



Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

NEDO-24011-A-16
Class I
July 2006

Global Nuclear Fuels – Americas

Licensing Topical Report

**General Electric Standard Application
for Reactor Fuel**

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Proprietary information of GNF has been removed from this non–proprietary version of GESTAR II. The information removed was contained between opening double brackets ([[) and closing double brackets (]]).

Change bars in the margin indicate the latest revision.

GESTAR II
Revision Status Sheet

Revision No.^a	Amend. No.	GE Amend. Reference^b	NRC Approval Reference^b	Amendment Content
5	5	1 & 2	3	Administrative.
6	6	4	5	Incorporation of barrier clad.
7	7	6	7	GESTR-M fuel mechanical code application.
	8	8	9	Generic stability approach.
	9	10	11	Administrative.
8	10	12	13 & 14	Incorporation of GE8x8E and GE8x8EB fuel designs.
	11	15	16 & 17	Revised ODYN (GEMINI methods).
	12	18	19	Generic CRDA analysis for group notch plants utilizing BPWS.
	13	20	21	Administrative.
9	14	22	23	Safety limit MCPR reduction.
	15	24 & 25	26 & 27	GEXL-Plus correlation.
	16	28	29	Administrative.
	17	30	31	Modified requirements for rod pattern control system.
	18	32	33	Incorporation of GE8x8NB fuel design.
	19	34	35	Changes to technical specifications for power distribution limits.
10	21	36	37	Incorporation of GE8x8NB-1, -2, and -3 fuel designs.
	22	38 & 39	40	Fuel licensing acceptance criteria.
		41	42	Fuel channel bow effect on thermal margins.
11		43	44	TVAPS added and refueling accident updated to incorporate GE11 and later fuel designs.

^a Only approved amendment are incorporated into a revision to GESTAR. Usually several approved amendments are combined together and incorporated into the document as one revision. GESTAR II began with Revision 4.

^b See following pages for references.

Revision No.^a	Amend. No.	GE Amend. Reference^b	NRC Approval Reference^b	Amendment Content
12			45	Superceded by Revision 13.
13		46	47	Cold water event determination.
14	25	48	49	Cycle-specific Safety Limit MCPR.
	26	50	51, 52	Administrative including approvals of Stability and ATWS, inclusion of MLHGR, classifying PRDF, implementing improved GE steady-state methods, et. al.
15	27	53, 54	55, 56	Administrative including approvals of LOCA's SAFER/GESTR, Upper Bound PCT, and TASC; and TRACG. Also, clarified position on stability. Several errors corrected on reload licensing. Other minor errors cleaned up.
16	28	57	58	The fuel loading error event is now analyzed as an Infrequent Incident. A generic bounding analysis is applied when the plant confirms site specific information and that the plant's fuel loading verification procedures meet the requirements defined in the US Supplement Section S.5.3.

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