

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

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 2018. 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 2018, 44 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 May 25, 2018.

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 0.148 mR/hr to 0.178 mR/hr. Monitor 2 readings ranged from 0.151 mR/hr to 0.190 mR/hr. Due to computer connection issues both monitors lost contact on December 11, 2018 sometime after 10:21 am. Contact was reestablished and resumed logging data on December 12, 2018 sometime before 7:26 am.

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](http://www.health.state.mn.us/divs/eh/radiation/monitor/index.html)
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Table 1: December 2018 Data Report for Monitor 1

Date	Maximum Reading (mR/hr)	Minimum Reading (mR/hr)	Average Reading (mR/hr)
12/1/18	0.172	0.152	0.160
12/2/18	0.174	0.154	0.160
12/3/18	0.178	0.152	0.159
12/4/18	0.169	0.152	0.159
12/5/18	0.167	0.150	0.159
12/6/18	0.171	0.149	0.158
12/7/18	0.169	0.150	0.158
12/8/18	0.169	0.152	0.159
12/9/18	0.172	0.152	0.158
12/10/18	0.172	0.152	0.159
12/11/18	0.174	0.149	0.159
12/12/18	0.172	0.153	0.160
12/13/18	0.173	0.149	0.159
12/14/18	0.167	0.153	0.159
12/15/18	0.170	0.152	0.159
12/16/18	0.168	0.149	0.159
12/17/18	0.166	0.152	0.158
12/18/18	0.168	0.152	0.160
12/19/18	0.172	0.152	0.161
12/20/18	0.172	0.150	0.160
12/21/18	0.172	0.150	0.158
12/22/18	0.171	0.151	0.159
12/23/18	0.173	0.151	0.158
12/24/18	0.167	0.148	0.157
12/25/18	0.165	0.149	0.157
12/26/18	0.174	0.150	0.158
12/27/18	0.170	0.153	0.162
12/28/18	0.172	0.150	0.158
12/29/18	0.167	0.149	0.156
12/30/18	0.167	0.152	0.158
12/31/18	0.172	0.150	0.158

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Table 2: December 2018 Data Report for Monitor 2

Date	Maximum Reading (mR/hr)	Minimum Reading (mR/hr)	Average Reading (mR/hr)
12/1/18	0.175	0.159	0.166
12/2/18	0.176	0.156	0.167
12/3/18	0.190	0.156	0.166
12/4/18	0.187	0.156	0.165
12/5/18	0.178	0.155	0.165
12/6/18	0.173	0.157	0.165
12/7/18	0.184	0.157	0.165
12/8/18	0.176	0.155	0.165
12/9/18	0.178	0.156	0.166
12/10/18	0.175	0.155	0.164
12/11/18	0.173	0.159	0.165
12/12/18	0.177	0.159	0.166
12/13/18	0.181	0.155	0.165
12/14/18	0.180	0.155	0.167
12/15/18	0.177	0.157	0.166
12/16/18	0.178	0.156	0.166
12/17/18	0.184	0.155	0.166
12/18/18	0.179	0.156	0.166
12/19/18	0.180	0.159	0.166
12/20/18	0.180	0.158	0.167
12/21/18	0.177	0.156	0.165
12/22/18	0.178	0.156	0.165
12/23/18	0.173	0.155	0.166
12/24/18	0.174	0.154	0.164
12/25/18	0.177	0.154	0.164
12/26/18	0.178	0.151	0.163
12/27/18	0.177	0.159	0.167
12/28/18	0.179	0.155	0.165
12/29/18	0.175	0.154	0.162
12/30/18	0.174	0.156	0.165
12/31/18	0.177	0.154	0.163