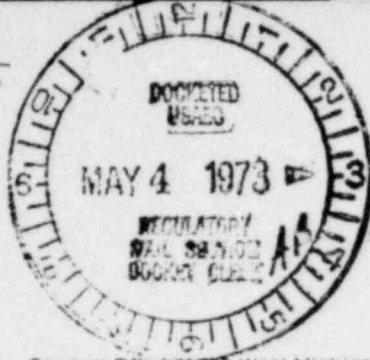


Regulatory

File 5Y.



Consumers
Power
Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550



May 2, 1973

Mr. John F. O'Leary, Director
Directorate of Licensing
US Atomic Energy Commission
Washington, DC 20545

Re: Docket No 50-155
License No DFR-6

Dear Mr. O'Leary:

By letter dated September 1, 1972, Consumers Power Company reported that recent test measurements indicated the Big Rock Point Plant off-gas holdup time to be approximately 16 minutes as opposed to the design holdup limit of 30 minutes. At that time, we stated that an internal inspection of the holdup pipe would be conducted during the next refueling outage and, until that time, the release rates would be based on a holdup time as determined by the monthly tests.

The internal inspection of the pipe was conducted during the recently completed refueling outage and showed that the pipe was installed according to the design specifications and it is free of obstructions and/or water pockets. This verifies the theory that the decrease in holdup time from that of the original design is due to stratification of the gases. This stratification would appear to be in existence because of the gas density differences (ie, xenon density is about 70 times the density of hydrogen). Other measurements taken during plant operation show that the reduced holdup time is not due to excessive air inleakage.

As a result of the slightly higher decay energy of the shorter-lived species of noble gases and daughter products (16 minutes holdup time versus 30 minutes holdup time), the corresponding calculated site boundary dose also changes. The factor by which previously calculated site boundary doses are to be adjusted are:

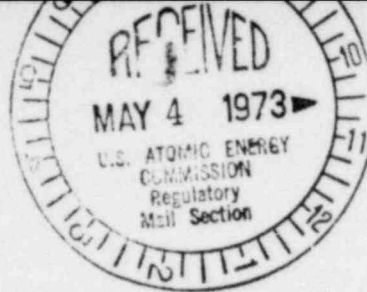
Equilibrium Mixture - 1.2
Diffusion Mixture - 1.4

(Recoil mixtures of nuclides are either not observed or are insignificant relative to equilibrium or diffusion mixture contributions.)

8101100698

2935

Mr. John F. O'Leary
Docket No 50-155
License No DPR-6
May 2, 1973



2

The difference in calculated dose between 30 minutes and 16 minutes delay time decreases as a function of distance from the point of release. Thus, the calculated dose to any population area remains essentially unchanged.

The controlling species of particulate and halogen releases are unchanged by a reduction in holdup time.

Since the 16-minute holdup time has been verified to exist with the corresponding off-gas flow rate of 10 cfm and monthly tests over the past six months indicate it is not changing, these monthly tests have been discontinued. If a change in off-gas flow rate indicates a possible reduction in holdup time, additional tests will be conducted. Since the off-gas flow rate has averaged approximately 10 cfm since initial plant operation, all previous off-gas release rates will be adjusted to reflect the 16-minute holdup time. The adjusted numbers will be included in the next semiannual report (No 18).

Yours very truly,

A handwritten signature in cursive script that reads "Ralph B. Sewell".

Ralph B. Sewell
Nuclear Licensing Administrator

RBS/mel

CC: BHGrier, USAEC

FROM: Consumers Power Company Jackson, Michigan 49201 Ralph B. Sewell	DATE OF DOC:	DATE REC'D	LTR	MEMO	RPT	OTHER
	5-2-73	5-4-73	X			
TO: Mr. O'Leary	ORIG	CC	OTHER	SENT AEC PDR <u>X</u>		
	1 signed			SENT LOCAL PDR _____		
CLASS: <u>U/PROP INFO</u>	INPUT	NO CYS REC'D	DOCKET NO:			
		39	50-155			

DESCRIPTION:
Ltr re their 9-1-72 ltr....furnishing info re the internal inspection of the holdup pipe....

ENCLOSURES:

Do Not Remove
ACKNOWLEDGED

PLANT NAMES: Big Rock

FOR ACTION/INFORMATION 5-4-73 AB

BUTLER(L) W/ Copies	SCHWENCER(L) W/ Copies	✓ ZIEMANN(L) W/ 9 Copies	YOUNGBLOOD(E) W/ Copies
CLARK(L) W/ Copies	STOLZ(L) W/ Copies	ROUSE(FM) W/ Copies	REGAN(E) W/ Copies
GOLLER(L) W/ Copies	VASSALLO(L) W/ Copies	DICKER(E) W/ Copies	W/ Copies
KNIEL(L) W/ Copies	SCHEMEL(L) W/ Copies	KNIGHTON(E) W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

✓ REG FILE	TECH REVIEW	DENTON	F & M	WADE	E
✓ AEC PDR	HENDRIE	GRIMES	SMILEY	BROWN	E
✓ OGC, ROOM P-506A	SCHEMEL	GAMMILL	NUSSBAUMER	G. WILLIAMS	E
MUNTZING/STAFF		KASTNER		SHEPPARD	E
CASE		BALLARD	LIC ASST.		
GIAMBUSSO	PAWLACKI	SPANGLER	SERVICE	L	A/T IND
BOYD	SHAO		WILSON	L	BRAITMAN
V. MOORE-L(BWR)	STELLO	ENVIRO	GOULBOURNE	L	SALTZMAN
DEYOUNG-L(PWR)	HOUSTON	MULLER	SMITH	L	
✓ SKOVHOLT-L	NOVAK	DICKER	GEARIN	L	PLANS
P. COLLINS	ROSS	KNIGHTON	DIGGS	L	MCDONALD
	IPPOLITO	YOUNGBLOOD	TEETS	L	DUBE
REG OPR	TEDESCO	REGAN	LEE	L	
✓ FILE & REGION(2)	LONG	PROJ LEADER	MAIGRET	L	INFO
MORRIS	LAJNAS		SHAFFER	F & M	C. MILES
STEELE	BEVAROYA	HARLESS			
	VOLLMER				

EXTERNAL DISTRIBUTION

1-LOCAL PDR	(1)(2)(9)-NATIONAL LAB'S	1-PDR-SAN/LA/NY
✓ 1-DTIE(/BERNATHY)	1-R. CARROLL-C, GT-B227	1- GERALD LELLOUCHE
✓ 1-NSIC(BUCHANAN)	1- R. CATLIN,E-256-GT	BROOKHAVEN NAT. LAB
1-ASLB-YORE/SAYRE	1- CONSULTANT'S	1-AGMED(WALTER KOESTER,
WOODWARD/H ST.	NEWMARK/BLUME/AGABIAN	RM C-427, GT)
✓ 16-CYS ACFS WELBING SENT TO LIC ASST.	1- GERLAD ULRIKSON....ORNL	1- RD...MULLER...F-309GT
R. Diggs on 5-4-73		

POOR ORIGINAL