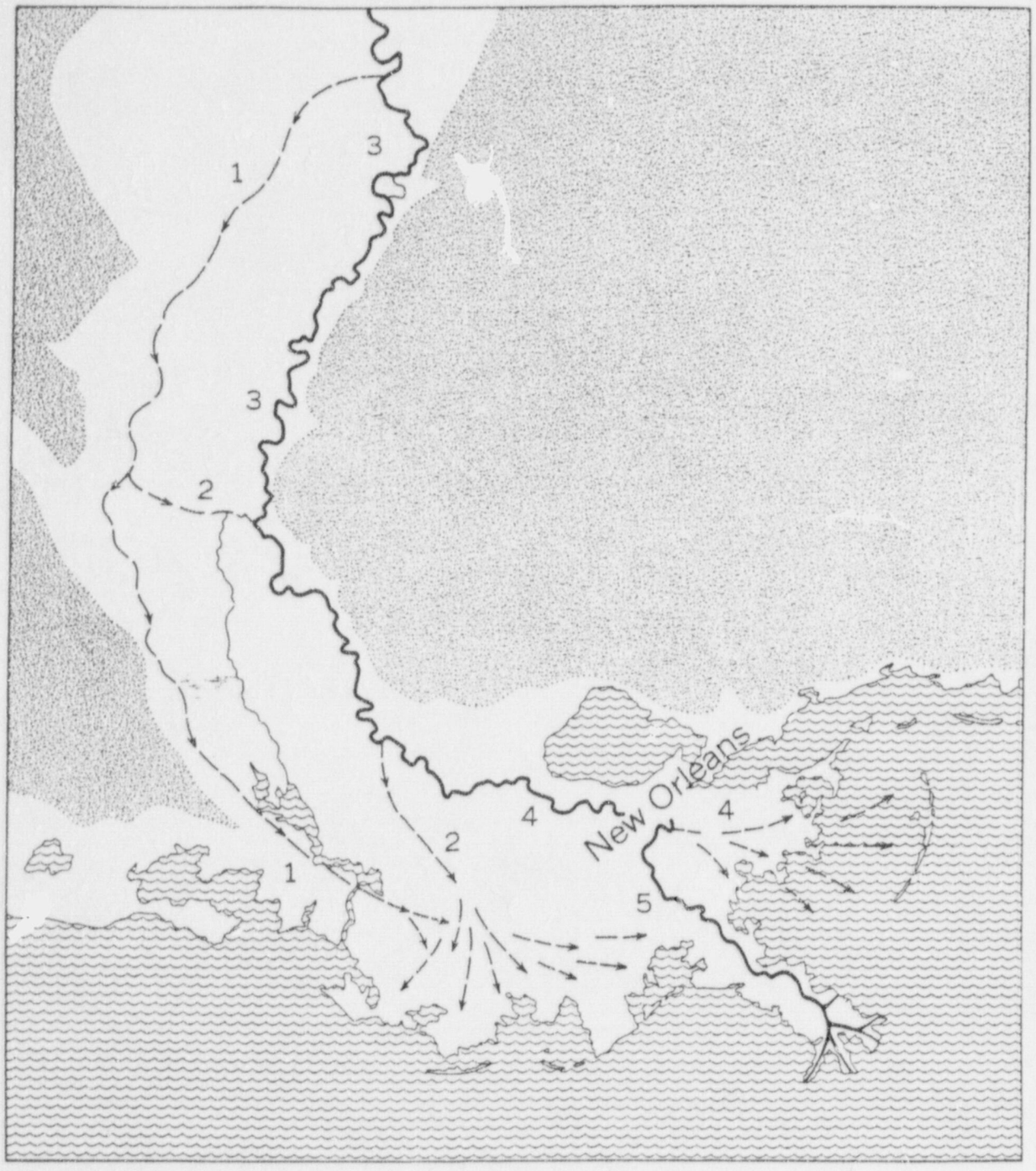
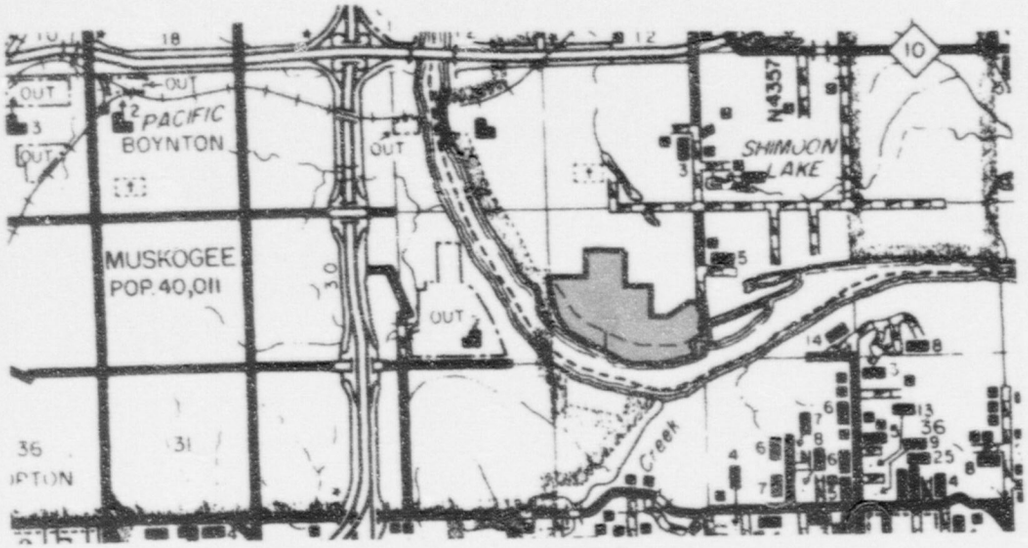


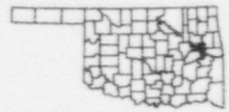
FIG. 11-17 *Various courses of the Mississippi River.*

COURSE	WHEN ESTABLISHED
1	100 A.D.
2	300–400 A.D.
3	1000–1100 A.D.
4	1100–1200 A.D.
5	1500–1600 A.D.

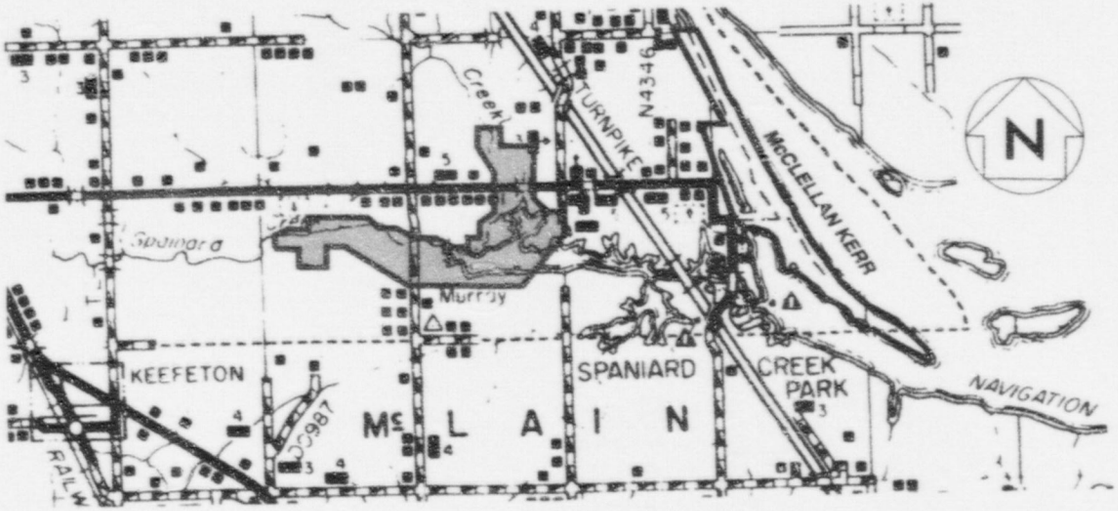
From J. H. Zumberge (after H. N. Fisk, "Geological Investigations of the Atchafalaya Basin and the Problem of Mississippi River Diversion," 1952) *Elements of Geology*, 1958. By permission of John Wiley & Sons, Inc. and U.S. Army Corps of Engineers.



VICINITY MAP



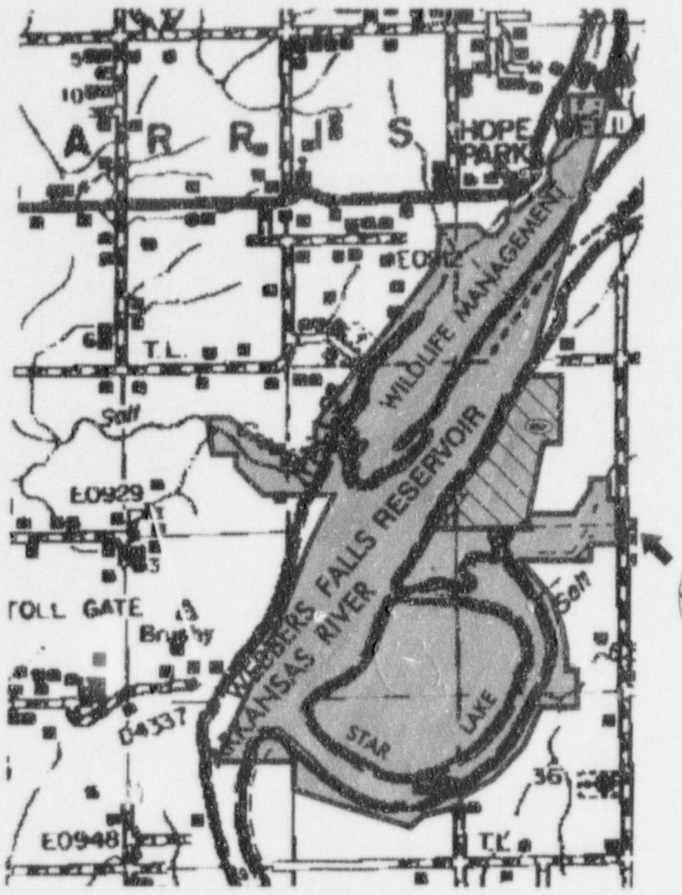
LOCATION: MUSKOGEE COUNTY

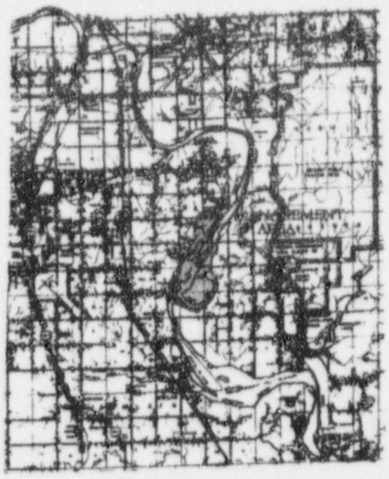


McCLELLAN–KERR
WEBBERS FALLS UNIT
(SHEET 1 OF 3)

0 0.5 1 Mi

SCALE





VICINITY MAP

LOCATION: MUSKOGEE COUNTY

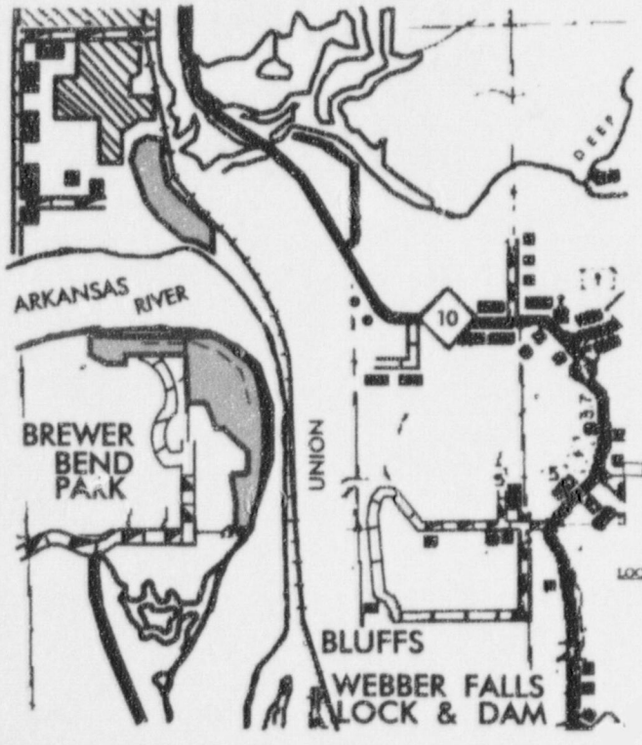
0 0.5 1 Mi

SCALE

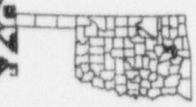
McCLELLAN–KERR

WEBBERS FALLS UNIT

(SHEET 2 OF 3)



VICINITY MAP



LOCATION: MUSKOGEE COUNTY

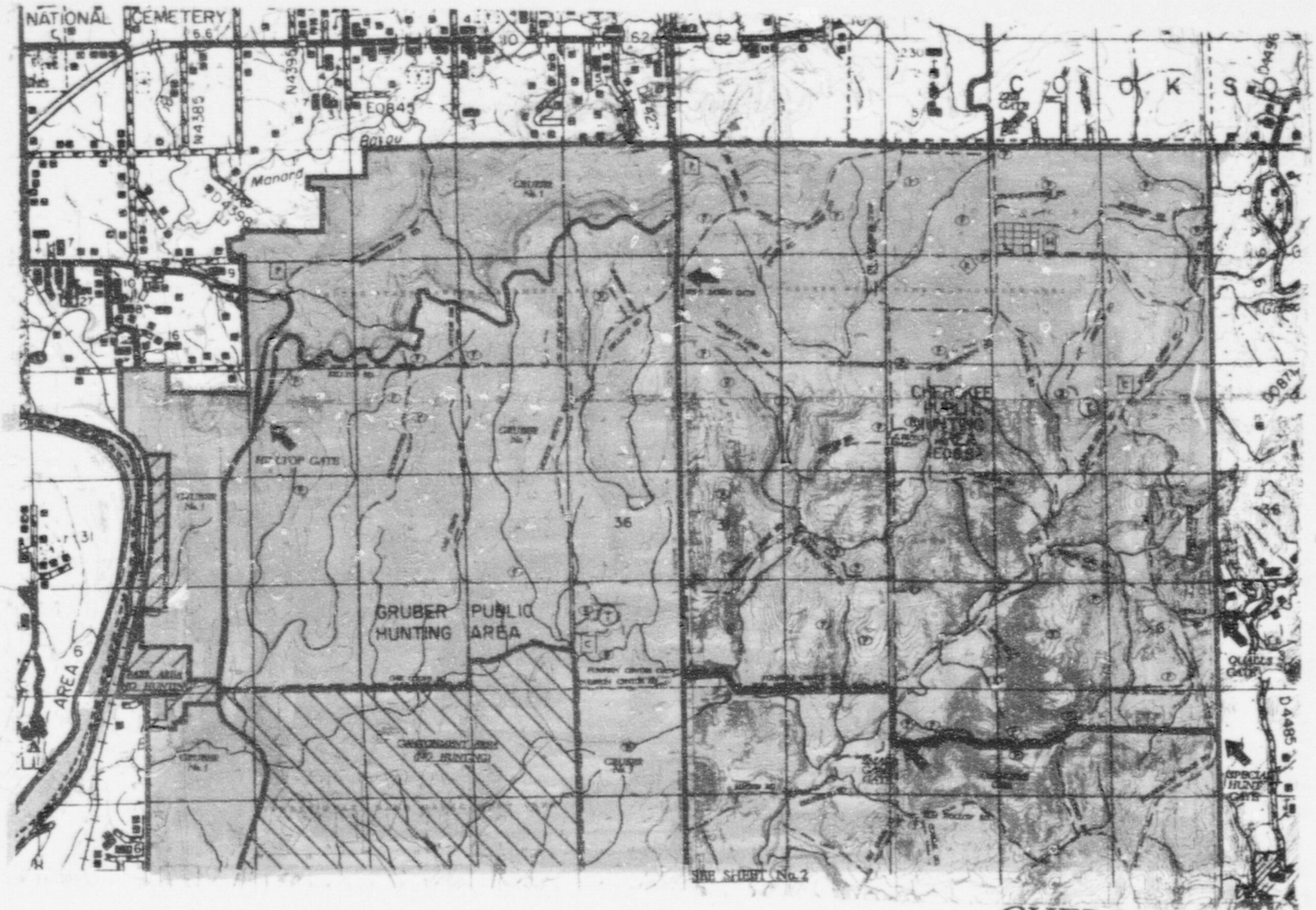
0 0.5 1 Mi

SCALE

McCLELLAN–KERR

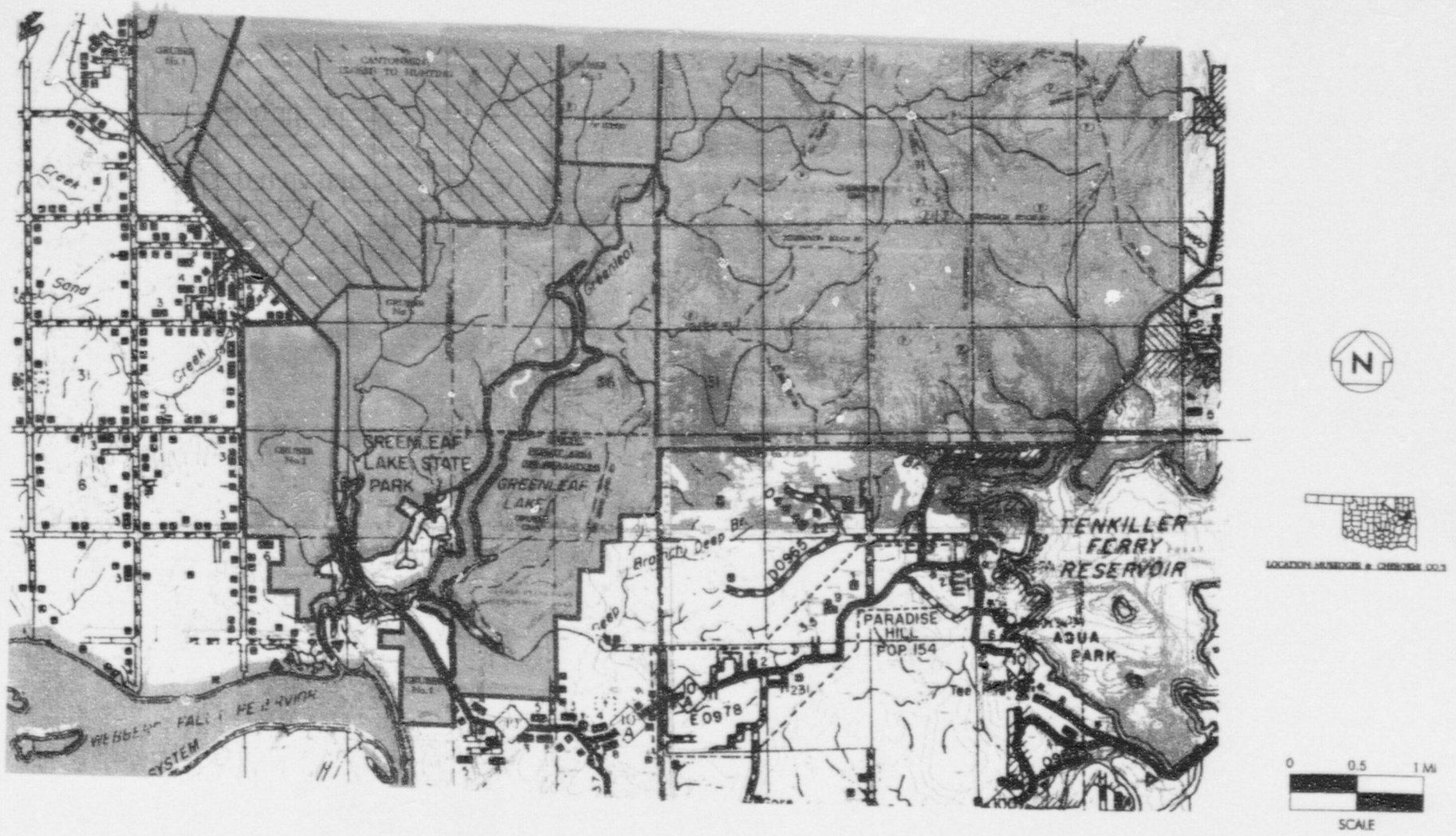
WEBBERS FALLS UNIT

(SHEET 3 OF 3)



CHEROKEE GRUBER

(SHEET 1 OF 2)



CHEROKEE GRUBER

(SHEET 2 OF 2)

JURISIDICTION
MUSKOGEE COUNTY 1994

DISTRICT
20B

LEGAL DESCRIPTION
16-15N-19E
T15N R19E S16
S2 LT 3 & LTS 6&7 LS 7.87 TO
CO & HWY & LS 3.575 TO USA
OWNER: FANSTEEL METALLURGICAL CORP

CONTROL ACCOUNT NUMBER
0000-16-15N-19E-1-019-22
0012 0019 22

CARD 1 OF 6 32239

HMST: NONE
XMPT: NONE

PROPERTY LOCATION
000000

MAP NUMBER

IMPROVEMENT VALUATION

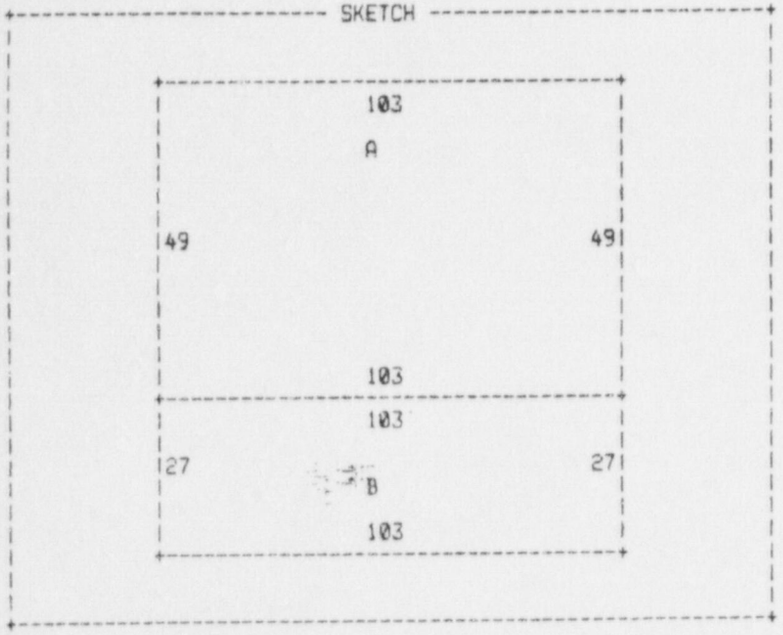
TYPE	DESIGN	OCCUPANCY	CONDITION
RURAL COM	CONVENTL	WAREHSE	

FOUNDATION	EXTERIOR	ROOF TYPE	ROOF MATL
	METAL		METAL

HEAT/COOL	PLUMBING	GARAGE	BASEMENT
SUSPEND	0.00 BH		
SPRNKLER			

#	ADJUST SF	CLASS	%	RATE	VALUE
A	5047	WAREHSE	90	18.68	84850
B	4867	OFFICE	90	31.05	136008

SKETCH



OVERALL PCT. GOOD @ 100%		0
ECON/FUNC. DEPR. @ 100%		0
IMPROVEMENT VALUE	(THIS CARD)	220858
CLASS 100+	(ALL CARDS)	879303

FANSTEEL METALUR-
20B&C-GIGAL CORP
(A)GU49R103D49L103S
(B)GD27R103U27L103S

ITEM DESC	AREA CONVERSION ACTUAL	GROUND	%	ADJAREA
A WAREHSE	5047	5047	100	5047
B OFFICE	2781	2781	175	4867

LAND VALUATION

TOPO	UTIL	FRONT	ZONING

LAND CALCULATIONS		VALUE
52.450 ACRES (AP,EV)		
52.4500 X 100% @	0.00	254750

PROCESSED: 10/06/1999 10:53:57

SALES HISTORY

SALES TYPE	V/C	SOURCE	AMOUNT
01/01/00	0		0

LAND VALUE	(THIS CARD)	254750
	(ALL CARDS)	254750
		TOTAL

FANSTEEL METALLURGICAL CORP
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000 475608
ALL CARDS 1134053

BUILT	APPR	DATE
0	14	07/28/97

PERMIT	TYPE	DATE	AMOUNT

JURISIDICTION
MUSKOGEE COUNTY 1994

DISTRICT
20B

LEGAL DESCRIPTION
16-15N-19E
T15N R19E S16
S2 L1 3 & LTS 6&7 LS 7.87 TO
CO & HWY & LS 3.575 TO USA
OWNER: FANSTEEL METALLURGICAL CORP

CONTROL ACCOUNT NUMBER
0000-16-15N-19E-1-019-22
0001-0019 22

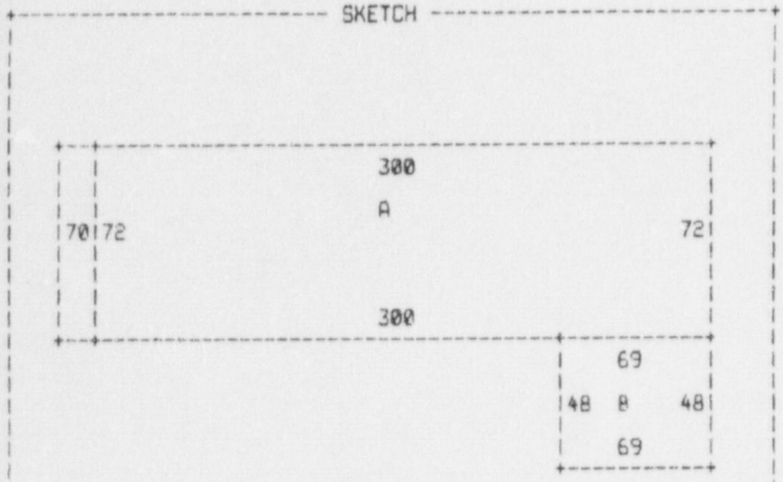
CARD 2 OF 6 32239

HMST: NONE
XMPT: NONE

PROPERTY LOCATION
000000

MAP NUMBER

SKETCH



IMPROVEMENT VALUATION

TYPE	DESIGN	OCCUPANCY	CONDITION
RURAL COM	WAREHOUS	WAREHSE	

FOUNDATION	EXTERIOR	ROOF TYPE	ROOF MATL
SLAB	BRICK		BU/T&G

HEAT/COOL	PLUMBING	GARAGE	BASEMENT
SUSPEND	0.00 BH		
SPRNKLER			

#	ADJUST SF	CLASS	%	RATE	VALUE
A	21600	WAREHSE	75	24.77	401274
B	3312	WAREHSE	75	20.75	51543
C	1400	STG/UTIL	75	12.00	12600

OVERALL PCT. GOOD	@ 100%	0
ECON/FUNC. DEPR.	@ 100%	0
IMPROVEMENT VALUE	(THIS CARD)	465417
CLASS 103+	(ALL CARDS)	879303

LAND VALUATION

TOPO	UTIL	FRONT	ZONING

LAND CALCULATIONS VALUE

AREA CONVERSION

	ITEM	DESC	ACTUAL	GROUND	%	ADJAREA
(A)GU72R300D72L300S	A	WAREHSE	21600	21600	100	21600
(B)R231GD48R69U48L69S	B	WAREHSE	3312	3312	100	3312
(C)GL20U70R20D70S	C	STG/UTIL	1400	1400	100	1400

PROCESSED: 10/06/1999 10:53:57

SALES HISTORY

SALES TYPE	V/C	SOURCE	AMOUNT
01/01/00	0		0

BUILT	APPR	DATE	PERMIT	TYPE	DATE	AMOUNT
1957	14	07/28/97				

LAND VALUE	(THIS CARD)	0
	(ALL CARDS)	254750
		TOTAL

FANSTEEL METALLURGICAL CORP
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000

	465417
ALL CARDS	1134053

JURISIDICTION
MUSKOGEE COUNTY 1994

DISTRICT
208

LEGAL DESCRIPTION
16-15N-19E
T15N R19E S16
S2 LT 3 & LTS 6&7 LS 7.87 TO
CO & HWY & LS 3.575 TO USA
OWNER: FANSTEEL METALLURGICAL CORP

CONTROL ACCOUNT NUMBER
0000-16-15N-19E-1-019-22
0012 0019 22

CARD 6 OF 6 32239

HMST: NONE
XMPT: NONE

PROPERTY LOCATION
000000

MAP NUMBER

IMPROVEMENT VALUATION

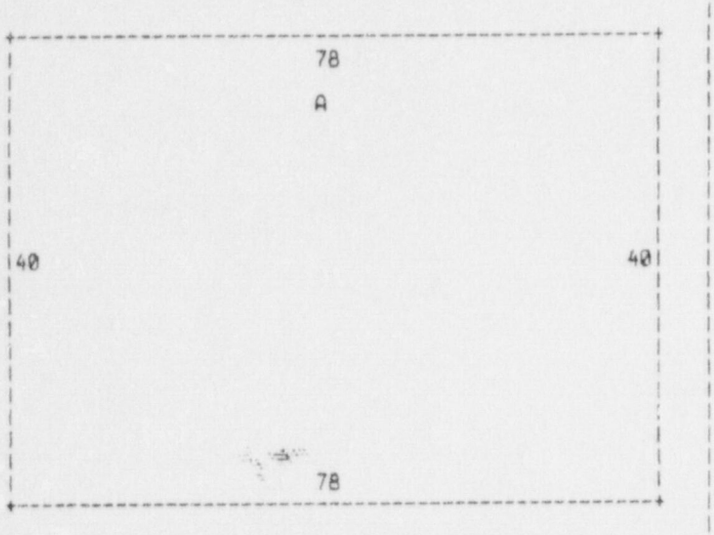
TYPE	DESIGN	OCCUPANCY	CONDITION
RURAL COM	WAREHOUS	WAREHSE	

FOUNDATION	EXTERIOR	ROOF TYPE	ROOF MATL
SLAB	METAL		METAL

HEAT/COOL	PLUMBING	GARAGE	BASEMENT
SUSPEND	0.00 BH		
SPRNKLER			

#	ADJUST	SF	CLASS	%	RATE	VALUE
A		3120	WAREHSE	75	14.90	34866
		1	BARN	100	0.00	500
		1	BARN	100	0.00	500

SKETCH



OVERALL PCT. GOOD	@ 100%	0
ECON/FUNC. DEPR.	@ 100%	0
IMPROVEMENT VALUE	(THIS CARD)	35866
CLASS 100+	(ALL CARDS)	879303

LAND VALUATION

TOPO	UTIL	FRONT	ZONING

20B&C

(A)GU40R78D40L78S

AREA CONVERSION

ITEM DESC	ACTUAL	GROUND	% ADJ	AREA
A WAREHSE	3120	3120	100	3120
BARN	1	1	100	1
BARN	1	1	100	1

LAND CALCULATIONS VALUE

PROCESSED: 10/06/1999 10:53:57

SALES HISTORY

SALES TYPE	V/C	SOURCE	AMOUNT
01/01/00	0		0

LAND VALUE	(THIS CARD)	0
	(ALL CARDS)	254750
		TOTAL

FANSTEEL METALLURGICAL CORP
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000

35866
ALL CARDS 1134053

BUILT	APPR	DATE
0	14	07/28/97

PERMIT	TYPE	DATE	AMOUNT

MUSKOGEE COUNTY
10/06/99 10:55:06

AA SUMMARY

**** PARCEL IDENTIFICATION ****

REC: 32239 PIDN: 0000-16-15N-19E-1-019-22 OPID: 0012 0019 22
SD : 20B LOCA: 0 , RUR
HS : NONE XMPT: NONE

**** LEGAL DESCRIPTION ****

T15N R19E S16
S2 LT 3 & LTS 6&7 LS 7.87 TO CO & HWY & LS 3.575 TO USA
16-15-19

**** OWNER INFORMATION ****

FANSTEEL METALLURGICAL CORP 100.00%
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000

**** TAXPAYER INFORMATION ****

FANSTEEL METALLURGICAL CORP 100.00%
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000

**** VALUE HISTORY ****

Year	Appraised Land	Appraised Impr	Appraised Total	Ratio	Assessed Land	Assessed Impr	Assessed Total
2000	254750	879303	1134053	11.00	28025	96725	124750
1999	254750	879303	1134053	11.00	28025	96725	124750
1998	254750	879303	1134053	11.00	28025	96725	124750
1997	254750	879303	1134053	11.00	28025	96725	124750
1996	254750	879303	1134053	11.00	28025	96725	124750
1995	254750	879303	1134053	11.00	28025	96725	124750
1994	254750	879303	1134053	11.00	28025	96725	124750
1993	254750	879303	1134053	11.00	28025	96725	124750

**** TRANSFER HISTORY ****

Previous Owner	Book	Page	Type	Inst. Dt	Percnt	Stamps	Est Price
UNKNOWN	1104	19		01/01/00	100.00	0.00	0

JURISIDICTION
MUSKOGEE COUNTY 1994

DISTRICT
20B

LEGAL DESCRIPTION
17-15N-19E
T15N R19E S17
SE SE NE & E½ SE LESS 33.21
ACRES TURNPIKE
OWNER: FANSTEEL METALLURGICAL CORP

CONTROL ACCOUNT NUMBER
0000-17-15N-19E-1-020-43
0012 0020 43

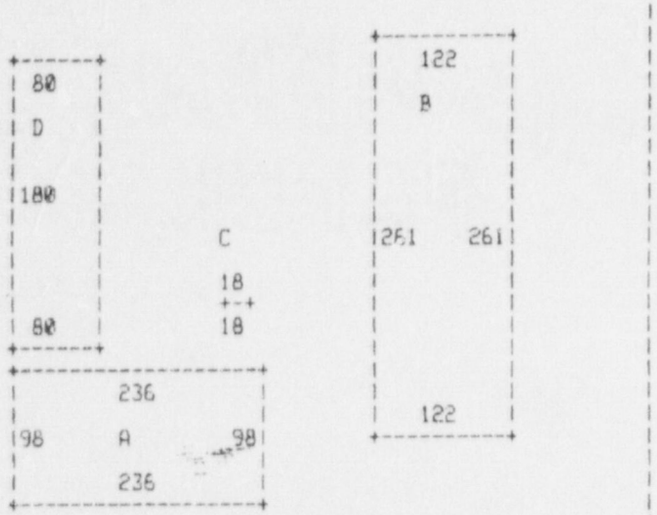
CARD 1 OF 1 32240

HMST: NONE
XMPT: NONE

PROPERTY LOCATION
000000

MAP NUMBER

SKETCH



IMPROVEMENT VALUATION

TYPE	DESIGN	OCCUPANCY	CONDITION
RURAL COM	WAREHOUS	WAREHSE	GOOD

FOUNDATION	EXTERIOR	ROOF TYPE	ROOF MATL
SLAB	BRICK	FLAT	BU/T&G

HEAT/COOL	PLUMBING	GARAGE	BASEMENT
STEAM	4.00 BH	NONE	NONE
SPRNKLER			

#	ADJUST SF	CLASS	%	RATE	VALUE
A	23128	WAREHSE	80	25.53	472366
B	31842	WAREHSE	80	24.06	612895
C	216	REMARK	80	15.00	2592
D	14400	WAREHSE	95	16.46	225173
	2260	REMARK	60	5.30	7187
	24025	ASPHALT	90	0.85	18379

OVERALL PCT. GOOD	@ 100%	0
ECON/FUNC. DEPR.	@ 100%	0
IMPROVEMENT VALUE	(THIS CARD)	1338592
CLASS 103+	(ALL CARDS)	1338592

GUARD HOUSE/FENCE
20B&C,FANSTEEL METAL
(A)GU98R236D98L236S
(B)R336U50GU261R122D2
61L122S(C)U128R200GU1
2R18D12L18S(D)U108GU1
80R80D180L80S

AREA CONVERSION

ITEM	DESC	ACTUAL	GROUND	%	ADJAREA
A	WAREHSE	23128	23128	100	23128
B	WAREHSE	31842	31842	100	31842
C	REMARK	216	216	100	216
D	WAREHSE	14400	14400	100	14400
	REMARK	2260	2260	100	2260
	ASPHALT	24025	24025	100	24025

LAND VALUATION

TOPO	UTIL	FRONT	ZONING
ROLLING	ALL	PAVED	

LAND CALCULATIONS		VALUE
56.790 ACRES (AP,EV)		
56.7900 X 100% @	0.00	250500

PROCESSED: 10/06/1999 10:54:58

SALES HISTORY

SALES TYPE	V/C	SOURCE	AMOUNT
01/01/00	0		0

LAND VALUE	(THIS CARD)	250500
	(ALL CARDS)	250500
		TOTAL

FANSTEEL METALLURGICAL CORP
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000

		1589092
	ALL CARDS	1589092

BUILT	APPR	DATE
1960	14	07/28/97

PERMIT	TYPE	DATE	AMOUNT

MUSKOGEE COUNTY
10/06/99 10:55:03

****
** AA SUMMARY **
****

**** PARCEL IDENTIFICATION ****

REC: 32240 PIDN: 0000-17-15N-19E-1-0[illegible]-43 OPID: 0012 0020 43
SD : 208 LOCA: 0 , RUR
HS : NONE XMPT: NONE

**** LEGAL DESCRIPTION ****

T15N R19E S17
SE SE NE & E½ SE LESS 33.21 ACRES TURNPIKE

**** OWNER INFORMATION ****

FANSTEEL METALLURGICAL CORP 100.00%
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000

**** TAXPAYER INFORMATION ****

FANSTEEL METALLURGICAL CORP 100.00%
ATTN: M. MOCNIAK
ONE TANTALUM PLACE
NORTH CHICAGO, IL 60064-0000

**** VALUE HISTORY ****

Year	Appraised Land	Appraised Impr	Appraised Total	Ratio	Assessed Land	Assessed Impr	Assessed Total
2000	279675	1303038	1582713	11.00	30765	143335	174100
1999	250500	1338592	1589092	11.00	27555	147245	174800
1998	250500	1338592	1589092	11.00	27555	147245	174800
1997	250500	1338592	1589092	11.00	27555	147245	174800
1996	250500	1338592	1589092	11.00	27555	147245	174800
1995	250500	1338592	1589092	11.00	27555	147245	174800
1994	250500	1338592	1589092	11.00	27555	147245	174800
1993	250500	1338592	1589092	11.00	27555	147245	174800

**** TRANSFER HISTORY ****

Previous Owner	Book	Page	Type	Inst. Dt	Percnt	Stamps	Est Price
UNKNOWN	1153	520		01/01/00	100.00	0.00	0

Table 3
Decommissioning Funding Plan
Cost Estimating Table for Financial Assurance
Fansteel Inc.
Muskogee, Oklahoma

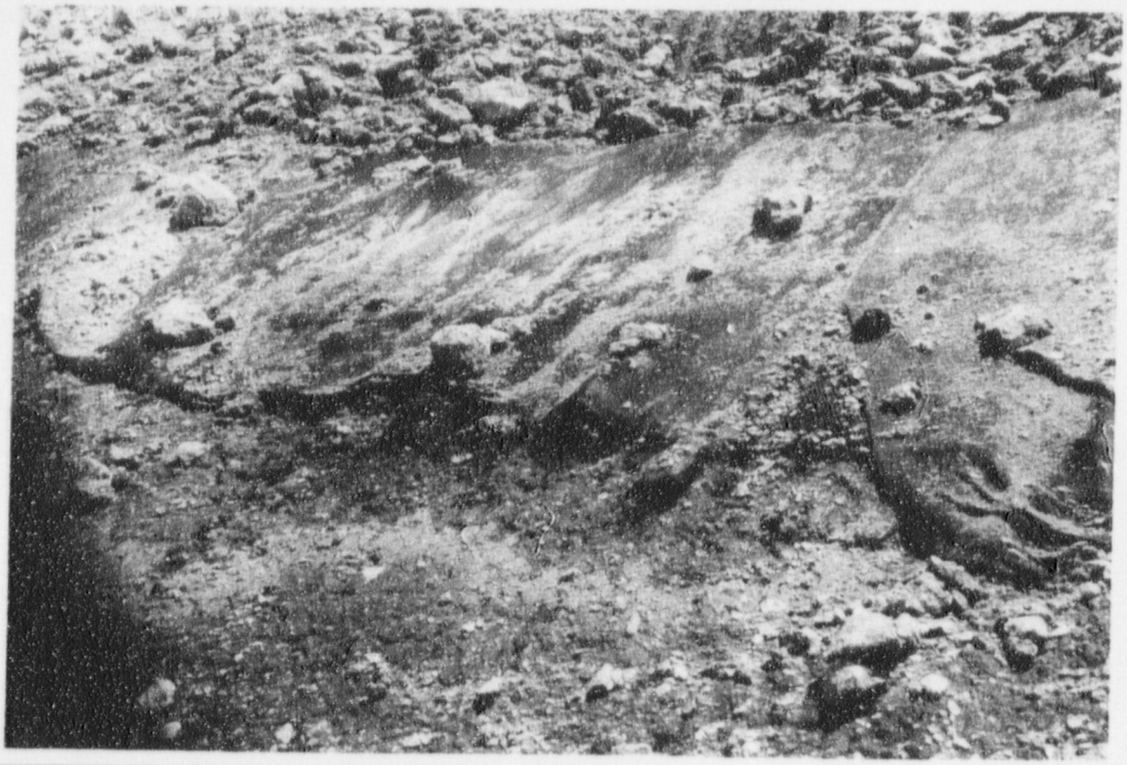
Item	Quantity	Unit	Unit Cost	Total Cost
13a. Diversion Ditch	7000	square yards	$1.28	$8,960
13b. Erosion Control	5000	square yards	$0.72	$3,600
Total Cost				**$3,190,510**
E. Final Radiation Survey				
1. Survey Activities				
1a. Survey Team	3000	man-hours	$25	$75,000
1b. Oversight	500	man-hours	$75	$37,500
2. Laboratory	NA	NA	lump sum	$20,000
Total Cost				**$132,500**
F. Site Stabilization - Long Term Monitoring (4)	1	each	$ 365,000	$365,000
Total Decommissioning Funding Cost				**$4,694,890**

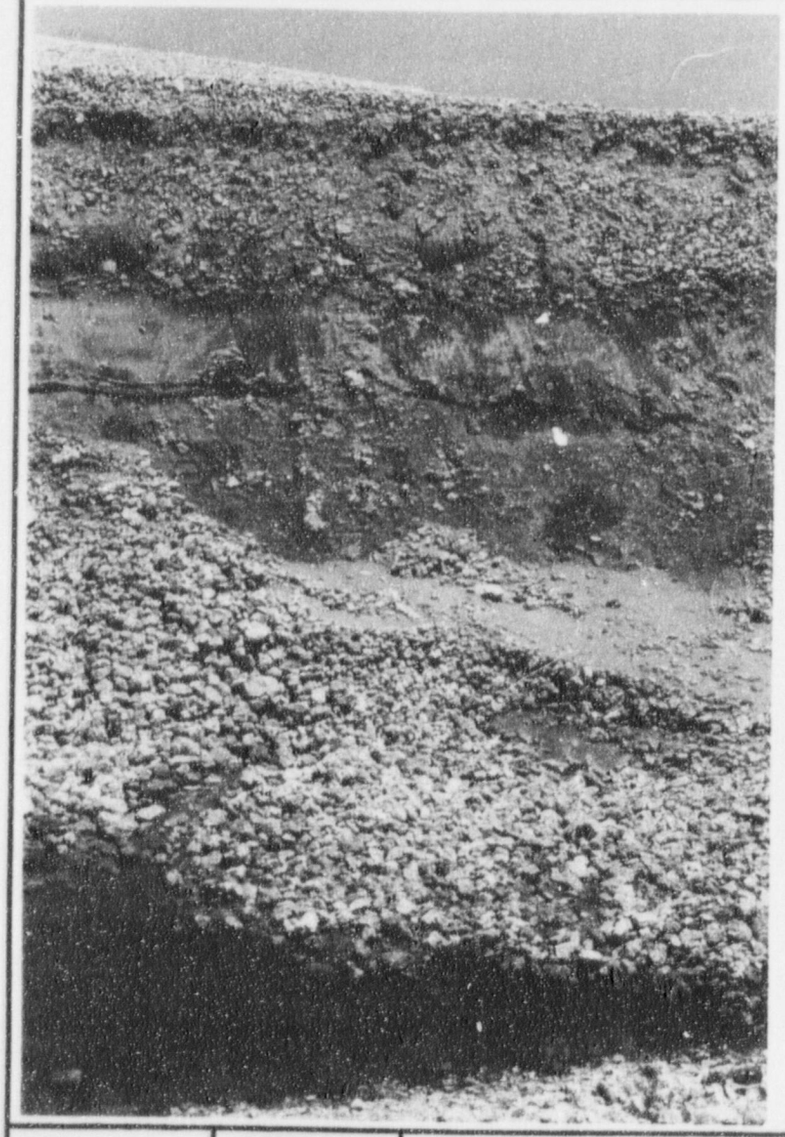
(1) NA = not applicable
(2) Procurement costs for special equipment included in Item A.9 - Administration and Management
(3) Investigation costs include 1000 hours of field technicians @ $25/hr and 1000 hours of specialized technical support @ $50/hr
(4) Costs included in this Item are as follows:
365,000 cash bond discounted at 2% to yield $7300/year to cover the following yearly maintenance expenses:
Groundwater monitoring - 2/year @ $400/occ. = $800/year
Reporting - 2/year @ $400/occ. = $800/year
Grass Mowing - 4 months @ $500/month = $2,000/year
Fencing Repair - $1,200/year
Cell cover repair - $1,000/year
Environmental Consultant - 20hr/yr @ $75/hr = $1,500/yr

W:\3789ze\rpt\table3.xls

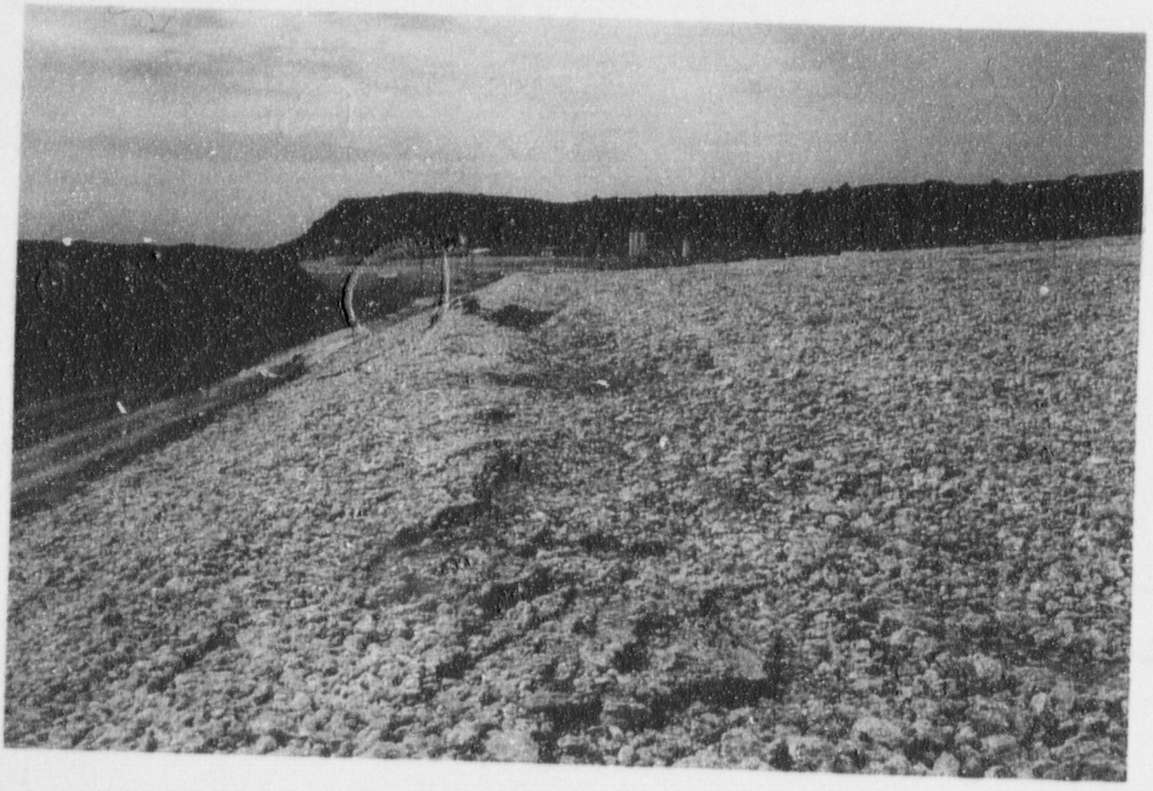
West Slope – Landfill Cell 12
July 15, 1998

983455	AGEC	Site Conditions	Figure 1





983455	AGEC	Exposed Slip Plane	Figure 2

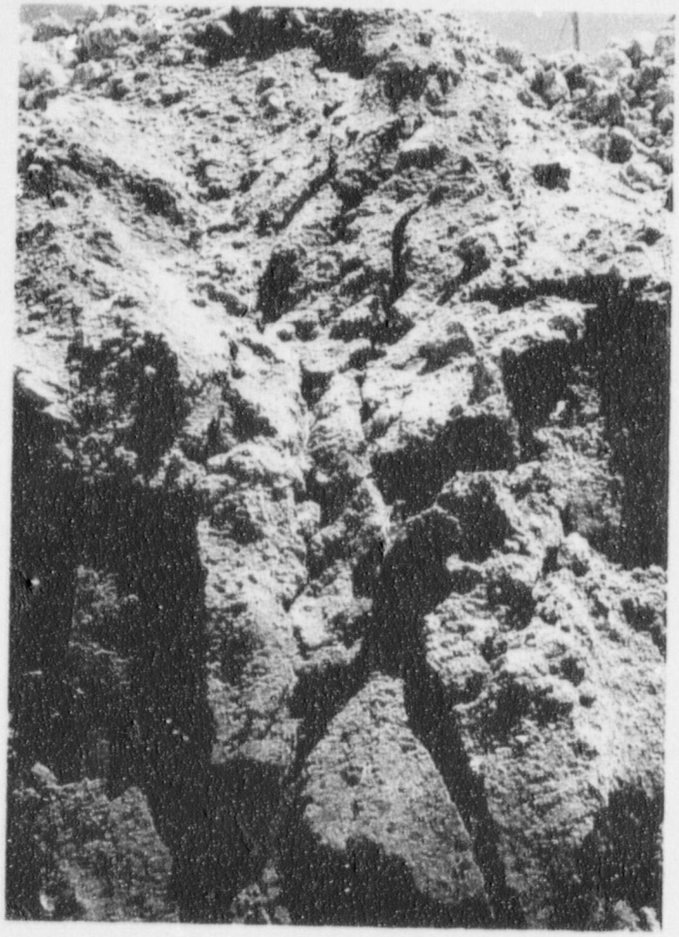


LANDFILL CELL 13 CLOSURE
SLIPPAGE ON EAST SLOPE

FIGURE
1

LANDFILL CELL 13 CLOSURE
OBSERVED SURFACE CRACKING

FIGURE
2

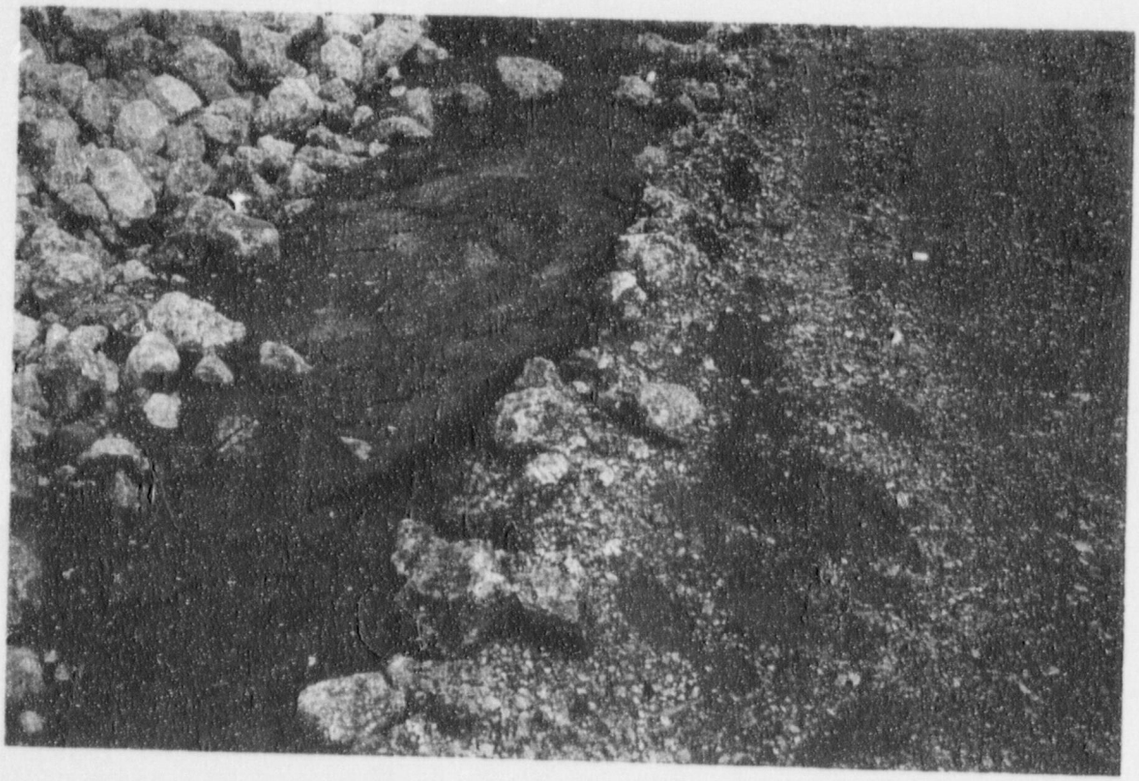


LANDFILL CELL 13 CLOSURE
VERTICAL CRACKING IN
SOIL COVER MATERIAL

FIGURE
3

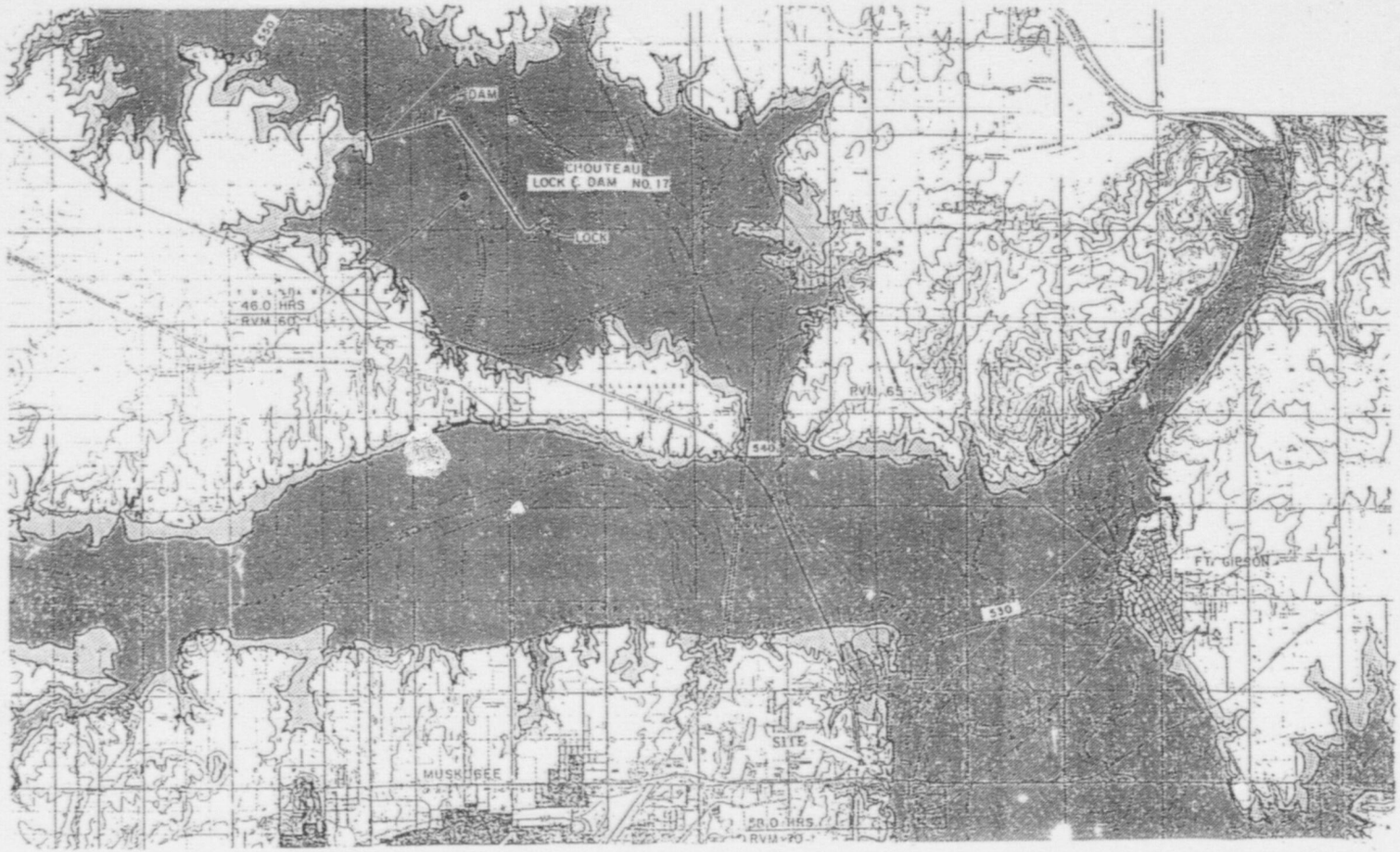
LANDFILL CELL 13 CLOSURE
SOIL ACCUMULATION AROUND
PERIMETER CAP TOE

FIGURE
4



LANDFILL CELL 13 CLOSURE
GEOTEXTILE FABRIC IN SOIL ACCUMULATION
AROUND PERIMETER OF CAP TOE

FIGURE
5



NOTE: FLOODED AREA OUTLINES SHOWN REPRESENT ESTIMATED MAXIMUM AREAS THAT COULD BE FLOODED BY A DAM BREACH OR BY SPILLWAY DISCHARGE WITHOUT A DAM BREACH DURING THE PROBABLE MAXIMUM FLOOD.

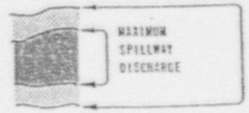
LEGEND

350 — APPROXIMATE MAXIMUM WATER SURFACE ELEV.

7 HRS. ESTIMATED TRAVEL TIME - DAM BREACH (Based on time from initial dam failure to peak flood stage)

RVM 5 RIVER VALLEY MILES

APPROXIMATE FLOOD LIMITS



ARKANSAS RIVER WATERSHED VERDIGRIS RIVER, [illegible]

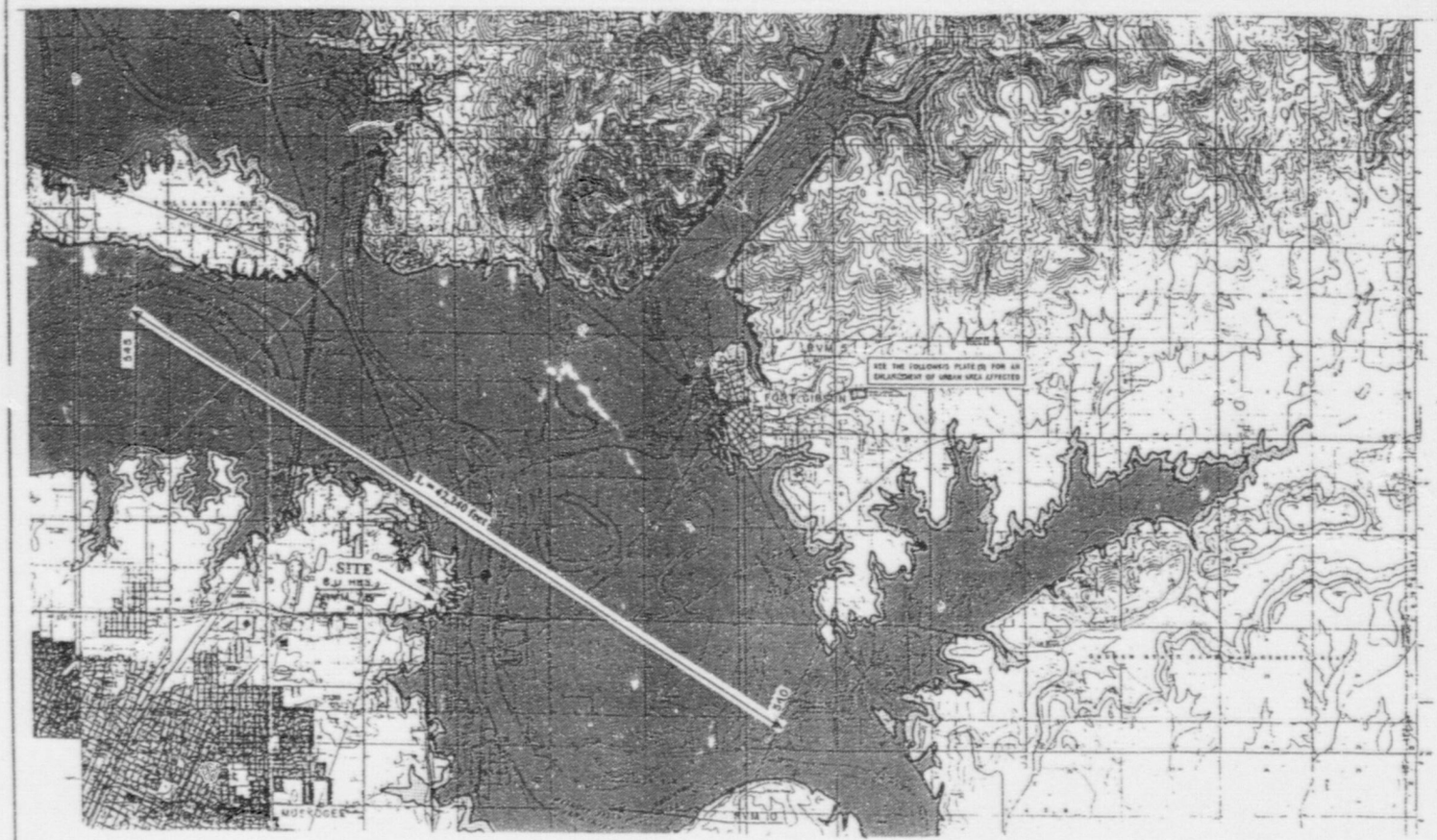
OOLOGAH LAKE

POTENTIAL FLOODED AREA MAPS

SHEET 8 OF 9

DEPT. OF THE ARMY, TULSA DISTRICT, CORPS OF ENGINEERS
DRAWN: RLD
CHECKED: TFH

PLATE NO.



NOTE: FLOODED AREA OUTLINES SHOWN REPRESENT ESTIMATED MAXIMUM AREAS THAT COULD BE FLOODED BY A DAM BREACH OR BY SPILLWAY DISCHARGE WITHOUT A DAM BREACH DURING THE PROBABLE MAXIMUM FLOOD.

LEGEND

350 ——— APPROXIMATE MAXIMUM WATER SURFACE ELEV.

7 HRS. ESTIMATED TRAVEL TIME - DAM BREACH (Based on time from initial dam failure to peak flood stage)

RVM 5 RIVER VALLEY MILES

APPROXIMATE FLOOD LIMITS

MAXIMUM SPILLWAY DISCHARGE

DAM BREACH

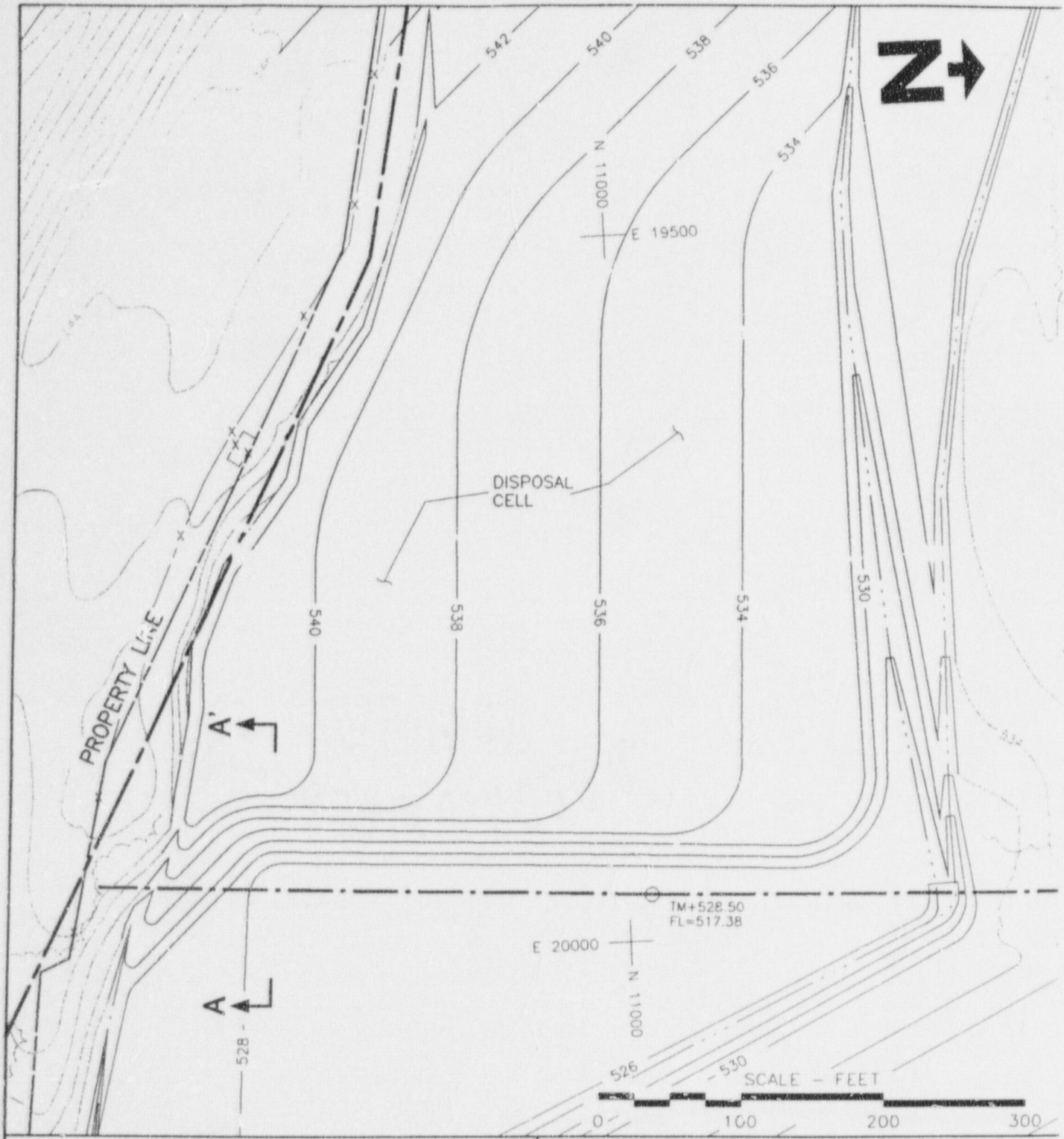
ARKANSAS RIVER WATERSHED MEDSHO RIVER, OKLAHOMA

FORT GIBSON LAKE
POTENTIAL FLOODED AREA MAPS

SHEET 7 OF 8

DEPT. OF THE ARMY, TULSA DISTRICT CORPS OF ENGINEERS
DRAWN: MLR
CHECKED: TEH

PLATE 9



LEGEND

PROPERTY LINE

APPROXIMATE GAS LINE

APPROXIMATE 24" SEWER MAIN

NOTES:

1. SEE DRAWING NO. 3789206 FOR SECTION A–A'.
2. SEE DRAWING NO. 3789306 FOR FINAL COVER AND SURFACE WATER CONTROL PLAN.

REFERENCES

1. SURFACE TOPOGRAPHY WAS DIGITIZED FROM A TOPOGRAPHIC MAP PREPARED BY GENE F. MOODY & ASSOCIATES, INC. TULSA, OKLAHOMA, DATED SEPTEMBER 16, 1987.

REVISION	DATE	DESCRIPTION

FIGURE 1
SLOPE STABILITY ANALYSIS
CROSS SECTION A–A' LOCATION

PREPARED FOR

FANSTEEL, INC.

MUSKOGEE, OKLAHOMA

APPROVED	12/1/98
CHECKED	RMW 10/1/98
DRAWN	BSP 9/29/98
DRAWING NUMBER	3789020

Earth Sciences Consultants, Inc.
An Avalon Holdings Company