UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

F 6 1978

Docket No. 50-263

Northern States Power
Company
ATTN: Mr. Leo Wachter
Vice President
Power Production and
System Operation
414 Nicolett Mall
Minneapolis, MN 55401

Gentlemen:

The Nuclear Regulatory Commission is conducting a study to determine the feasibility of using routine licensee monitoring data to evaluate the predictive models for the environmental transport of radioiodine (specifically iodine-131) through the air-grass-cow-milk chain. We believe that such a study could be valuable in gaining a better understanding of the accuracy of the current model and assist in understanding some of the mechanics which affect the movement of radioiodine through the food chain.

In this study, we are considering cases where elevated concentrations of radioiodine have appeared in milk samples. Review of licensees' environmental monitoring reports indicates that the Monticello Nuclear Generating Plant is one of 38 plants in which milk samples collected during certain periods of time have shown elevated radioiodine concentrations. Attachment 1 shows the six-month average radioiodine concentrations in milk samples collected from different farms in the Monticello vicinity during the January-June and July-December 1975 reporting periods.

In order to accomplish the aforementioned objectives of this study, we will need detailed information relative to radioiodine concentrations in individual samples, as well as the effluent release, meteorological, and dairy (goat) farm data listed in Attachment 2. If necessary, provide raw data (e.g., meteorological charts). We will perform any necessary data reductions and return the data records to you. We will also provide you a copy of the data reductions resulting from this study.

We would appreciate your assistance in providing this information within twenty days after receipt of this letter. Please inform us within seven days of receipt of this letter the date you will be able to provide this information.

If you have any questions regarding this request, please contact T. H. Essig of this office.

Your cooperation and assistance in this endeavor is greatly appreciated.

Sincerely,

W. L. Fisher, Acting Chief
Fuel Facility and Materials
Safety Branch

Enclosures:
1. Attachment 1
2. Attachment 2

cc w/encls:
Mr. L. R. Eliason, Plant
Manager
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC
Anthony Roisman, Esq.,
Attorney

OFFICE ▶	RIII	RIII	RIII			
SURNAME ▶	Oestmann/cb	Essig	Fisher			
DATE ▶	2/3/78					

ATTACHMENT 1

MONTICELLO

DATE OF SAMPLE	I^{131} CONTENT IN MILK (pCi/l)	LOCATION
JAN - JUNE '75 (six month average levels)	0.35 ± .06	NELSON
	0.28 ± .05	OLSON
	0.42 ± .07	PETERSON
	0.42 ± .05	SHOVELAIN
JULY - DEC '75 (six month average levels)	0.34 ± .09	DWINGER
	0.31 ± .10	KIRCHENBAUER
	0.17 ± .07	KOTILINEK
	0.17 ± .10	HOLLAND
	0.20 ± .10	BECKER
	0.78 ± .08	NELSON
	0.72 ± .04	OLSON
	0.53 ± .04	PETERSON
	0.35 ± .03	SHOVELAIN

ATTACHMENT 2

For the locations listed in Attachment 1, the following information is needed. For Items 2 and 3, day-by-day/hour-by-hour detailed information is required. It would be helpful to have the data for a period of two weeks prior to the elevated (greater than 0.5 pCi/l) milk results, and for one week after the incident.

(1) Provide the dates of sampling and the values of radioiodine concentrations in individual samples at the different farm locations for those samples with concentrations equal to or greater than 0.5 pCi/l.

(2) For the gaseous I-131 effluent releases provide the following:

(a) Height(s) of release
(b) Minimal cross sectional area of surrounding buildings if release is not from a free standing stack
(c) Heat emission rate of release
(d) Duration of release
(e) Exit velocity of release at vent and stack
(f) Inside diameter of stack vent where release occurred
(g) Any documented, short-term, peaked releases during period of interest
(h) If release is given as an average value, the maximum and minimum values for the period of interest

(3) For the meteorology, provide:

(a) Wind speed (at height(s) of release, preferably)
(b) Wind direction (at height(s) of release, preferably)
(c) Atmospheric Lapse Rate (Δt)
(d) Dew Point
(e) Precipitation (hourly, if possible)

(4) For dairy (goat) farm particulars, provide:
(a) Pasturing methods
(b) Unique or outstanding characteristics of the local terrain
(c) Any other available and pertinent information