



DUKE COGEMA
STONE & WEBSTER

Mr. Eric J. Leeds, Chief
Special Projects Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

30 April 2001
DCS-NRC-000034
Response Requested: Yes
By: 11 May 2001

Attention: Document Control Desk

Subject: Docket Number 070-03098
Duke Cogema Stone & Webster
Mixed Oxide Fuel Fabrication Facility
Early Site Work Activities

Dear Mr. Leeds:

As you are aware, under 10 CFR § 70.23 the U.S. Nuclear Regulatory Commission (NRC) Director of Nuclear Material Safety and Safeguards (NMSS) must authorize construction of the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF) before construction may commence. Duke Cogema Stone & Webster's (DCS') Construction Authorization Request (CAR) was submitted to the NRC on 28 February 2001.

10 CFR § 70.23(a)(7) identifies certain activities that do not constitute "commencement of construction of the plant or facility" and 10 CFR § 51.101(c) authorizes license applicants, after prior notice and consultation with the NRC Staff, to perform "physical work relating to the proposed action if the adverse environmental impact of that work is *de minimis*."

The purpose of this letter is to describe those activities which DCS would like to perform at the proposed MFFF site prior to the NMSS Director's construction authorization, and to seek your confirmation that they are authorized by 10 CFR § 70.23(a)(7) or would have, at most, only *de minimis* environmental impacts and are authorized by Part 70 and section 51.101(c). We are providing this information because the timely execution of these activities is important to the surplus plutonium disposition program.

The activities discussed in the attached summary are based upon current schedule assumptions for the construction authorization. All activities will be conducted within the existing boundaries of the MFFF site. None of the activities involves the construction of "principal structures, systems, or components" within the meaning of section 70.23(b).

A synopsis of the applicable legal standards is also enclosed, along with a general site map showing the MFFF site relative to existing F-Area facilities.

PO Box 31847
Charlotte, NC 28231-1847

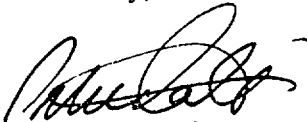
400 South Tryon Street, WC-32G
Charlotte, NC 28202

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If additional site visits will facilitate your concurrence, please feel free to let us know. Your timely review of the near-term activities is appreciated. If you have any questions, please feel free to contact me at (704) 373-7820.

Sincerely,



Peter S. Hastings, P.E.
Licensing Manager

Enclosures:

1. MFFF Early Site Work Activities Summary
2. Synopsis of Legal Standards Governing Early Site Physical Activities at the MFFF
3. Plutonium Disposition Program Overall Preliminary Plot Plan (F Area)

xc (without enclosure):

Charlotte E. Abrams, USNRC/HQ
Edward J. Brabazon, DCS
B. Jennifer Davis, USNRC/HQ
Joseph G. Giitter, USNRC/HQ
John T. Hull, Esq., USNRC/HQ
Robert H. Ihde, DCS
James V. Johnson, USDOE/MD
Timothy C. Johnson, USNRC/HQ
Joseph M. King, DCS
John E. Matheson, DCS
Andrew Persinko, USNRC/HQ
Robert C. Pierson, USNRC/HQ
Donald J. Silverman, Esq., DCS
Jon H. Thompson, USDOE/MD
Thomas E. Touchstone, DCS
PRA/EDMS: Corresp\Outgoing\NRC\Licensing\DCS-NRC-000034

MFFF Early Site Work Activities Summary

1. Removal of 115-kV overhead power line

A 115-kilovolt overhead power line currently runs through the northwest portion of the planned MFFF site. The line is suspended by a series of double-post wooden poles in a right-of-way that is bare of trees. This line will need to be removed from the proposed MFFF site because, for security reasons, overhead power lines are not permitted within the Protected Area fencing.

2. Clearing, grubbing, and grading

Preparation of the MFFF site to allow commencement of construction as soon as possible should the Director authorize construction requires that the site be cleared of approximately 28 acres of trees and underbrush, that tree stumps and roots be grubbed, and that the site be graded to a level elevation of approximately 273 feet above mean sea level. These activities will have a *de minimis* environmental impact that would be redressable with the planting of tree seedlings should the NRC eventually determine not to issue the Construction Authorization.

The trees that will be removed to prepare the MFFF site are not critical habitat, are not located in a wetland, and are located adjacent to a highly industrialized setting, on a controlled-access Federal facility. The F Area has historically been used as a plutonium processing area at the SRS. The F-Area plutonium processing "canyons" are located just south of the proposed MFFF site. These canyons are large, concrete, multi-story DOE-owned plutonium processing facilities surrounded by concrete and gravel, and enclosed within perimeter security fencing. The area is not environmentally sensitive.

In addition, the trees in the F-Area, like other trees at SRS, are a renewable, harvestable resource managed by the US Forest Service - Savannah River (USFS). The USFS, a part of the USDA Forest Service, manages the natural resources at the 198,000-acre SRS, including providing a marketable crop of timber to generate revenue from the sale of forest products. In 1999 alone, the USFS harvested 27,245 cubic feet of pine and hardwood, and planted and seeded 1,028 acres of loblolly, longleaf, and hardwood trees.¹ These numbers dwarf the approximately 28 acres that would be harvested to prepare the MFFF site for construction. In fact, the USFS has requested an opportunity to harvest trees marked for removal at the MFFF site. The USFS' historic management of the stand of timber at the SRS shows that the trees at the MFFF site could be replaced with new seedlings if the MFFF is not built.

Section 70.23(a)(7) defines commencement of construction to include "any clearing of land, excavation, or other substantial action that would adversely affect the environment of a site." While DCS is proposing to clear, grub and grade the MFFF site, it does not believe that such activities would be barred because:

- All work will be performed within the dedicated boundaries of the MFFF site at SRS;

¹SRS Natural Resource Management Fact Sheet, USFS, February 2000.

MFFF Early Site Work Activities Summary

- The area is not critical habitat or wetlands and is adjacent to a highly industrialized setting;
- The area to be cleared constitutes less than 0.02% of the SRS overall; approximately 13% of the SRS area was harvested by the USFS in 1999; the area to be cleared is approximately 0.1% of the area that was harvested in 1999;
- Trees on the SRS have been historically treated as a harvestable resource;
- The impact could be redressed by replanting tree seedlings if authorization to construct the MFFF at the proposed site is not granted.

3. Temporary construction facilities, underground utilities, roads, parking and storage areas

To prepare for the commencement of the construction of MFFF structures and support facilities, certain infrastructure activities should be performed. These include the placement of temporary construction trailers, extension of service utilities from the MFFF site perimeter onto the MFFF site, the performance of a site layout survey, development of temporary roads, parking areas, storage areas, and underground utilities, a sanitary sewer pump station, and the performance of finish grading for storm water containment and control.

The temporary construction facilities are required for use by early construction staff in order to manage and monitor site activities. The MFFF plan involves installation of temporary roadways, parking and laydown in the same locations as the planned MFFF permanent roadways and parking in order to avoid additional and unnecessary installations. The temporary roadways, parking lots and laydown areas will consist of a crushed stone base that can be easily removed when no longer required. Concurrently, the portion of the underground utilities that intersect the roadways underground will be installed to avoid disrupting the roadway at a later point in the construction schedule. The basic premise for the installation of temporary construction utilities is to connect to the permanent utility supply and to install the permanent design. Therefore, temporary connections to permanent service inside the MFFF site boundary will be utilized for construction purposes and will be subsequently removed or safely abandoned when no longer needed. Finish grading to contain storm water runoff is required to avoid site erosion and sedimentation. Temporary construction and utilities which are installed can subsequently be removed or safely abandoned underground.

4. Administration Building, Warehouse, Diesel Generator Building Standby Power, and Motor Control Center Slab

After clearing, grubbing, and grading, DCS will construct the above-referenced facilities. The Administration Building will be used to house contractor and DCS personnel. The Warehouse will be used to store construction materials and equipment during the early phases of construction. The Diesel Generator Building will contain the transformers and

MFFF Early Site Work Activities Summary

electrical equipment needed to serve the Administration Building. The diesel generator itself and its fuel supply would not be installed until after construction authorization is granted. The motor control center slab is a simple poured-concrete slab. If construction of the proposed MFFF were not authorized, these structures could be removed.

**Synopsis of Legal Standards
Governing Early Site Physical
Activities at the MFFF**

10 CFR § 70.23(a)(7) states, among other things, that an applicant may not commence construction of a fuel fabrication facility until the Director of Nuclear Material Safety and Safeguards (NMSS) makes certain environmental findings pursuant to 10 CFR Part 51. Commencement of construction includes "any clearing of land, excavation or other substantial action that would adversely affect the environment of a site. The term does not mean site exploration, roads necessary for site exploration, borings to determine foundation conditions, or other preconstruction monitoring or testing to establish background information related to the suitability of the site or the protection of environmental values." [10 CFR § 70.23(a)(7)]. In addition, 10 CFR § 70.23(b) provides that the Commission must approve construction of the "principal structures, systems, and components [SSCs] of a plutonium processing and fuel fabrication" facility before construction of such principal SSCs may commence.¹

10 CFR § 51.101(a)(1) states that until a record of decision (ROD) is issued in connection with a proposed licensing action for which an Environmental Impact Statement (EIS) is required, the Commission may take no action concerning the proposal that would have an adverse environmental impact or limit the choice of reasonable alternatives. However, 10 CFR § 51.101(c) states that:

This section does not preclude any applicant for an NRC...license...after prior notice and consultation with NRC staff, (i) from performing any physical work necessary to support an application, or (ii) from performing any other physical work relating to the proposed action if the adverse environmental impact of that work is *de minimis*.

Requirements similar to those above are found in 10 CFR Parts 50 and 51 applicable to the licensing of production and utilization facilities, and useful precedent has been established in the context of commercial nuclear power plant licensing proceedings. Part 50, like Part 70, prohibits construction activities before certain environmental determinations are made. See e.g., 10 CFR § 50.10.

While the Part 70 and Part 50 regulations above respectively prohibit the construction of fuel fabrication facilities and production and utilization facilities prior to the completion of appropriate environmental reviews, 10 CFR § 51.101(c) has been applied in the context of Part 50 to authorize the performance of certain physical activities having *de minimis* environmental impacts before issuance of a construction permit or limited work authorization (LWA) and before completion of an EIS. The same principles should be applied to the MFFF under Part 70. The applicable legal standard was established in Kansas Gas and Electric Co., (Wolf Creek Nuclear Generating Station, Unit No. 1), CLI-77-1, 5 NRC 1, 12 (1977), as follows:

Can the work be done with "so trivial an impact that it can safely be said that no conceivable harm would have been done to any of the interests sought to be

¹ None of the early site physical activities discussed in the attached letter involves construction of principal SSCs within the meaning of 10 CFR § 70.23(b).

protected by NEPA should the eventual outcome of [the] proceeding be a denial of the...application"? In Wolf Creek, the Commission added that "It is impossible to restore a virgin stand of timber; but one can, with some expense, pick up railroad tracks and ties and restore land to agricultural production In those instances in which damage is fully redressable, and the applicant is willing to obligate itself to undertaking such activities as are necessary to restore the site, a licensing board might in its discretion allow the applicant to proceed accordingly." (emphasis added).

Examples of *de minimis* activities that have been authorized by the NRC in the past include:

- construction of an access road to the site;
- upgrading of an existing site access road;
- development and use of laydown areas for storage of pre-purchased equipment on grazing land substantially clear of trees; and
- removal of about 1% of the trees on a heavily wooded plant site (with no unusual species).