

Prairie Island Nuclear Generating Plant December 2023

INDEPENDENT SPENT FUEL STORAGE INSTALLATION

Introduction

This report provides data on radiation levels inside the Xcel Energy, Inc. Independent Spent Fuel Storage Installation (ISFSI) at the Prairie Island Nuclear Generating Plant (PINGP) for December 2023. The data contained in this report were gathered in accordance with agreements between Xcel Energy, Inc., and the Minnesota Department of Health (MDH).

At the end of December 2023, 50 casks were storing spent fuel inside the Independent Spent Fuel Storage Installation. The last cask to be moved to the Independent Spent Fuel Storage Installation was placed on June 30, 2022.

Radiation Monitoring

MDH monitored radiation levels around the ISFSI from January 1995 to July 2015 using Pressurized Ionization Chambers (PICs). The PICs were located on the north and south end of the ISFSI. The PICs were replaced with new monitors that use a dual Geiger-Mueller (GM) tube system (a high range and low range GM tube). The new monitors are located in the same locations as the PICs. The new monitors were connected on September 30, 2015 and began logging data on October 20, 2015. The monitors average radiation level data over a 15-minute period and report that average value. This report contains the daily high and low of those readings as well as the average of those readings for each monitor.

Analysis and Comments

Monitor 1 readings ranged from 0.128 mR/hr to 0.169 mR/hr. Monitor 2 readings ranged from 0.119 mR/hr to 0.169 mR/hr. There were a number of lost contacts from December 24, 2023 through December 26, 2023. Contact was reestablished and resumed consistently logging data on December 26, 2023, sometime before 10:04 pm.

Additional monitoring data on radioactivity levels in other media (air, for example) are available in the annual Minnesota Department of Health "Environmental Radiation Data Report."

For more information, go to: [Environmental Monitoring](https://www.health.state.mn.us/communities/environment/radiation/monitor/index.html)
(<https://www.health.state.mn.us/communities/environment/radiation/monitor/index.html>)

Minnesota Department of Health
Radioactive Materials Unit
health.ram@state.mn.us
www.health.state.mn.us

1/8/2024

To obtain this information in a different format, call: 651-201-4400.

Table 1: December 2023 Data Report for Monitor 1

Date	Maximum Reading (mR/hr)	Minimum Reading (mR/hr)	Average Reading (mR/hr)
12/1/23	0.153	0.132	0.139
12/2/23	0.153	0.129	0.141
12/3/23	0.168	0.133	0.140
12/4/23	0.150	0.133	0.140
12/5/23	0.152	0.131	0.140
12/6/23	0.149	0.133	0.140
12/7/23	0.151	0.130	0.141
12/8/23	0.159	0.134	0.141
12/9/23	0.153	0.131	0.140
12/10/23	0.154	0.131	0.140
12/11/23	0.150	0.133	0.141
12/12/23	0.154	0.133	0.140
12/13/23	0.152	0.132	0.139
12/14/23	0.155	0.131	0.139
12/15/23	0.149	0.133	0.140
12/16/23	0.153	0.134	0.141
12/17/23	0.149	0.129	0.140
12/18/23	0.147	0.133	0.139
12/19/23	0.156	0.132	0.140
12/20/23	0.152	0.131	0.139
12/21/23	0.154	0.133	0.140
12/22/23	0.152	0.131	0.140
12/23/23	0.152	0.132	0.140
12/24/23	0.151	0.133	0.141
12/25/23	0.156	0.130	0.142
12/26/23	0.169	0.128	0.141
12/27/23	0.148	0.132	0.140
12/28/23	0.155	0.133	0.141
12/29/23	0.153	0.131	0.139
12/30/23	0.151	0.131	0.140
12/31/23	0.152	0.134	0.140

Table 2: December 2023 Data Report for Monitor 2

Date	Maximum Reading (mR/hr)	Minimum Reading (mR/hr)	Average Reading (mR/hr)
12/1/23	0.157	0.139	0.146
12/2/23	0.155	0.137	0.145
12/3/23	0.157	0.135	0.145
12/4/23	0.157	0.134	0.145
12/5/23	0.157	0.137	0.145
12/6/23	0.154	0.135	0.145
12/7/23	0.162	0.137	0.146
12/8/23	0.157	0.136	0.146
12/9/23	0.159	0.139	0.146
12/10/23	0.157	0.138	0.145
12/11/23	0.158	0.136	0.145
12/12/23	0.163	0.139	0.146
12/13/23	0.156	0.136	0.145
12/14/23	0.158	0.136	0.145
12/15/23	0.169	0.135	0.145
12/16/23	0.161	0.138	0.145
12/17/23	0.158	0.135	0.145
12/18/23	0.161	0.135	0.146
12/19/23	0.163	0.134	0.145
12/20/23	0.155	0.137	0.144
12/21/23	0.159	0.136	0.145
12/22/23	0.154	0.134	0.145
12/23/23	0.156	0.138	0.145
12/24/23	0.160	0.123	0.144
12/25/23	0.163	0.119	0.145
12/26/23	0.160	0.138	0.146
12/27/23	0.163	0.137	0.145
12/28/23	0.164	0.133	0.146
12/29/23	0.154	0.136	0.145
12/30/23	0.164	0.134	0.146
12/31/23	0.155	0.138	0.146