Enclosure 2

"NRC Requests for Additional Information (RAIs) for Cooper Cycle 24
SLMCPR Technical Specification Change Letter"
(GNF S-0000-0078-5310 Rev 0, December 13, 2007)

Non-Proprietary Version

Cooper Nuclear Station, Docket No. 50-298, DPR-46

GNF

Global Nuclear Fuel

GNF Non-Proprietary Information
Class I

GNF S-0000-0078-5310 Rev 0

December 13, 2007

NRC Requests for Additional Information (RAIs)

for

Cooper Cycle 24 SLMCPR Technical Specification Change Letter

Responsible Engineer:

W. Bennett

Approving Manager:

A. P. Reese

Authorizing Document: WA HP106E001, Revision 3

Verification Status: Verified

Proprietary Information Notice

This document is the GNF non-proprietary version of the GNF proprietary report. From the GNF proprietary version, the information denoted as GNF proprietary (enclosed in double brackets) was deleted to generate this version.

NRC RAI QUESTIONS AND ANSWERS

Background

The Nuclear Regulatory Commission (NRC) has submitted a Request for Additional Information (RAI) regarding Cooper Nuclear Station's (CNS) SLMCPR License Amendment Request (LAR) for Cycle 24 (see Reference). These requests were provided to Global Nuclear Fuel (GNF) by CNS. The following are those requests and the associated GNF responses.

RAIs[§]

1. Please describe how the Gardel uncertainties are used in computing the CNS SLMCPR.

2. Please provide the total number of bundles of each fuel type in Figs. 1 and 2 of Encl.1 of the LAR.

3. Please explain why there is no askew axial power distribution in Cycle 24.

4. Please discuss how GE14 fuel is accounted for in Fig.5 of Encl.1 of the LAR.

5. Please provide the coefficient and standard deviation values used in the calculation.

[§] See Reference.

GNF Response

1. Please describe how the Gardel uncertainties are used in computing the CNS SLMCPR.

Response: CNS will answer.

2. Please provide the total number of bundles of each fuel type in Figs. 1 and 2 of Encl.1 of the LAR.

Response: a) Number of bundles of each Fuel Type for Cycle 24 (current cycle).

CHANNEL TYPE	NO. IN CORE	BUNDLE NAME
A	22	GE14-P10HNAB385-14GZ-100T-148-T6-3881
B	2	GE14-P10HNAB385-14GZ-100T-148-T6-3881
C	104	GE14-P10HNAB379-17GZ-100T-150-T6-2476
D	88	GE14-P10DNAB393-17GZ-100T-150-T6-2611
E	40	GE14-P10DNAB398-16GZ-100T-150-T6-2569
F	76	GE14-P10DNAB395-14GZ-100T-150-T6-2800
G	88	GE14-P10DNAB393-17GZ-100T-150-T6-2801
H	88	GE14-P10DNAB385-13GZ-100T-150-T6-2901
I	40	GE14-P10DNAB386-14GZ-100T-150-T6-2902

b) Number of bundles of each Fuel Type for Cycle 23 (previous cycle).

CHANNEL TYPE	NO. IN CORE	BUNDLE NAME
A	110	GE14-P10HNAB385-14GZ-100T-148-T6-3881
B	2	GE14-P10HNAB385-14GZ-100T-148-T6-3881
C	24	GE14-P10HNAB385-14GZ-100T-148-T6-3881
D	120	GE14-P10HNAB379-17GZ-100T-150-T6-2476
E	88	GE14-P10DNAB393-17GZ-100T-150-T6-2611
F	40	GE14-P10DNAB398-16GZ-100T-150-T6-2569
G	76	GE14-P10DNAB395-14GZ-100T-150-T6-2800
H	88	GE14-P10DNAB393-17GZ-100T-150-T6-2801

GNF Non-Proprietary Information
Class I

3. Please explain why there is no askew axial power distribution in Cycle 24.

Response: Due to Cooper's Cycle 24 [[

]], no askew axial power distributions are anticipated for Cycle 24.

4. Please discuss how GE14 fuel is accounted for in Fig.5 of Encl.1 of the LAR.

Response: GE12 and GE14 are both a 10x10 lattice [[

]] that is shown in Figure 5. The
last sentence in Section 2.6 confirms that for Cooper Cycle 24, [[

]] the Figure 5 plotted data. In fact, Figure 5 shows [[

]].

5. Please provide the coefficient and standard deviation values used in the calculation.

Response: The coefficient and standard deviation values used in the approximation formula
to estimate the SLMCPR are:
[[

]]

Reference

E-mail from Carl Lyon, Nuclear Regulatory Commission, to Ronald E. Rogers, Cooper
Nuclear Station, "RAI for Cooper SLMCPR LAR (TAC No. MD6579)", December 6, 2007.