NSP

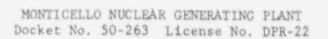
## NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA BB401

December 30, 1976

Mr D L Ziemann, Chief Operating Reactors Branch #2 Division of Operating Reactors U S Nuclear Regulatory Commission Washington, DC 20555

Dear Mr Ziemann:



## Fission Gas Release-Fuel Rod Internal Pressure

The information requested in your November 23, 1976 letter on this subject is contained in a General Electric letter from G G Sherwood (GE) to D F Ross (NRC) dated December 22, 1976. The General Electric letter presents results of bounding calculations which are applicable to Monticello. At the present time, the peak local expsoure at Monticello is approximately 22,000 MWD/MTU.

Yours very truly,

L.O. Maye

L O Mayer, PE

Manager of Nuclear Support Services

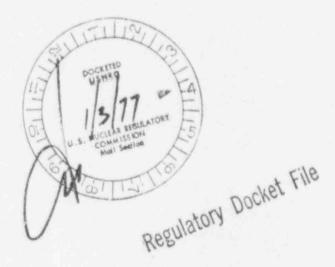
LOM/deh

cc: J G Keppler

G Charnoff

MPCA

Attn: J W Ferman



9105160378 761230 PDR ADDCK 05000263 44

IRC FORM 195			U.S.	NUCLEAR	REGULATOR	Y CC HISSION	DOC	KET NUMBER 50-263	
					Eu e	NUMBER			
NRC DISTRIBU	TION	FOR PAR	T 50 DOCKE	TMATE	RIAL		1161	NUMBER	
Mr. D. L. Ziemann  MLETTER DNOTORIZED			FROM:				DAT	E OF DOCUMENT	
			Northern States Power Company Minneapolis, Minnesota L. O. Mayer			12/30/76 DATE RECEIVED 1/3/77			
								PROP INPU	
			MORIGINAL MUNC	LASSIF	IED	A 200			
								One signed	
ESCRIPTION				ENCL	DSURE				
Ltr. re our 11/23/76 Electric 12/22/76 19 Fission Gas Release- Pressure.  PLANT NAME: Monticello	tr	.concern	ing	(1	-P)			LEDGED REMOVE	
SAFETY	THE RESERVE		FOR ACTIO	NINFOR	MATION	ENUTED I	747	77 R.II.	
ASSIGNED AD:		Golle	Γ	N/INFOR		VIII A T 1/1/1	747	77 RJL	
ASSIGNED AD: BRANCH CHIEF:		Ziema	r na	N/INFOR	ASSIGNED	AD:	747	77 RJL	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER:		Ziema Snaid	r na er	N/INFOR	ASSIGNED BRANCH CI PROJECT N	AD: HIEF: MANAGER:	747	77 RJL	
ASSIGNED AD: BRANCH CHIEF:		Ziema	r na er	DN/INFOR	ASSIGNED BRANCH CI	AD: HIEF: MANAGER:	747	77 RJL	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER:		Ziema Snaid	r na er	DN/INFOR	ASSIGNED BRANCH CI PROJECT N	AD: HIEF: MANAGER:	747	77 RJL	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER:		Ziema Snaid	r nu er		ASSIGNED BRANCH CI PROJECT N LIC, ASSI	AD: HIEF: MANAGER:	747	77 RJL	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:		Ziema Snaid Diggs	r nu er INTERNA		ASSIGNED BRANCH CI PROJECT N LIC, ASSI	AD: HIEF: MANAGER:	747		
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR		Ziema Snaid Diggs	T THE INTERNA S SAFETY		ASSIGNED BRANCH CI PROJECT N LIC. ASST	AD: HIEF: MANAGER:	747	SITE SAFETY &	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2)		Ziema Snaid Diggs	INTERNA S SAFETY		ASSIGNED BRANCH CI PROJECT N LIC, ASSI	AD: HIEF: MANAGER: F.:	747	SITE SAFETY & ENVIRO ANALYSIS	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2-) OELD		Ziema Snaid Diggs SYSTEMS HEINEM	INTERNA S SAFETY		ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA	AD: HIEF: MANAGER: F.:	747	SITE SAFETY &	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2) OELD GOSSICK & STAFF		Ziema Snaid Diggs SYSTEMS HEINEM	INTERNA S SAFETY AN DER		ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS	AD: HIEF: MANAGER: F.:	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC		Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEI	INTERNA S SAFETY AN DER		ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO	AD: HIEF: MANAGER: F.:	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH.	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE		Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEI	INTERNA S SAFETY AN DER ERING		ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS	AD: HIEF: MANAGER: F.:	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER		Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEL ENGINER MACARRY	INTERNA S SAFETY AN DER ERING		ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD	AD: HIEF: MANAGER: F.:	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE		Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEI ENGINEE MACARRY KNIGHT	INTERNA S SAFETY AN DER ERING		ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD	AD: MIEF: MANAGER: T. :	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS		Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEI ENGINER MACARRY KNIGHT SIHWEII PAWLICE	INTERNA S SAFETY AN DER ERING Y		ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING	AD: HIEF: MANAGER: F.: STEMS	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT		Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEI ENGINER MACARRY KNIGHT SIHWEII PAWLICE	INTERNA S SAFETY AN DER ERING		ASSIGNED BRANCH CI PROJECT N LIC. ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING	AD: HIEF: MANAGER: F.: STEMS	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD		Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEI ENGINER MACARRY KNIGHT SIHWEII PAWLICE	INTERNA S SAFETY AN DER ERING Y		ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING	AD: HIEF: MANAGER: T.: STEMS G REACTORS G TECH.	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH.	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS	X	Ziema Snaid Diggs SYSTEMS HEINEMA SCHROEI ENGINER MACARRY KNIGHT SIHWEII PAWLICE	INTERNA S SAFETY AN DER ERING Y		ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING	AD: HIEF: MANAGER: T.: STEMS G REACTORS G TECH.	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON	X	Ziema Snaid Diggs  SYSTEMS HEINEMA SCHROEI  ENGINER MACARRY KNIGHT SIHWEII PAWLICE REACTOR	INTERNA S SAFETY AN DER ERING Y L KI R SAFETY		ASSIGNED BRANCH CI PROJECT N LIC. ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO	AD: HIEF: MANAGER: T.: STEMS  G REACTORS  G TECH. (AM.)	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON	X	Ziema Snaid Diggs  SYSTEMS HEINEMSCHROEI ENGINEE MACARRY KNIGHT SIHWEII PAWLICE REACTOR ROSS NOVAK ROSZTOC CHECK	INTERNA S SAFETY AN DER ERING Y  KI R SAFETY		ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER	AD: HIEF: MANAGER: T.: STEMS G REACTORS G TECH.	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ	X	Ziema Snaid Diggs  SYSTEMS HEINEMSCHROEI ENGINEE MACARRY KNIGHT SIHWEII PAWLICE REACTOR ROSS NOVAK ROSZTOC CHECK	INTERNA S SAFETY AN DER ERING Y  KI R SAFETY		ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER	AD: HIEF: MANAGER: T.: STEMS  G REACTORS  G TECH. (AM.)	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES	X	Ziema Snaid Diggs  SYSTEMS HEINEM SCHROEI  ENGINER MACARRY KNIGHT SIHWEII PAWLICH REACTOR ROSS NOVAK ROSZTOO	INTERNA S SAFETY AN DER ERING Y CZY		ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER GRIMES	AD: HIEF: MANAGER: F.: STEMS  G REACTORS  G TECH. ((>>)	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN  SITE ANALYSIS VOLLMER	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ	X	Ziema Snaid Diggs  SYSTEMS HEINEMA SCHROEI  ENGINER MACARRY KNIGHT SIHWEII PAWLICE  REACTOR ROSS NOVAK ROSZTOC CHECK R. ME	INTERNA S SAFETY AN DER ERING Y CZY EXER	L DISTRI	ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER GRIMES	AD: HIEF: MANAGER: T.: STEMS  G REACTORS  G TECH. (AM.) (2-)	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN  SITE ANALYSIS VOLLMER BUNCH	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES	X	Ziema Snaid Diggs  Systems Heinema Schroei Enginer MACARRY KNIGHT SIHWEII PAWLICH REACTOR ROSS NOVAK ROSZTOC CHECK AT & I SALTZMU RUTBERG	INTERNA S SAFETY AN DER ERING Y CZY CZY AN G	L DISTRI	ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER GRIMES	AD: HIEF: MANAGER: T.: STEMS  G REACTORS  G TECH. (AM.) (2-)	747 	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN  SITE ANALYSIS VOLLMER BUNCH J. COLLINS	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILE NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES SKOVHOLT	X	Ziema Snaid Diggs  Systems Heinema Schroei Enginer MACARRY KNIGHT SIHWEII PAWLICH REACTOR ROSS NOVAK ROSZTOC CHECK AT & I SALTZMU RUTBERG	INTERNA S SAFETY AN DER ERING Y CZY EXER	L DISTRI	ASSIGNED BRANCH CI PROJECT N LIC, ASST BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER GRIMES	AD: HIEF: MANAGER: T.: STEMS  G REACTORS  G TECH. (AM.) (2-)	747	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER  ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN  SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES SKOVHOLT	X	Ziema Snaid Diggs  Systems Heinema Schroei Enginer MACARRY KNIGHT SIHWEII PAWLICH REACTOR ROSS NOVAK ROSZTOC CHECK AT & I SALTZMU RUTBERG	INTERNA S SAFETY AN DER ERING Y L KI R SAFETY CZY AN C DISTRIBUTIO	L DISTRI	ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER GRIMES	AD: HIEF: MANAGER: T.: STEMS  G REACTORS  G TECH. (AM.) (2-)	×	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER  ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN  SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER CONTROL NUMBER	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES SKOVHOLT  CLPDR:Minneapolis,Mn. TIC:	X	Ziema Snaid Diggs  SYSTEMS HEINEMSCHROEI  ENGINER MACARRY KNIGHT SIHWEII PAWLICE  REACTOR ROSS NOVAK ROSZTOC CHECK AT & I SALTZM RUTBERO EXTERNAL	INTERNA S SAFETY AN DER ERING Y  CZY  AN C DISTRIBUTIO B:	L DISTRI	BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER GRIMES	AD: HIEF: MANAGER: F.: STEMS  G REACTORS  G TECH. (AM.)  (2-)  N NAT. LAB	×	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER  ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN  SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER CONTROL NUMBER	
ASSIGNED AD: BRANCH CHIEF: PROJECT MANAGER: LIC. ASST.:  REG FILD NRC PDR I & E (2-) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS  PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES SKOVHOLT	X	Ziema Snaid Diggs  SYSTEMS HEINEMA SCHROEI  ENGINER MACARRY KNIGHT SIHWEID PAWLICH REACTOR ROSS NOVAK ROSZTOC CHECK AT & I SALTZMA RUTBERO EXTERNAL NAT LAR	INTERNA S SAFETY AN DER ERING Y  CZY  AN C DISTRIBUTIO B:	L DISTRI	ASSIGNED BRANCH CI PROJECT N LIC, ASSI BUTION PLANT SYS TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING STELLO OPERATING EISENHUT SHAO BAER BUTLER GRIMES	AD: HIEF: MANAGER: F.: STEMS  G REACTORS  G TECH. (AM.)  (2-)  N NAT. LAB	×	SITE SAFETY & ENVIRO ANALYSIS DENTON & MULLER  ENVIRO TECH. ERNST BALLARD SPANGLER  SITE TECH. GAMMILL STEPP HULMAN  SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER	