

DISTRIBUTION

Docket

ORB #2 Reading

Subject File

RMDiggs

RPSnaider

APR 14 1976

PDR

Docket Files (50-263)

THRU: Dennis L. Ziemann, Chief, Operating Reactors Branch #2

Attached are the answers to the questions regarding fuel usage which I forwarded to the licensee by phone Monday, April 12, 1976. Completion of the questionnaire was voluntary.

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Richard P. Snaider
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Answers

cc w/attach.
T. J. Carter

OFFICE	DOCK OR: ORB #2	DOCK OR: ORB #2			
SURNAME	RPSnaider:ah	DLZiemann			
DATE	4/14/76	4/14/76			

MONTICELLO NUCLEAR GENERATING PLANT - 4/14/76

KRC Question	Reload 1	Reload 2	Reload 3	Reload 4
1. Outage Dates	3/2/73 to 5/19/73	3/15/74 to 5/21/74	1/9/75 to 2/7/75	9/10/75 to 11/19/75
2. Reload U^{235} Enrichment (w/o)	2.30	2.25/2.62	2.50	2.19
3. Fraction Pre-exposed Pre-exposure (MWD/MGU) Quantity of UC_2 (kg)	0 0 4.44	.178 8050/0 1.68/24.13	0 0 16.64	0 0 35.74
4. Predicted Exposure (see notes)	-	-	-	-
5. Average Discharge Exposure ($\frac{MWD}{MGU}$)	7850	13,750	15,930	16,900
6. Discharge U^{235} Enrichment (see notes)	1.53	1.15	1.04	0.98
7. Discharge Pu^{239} Enrichment (see notes)	.33	.41	.42	.43
8. Cladding Material	Zircaloy	Zircaloy	Zircaloy	Zircaloy
9. Sufficient Reactivity	Yes	Yes	Yes	Yes
10. Reason for Early Shutdown (see notes)	-	-	-	-
11. Exposure Calculation Method (see notes)	-	-	-	-
12. Energy Produced (MWD ₀)	250,000	141,000	98,000	100,000

NOTES OF ADDITIONAL INFORMATION

1. Outage dates reported are based on date of generator synchronization.
2. The Reload 2 fuel includes initial core fuel reinserted after residing in the spent fuel pool for one cycle.
3. Fraction of fuel that was pre-exposed is based on the number of assemblies.
- 4 & 5. The initial core fuel was initially projected to operate 21,000 $\frac{MWD}{MTU}$. (Reloads 1 through 4 have replaced all initial core fuel; no fuel of that type remains in the reactor. No fuel of another type has been discharged to date.) It was realized that some of that fuel would be discharged prematurely to establish the equilibrium cycle. Reload 1 consisted of 20 assemblies which were used to replace leaking assemblies during the curtain removal outage. Discharge of this fuel at the low exposure reported was not anticipated.
- 6 & 7. The reported values represent the weight percent of the isotope with respect to the initial uranium weight.
10. For each cycle, there was sufficient reactivity available to operate at full power at the time of the outage. Reactor power was restricted at the end of each cycle by voluntary administrative limits on plant off-gas attributed to leaking initial core fuel assemblies.
11. Exposure accounting is done by three methods; using the plant process computer which evaluates in-core power instrumentation, an NSP off-line simulator and a fuel supplier off-line simulator. The numbers reported above are provided by the plant process computer.
12. The values reported for "energy produced" refer to the fuel cycle preceding each reload outage.