



Nebraska Public Power District

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NLS2020001
January 20, 2020

50.46(a)(3)(ii)

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Annual Report of Changes and Errors in Emergency Core Cooling System
Evaluation Models for 2019
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Reference: Letter from Jim Shaw, Nebraska Public Power District, to U.S. Nuclear
Regulatory Commission, dated January 11, 2019, "Annual Report of Changes and
Errors in Emergency Core Cooling System Evaluation Models for 2018"

Dear Sir or Madam:

The purpose of this letter is to submit the 2019 annual report of changes and errors in the
Emergency Core Cooling System (ECCS) evaluation models pursuant to 10 CFR 50.46(a)(3)(ii)
for Cooper Nuclear Station (CNS).

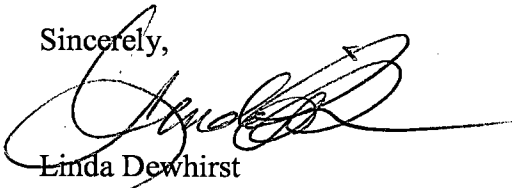
Per the reference letter, Nebraska Public Power District previously reported errors/changes in the
ECCS evaluation models for GE14 and GNF2 fuel. For GNF2 fuel these errors continued to
apply to the ECCS evaluation methodologies for 2019. The last GE14 fuel was discharged from
the reactor at the end of Cycle 30 (September 2018), therefore no data for the GE14 fuel type is
included in this letter. There was one zero-degree error for the GNF2 fuel type reported in 2019
applicable to the licensing basis peak clad temperature (PCT). CNS continues to comply with
the PCT limit of 2200°F specified in 10 CFR 50.46(b)(1).

Attachment 1 to this letter itemizes the changes/errors in the ECCS evaluation models that
remained applicable in 2019 and Attachment 2 provides data that demonstrates compliance with
the ECCS performance requirements of 10 CFR 50.46.

This letter makes no regulatory commitments.

If you have any questions regarding this report, please contact Stephen Luther, Engineer, at (402)
825-5267.

Sincerely,



Linda Dewhirst
Regulatory Affairs & Compliance Manager

ADDZ
NRR

/tf

Attachments: 1) Changes/Errors in Emergency Core Cooling System Evaluation Models
Applicable in 2019

2) 10 CFR 50.46 Criteria in Emergency Core Cooling System Evaluation Models
for 2019

cc: Regional Administrator w/attachments
USNRC - Region IV

Cooper Project Manager w/attachments
USNRC - NRR Plant Licensing Branch IV

Senior Resident Inspector w/attachments
USNRC - CNS

NPG Distribution w/attachments

CNS Records w/attachments

Changes/Errors in Emergency Core Cooling System Evaluation Models Applicable in 2019GNF2 Fuel

GE Hitachi 10 CFR 50.46 Notification Letter	Date	Subject	PCT Impact
2017-01	6/12/17	GNF2 Lower Tie Plate Leakage	-20°F
2017-02	8/2/17	Fuel Rod Plenum Temperature Update	0°F
2019-05	11/1/19	SAFER Lower Limit on Differential Pressure for Bypass Leakage	0°F
			Total = -20°F

10 CFR 50.46 Criteria in Emergency Core Cooling System Evaluation Models for 2019

Fuel Type	Licensing Basis PCT	Local Oxidation	Core-Wide Metal-Water Reaction
GNF2	2130°F	<6.00%	<0.10%