



DUKE COGEMA
STONE & WEBSTER

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

11 December 2001
DCS-NRC-000075

Subject: Docket Number 070-03098
Duke Cogema Stone & Webster
Mixed Oxide Fuel Fabrication Facility
Changes to Information in *Mixed Oxide Fuel Fabrication Facility
Environmental Report*

- References:
- 1) R.H. Idhe (DCS) letter to W.F. Kane, DCS-NRC-000031, dated 19 December 2000, *Mixed Oxide Fuel Fabrication Facility Environmental Report*
 - 2) P.S. Hastings (DCS) letter to Document Control Desk, DCS-NRC-000053, Dated 12 July 2001, *Responses to Request for Additional Information on the Environmental Report*
 - 3) P.S. Hastings (DCS) letter to Document Control Desk, DCS-NRC-000067, dated 26 October 2001, *Response to Clarification Request – Responses to Request for Additional Information on the Duke Cogema Stone & Webster Mixed Oxide Fuel Fabrication Facility Environmental Report*

On 19 December 2000, DCS submitted the *Mixed Oxide Fuel Fabrication Facility (MFFF) Environmental Report* (Reference 1). Since that submittal DCS has responded to NRC's request for additional information (RAI) and a subsequent request for clarification of DCS responses to the RAI (References 2 and 3). In addition to the information contained in those responses, various other changes to information contained in the *Environmental Report* have occurred. Much of this information has been discussed in teleconferences with the NRC Staff; this letter is provided to formally document these changes.

1. Environmental Report (ER) Figure 3-1 on page 3-23 is changed to reflect a new configuration of the "MFFF site." The site still covers approximately 41 acres (see related discussion under item 3 below). A copy of the new site plan is enclosed with this letter.
2. ER Section 3.3.2.7 stated that, "Nonhazardous wastewater, exclusive of the potentially radioactive LLW rinse water, is discharged to the SRS F-Area sanitary sewer system that connects to the CSWTF." After consultation with SRS waste management staff, DCS has concluded that non-contact HVAC condensate should be discharged to the site stormwater system. This is consistent with South Carolina National Pollutant Discharge Elimination

System (NPDES) regulations and practices for other facilities on SRS. The discharge is condensed humidity from external air before the air enters the building.

3. Subsequent to the submittal of Reference 3, the MFFF water use [Clarification to RAI 49] has been recalculated as 4,692,000 gallons/year or 17,760,000 liters/year.
4. ER Section 1.2.1 stated that, "As part of the implementation of the surplus plutonium disposition facilities, the U.S. Department of Energy Savannah River Operations Office (DOE-SR) will provide integrated upgrades to F-Area infrastructure to support all three surplus plutonium disposition facilities." However, DOE has since expressed the intent to have DCS include these upgrades in the MFFF scope of work (the associated baseline change is currently in progress).

NRC was provided information on the environmental impacts of the infrastructure project as part of the responses to RAIs and clarifications to RAIs. As a result of the allocation of MFFF-related elements of the infrastructure project to the MFFF project, certain of these impacts have changed slightly, as summarized below and in Enclosure 1. One result of the allocation of certain of those infrastructure changes to the DCS/MFFF scope is an increase in the disturbed acreage contiguous to the MFFF site.

- The "MFFF Site": ER Section 6.1 states that, "...the construction and operation of the MFFF will disturb 49 ac (19.8 ha) of SRS land, ..." This area consists of the 41-acre MFFF site along with an additional ~8 acres disturbed in order to make the 41-acre site fully useable. This area has not changed.
- Sedimentation Basin and Stormwater Retention Pond: A ~3-acre retention/detention basin is described in the response to ER RAI question 23 in terms of the infrastructure project. Since that response, this basin has been sited contiguous to the MFFF site. Further, an unspecified offsite stormwater retention pond has been sized at ~10 ac and sited contiguous to the MFFF site.
- MFFF Site Spoils and APSF Spoils Pile: The original intent was for spoils from MFFF site grading and the existing APSF spoils pile to be deposited off the 41-acre MFFF site. Allocation of the infrastructure work includes leveling/grading spoils and the APSF spoils pile in an area contiguous to the MFFF site. These spoils will be used as fill for the lower areas to the northeast and northwest of the MFFF site, resulting in an increase to the contiguous disturbed area of approximately 19 ac. Distribution of the APSF spoils contiguous to the MFFF site accounts for approximately 5 of 19 ac, and the MFFF site spoils distribution accounts for approximately 14 of 19 ac. While the previously planned deposition site was not specifically determined, and thus comparison of disturbed area is very coarse, much of this disturbance would previously have occurred off the MFFF site, as discussed below.

The net result of these changes is an increase in the *contiguous* disturbed area from 49 acres to 81 acres. The additional disturbed area created by the deposition of spoils in areas contiguous to the MFFF site includes the existing 115-kv transmission line right-of-way and the dirt road currently between the MFFF site and the Old F-Area Seepage Basin. This disturbed area, part of the overall "increase" in disturbed area, would have existed in any event, but is now contiguous to the MFFF site. Note also that the relocation of the 115-kv transmission line, impacting ~11 acres as described in the answer to ER RAI 27, has not changed, except that future changes may incorporate this additional disturbed area into the 81-acre contiguous disturbed area (final location of the 115-kv transmission line will be determined by the local power company).

The impact of the increase in contiguous disturbed area should be minimal. The new grading plan avoids wetland areas near the unnamed tributary east of the MFFF site (indeed, an increase in disturbed area with minimal impact was chosen in lieu of a smaller areal impact that would have impacted the wetland area). There are no critical habitats or endangered species in the additional disturbed area. Vegetation is similar to vegetation on the existing MFFF site. The grading will occur during the first three to six months of the construction schedule. After that time any transient effects of the additional disturbed area should cease to occur. The work will not require additional construction equipment but will use approximately 35,000 additional gallons of diesel fuel. The areas outside the 41-acre MFFF site will be seeded to prevent erosion or any significant increase to fugitive dust.

Further, while a comparison of strict areal impact between the original plan and the revised plan is not possible (owing to the uncertainty in where spoils would originally have been deposited off the MFFF site), the spoils clearly would have been deposited elsewhere under the original plan. Thus, much of the increase in contiguous disturbed area represents a trade-off of what would have been a very similar impact under the original plan. For example, the APSF spoils pile, which represents approximately 5 acres of the "additional" disturbed area, would have represented an analogous offsite impact under the original plan. Similarly, MFFF site grading spoils would have resulted in an offsite impact.

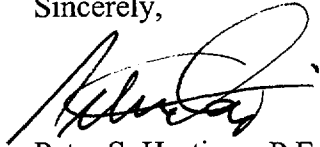
The changes in the contiguous and non-contiguous disturbed areas are described in Enclosure 1.

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A preliminary contour map showing the 81-acre area is enclosed with this letter. As with the remaining infrastructure work, the changes to include this work as part of the MFFF project are currently being processed.

If you have any questions, please call me at (704) 373-7820 or Mary Birch at (704) 382-1401.

Sincerely,



Peter S. Hastings, P.E.
Licensing Manager

Enclosures: 1) Total Disturbed Area
2) Revised Site Plan
3) Preliminary Site Contour Map

xc w/enclosures:

Timothy E. Harris, USNRC/HQ
Edwin D. Pentecost, ANL
PRA/EDMS: Corresp\Outgoing\NRC\Licensing\DCS-NRC-000075

xc w/out enclosures:

Charlotte E. Abrams, USNRC/HQ
David Alberstein, NNSA/HQ
Mary L. Birch, DCS
Theodore J. Bowling, DCS
Edward J. Brabazon, DCS
Jack P. Clemmens, DCS
B. Jennifer Davis, USNRC/HQ
Thomas H. Essig, USNRC/HQ
Sterling M. Franks III, NNSA/SR
Joseph G. Giitter, USNRC/HQ
Robert H. Ihde, DCS
James V. Johnson, NNSA/HQ
Eric J. Leeds, USNRC/HQ
John E. Matheson, DCS
Andrew Persinko, USNRC/HQ
Robert C. Pierson, USNRC/HQ
Donald J. Silverman, Esq., DCS
Thomas E. Touchstone, DCS

Enclosure 1 - Total Disturbed Area

Description	Previous Disturbed Area	Revised Disturbed Area	Anticipated Impact of Change	Basis for Additional Disturbed Area	Comments/Notes
MFFF “site”	41 ac [ER §5.1.2, pg 5-2]	41 ac	No change	Not applicable	Original space allocated to MFFF by DOE
	8 ac [ER §5.1.2, pg 5-2]	8 ac	No change	Not applicable	Original grading to northeast to level 41 ac
Sedimentation basin and stormwater detention pond	Retention/detention basin 3 ac offsite [ER RAI questions 22 and 23]	<u>Sedimentation basin</u> 3 ac <u>Stormwater detention pond</u> 10 ac	No change (Note 1)	Siting/sizing of ponds (previously not specifically sited)	Currently evaluating design for stormwater detention pond; 10-ac revised disturbed area is preliminary but expected to be bounding
Site spoils APSF spoils	Unspecified offsite	~19 ac (Note 2)	Minimal (Note 3)	Infrastructure work scope allocated to MFFF	Includes incorporation of previously disturbed road and right-of-way
Total contiguous disturbed area		81 ac			
Power line relocation	11 ac offsite [ER RAI questions 27 and 47]	11 ac (Note 4)	No change or reduced impact if incorporated into contiguous disturbed area	Siting (not yet determined)	Location to be determined by local power company; 11-ac impact based on current design, but net result could be as small as 5 ac or as large as 13 ac
Other offsite impacts	11.5 ac offsite	11.5 ac offsite	No change		Includes 1.5 ac for high- α waste line [ER RAI question 20], 5 ac for access roads [ER RAI question 27], and 5 ac for utilities [Clarification to ER RAI question 47] (Note 5)

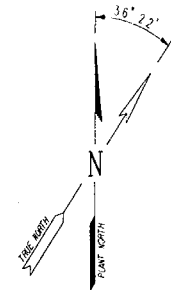
Note 1: The stormwater basin was originally considered non-contiguous because siting had not been determined by the infrastructure project; in addition, at the time the ER RAI responses were generated, the sedimentation basin and stormwater detention pond had not been separately sized. They can now be considered contiguous because they are sited immediately adjacent to the “MFFF site,” and review of the infrastructure conceptual design yields the sizes indicated above. The detention pond in particular is under evaluation and may decrease in size.

Note 2: ER RAI responses did not reflect this change because it had not yet occurred. The contour map attached to CAR RAI response 23 inadvertently reflected the preliminary change (i.e., drawing assumed additional contiguous disturbed area); the response did not discuss the additional disturbed area explicitly because the change had not been baselined.

Note 3: The increased contiguous spoils distribution is not significant with respect to wetlands, vegetation, critical habitat, endangered species, or archaeological sites. The additional area requires additional diesel fuel (~35,000 gal) during grading (previously an unspecified offsite impact). A larger disturbed area with minimal impact was selected in favor of a smaller disturbed area with significant impact (i.e., wetlands). Note that additional contiguous disturbed area resulting from distribution of spoils displaces a potentially significant but unspecified offsite (i.e., non-contiguous) disturbed area.

Note 4: Disturbed area from power line relocation may be offsite OR may be onsite as part of spoils impact identified above (depending on final siting).

Note 5: Total “other offsite impacts” does not include 5-10 ac for the temporary concrete batch plant [ER §5.1.4, pg 5-4, and RAI question 24], which is in the process of being designed and sited. The batch plant is expected to be sited in a previously disturbed area in the vicinity of an existing ash basin adjacent to the east side of the F Area, and will be dismantled after MFFF construction.

$$\begin{array}{r} \text{E54400} \\ \text{N80900} \end{array}$$


MDX FUEL FABRICATION BUILDING (BMF)

BMP MOX FUEL FABRICATION AREA

BMP MOX FUEL FABRICATION AREA

BAP AQUEOUS POLISHING AREA
BSR SHIPPING AND RECEIVING AREA

SUPPORT BUILDINGS/STRUCTURES

SUPPORT BUILDINGS/STRUCTURES

BTS TECHNICAL SUPPORT BUILDING

BAD ADMINISTRATION BUILDING
BRW RECEIVING WAREHOUSE

BSW SECURED WAREHOUSE
BRB REAGENTS PROCESSING BUILDING

BSG STANDBY DIESEL GENERATOR BUILD

BEG EMERGENCY DIESEL GENERATOR BUILDING
SAS SECONDARY ALARM STATION

UEF EMERGENCY DIESEL FUEL STORAGE VAULT
UCS GAS STORAGE AREA

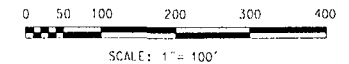
UOS GAS STORAGE AREA
WVA VEHICLE ACCESS PORTAL

AREAS:

AREAS:

SITE BOUNDARY AREA	41.32 ACRES
INELUSIVE AREA	17.02 ACRES

INSIDE FENCE AREA	13.29 ACRES
OUTSIDE FENCE AREA	28.03 ACRES

[illegible]

Enclosure 3 – Preliminary Site Contour Map

