

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 October 2016. 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 October 2016, 40 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 August 17, 2015.

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 0.164 mR/hr to 0.197 mR/hr. Monitor 2 readings ranged from 0.169 mR/hr to 0.201 mR/hr.

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:

<http://www.health.state.mn.us/divs/eh/radiation/monitor/index.html> or contact Brandon Juran at brandon.juran@state.mn.us or 651-201-4526.

Table 1: October 2016 Data Report for Monitor 1 – North

Date	Maximum Reading (mR/hr)	Minimum Reading (mR/hr)	Average Reading (mR/hr)
10/1/16	0.187	0.171	0.178
10/2/16	0.189	0.167	0.177
10/3/16	0.191	0.166	0.178
10/4/16	0.190	0.165	0.178
10/5/16	0.189	0.170	0.178
10/6/16	0.194	0.169	0.177
10/7/16	0.187	0.169	0.177
10/8/16	0.186	0.166	0.175
10/9/16	0.197	0.169	0.176
10/10/16	0.186	0.166	0.177
10/11/16	0.193	0.168	0.178
10/12/16	0.184	0.168	0.177
10/13/16	0.187	0.169	0.176
10/14/16	0.197	0.168	0.177
10/15/16	0.187	0.169	0.178
10/16/16	0.186	0.169	0.177
10/17/16	0.191	0.171	0.180
10/18/16	0.189	0.168	0.178
10/19/16	0.184	0.167	0.177
10/20/16	0.189	0.166	0.176
10/21/16	0.184	0.167	0.175
10/22/16	0.185	0.168	0.176
10/23/16	0.194	0.169	0.177
10/24/16	0.189	0.165	0.175
10/25/16	0.187	0.164	0.176
10/26/16	0.190	0.169	0.178
10/27/16	0.187	0.165	0.176
10/28/16	0.191	0.169	0.177
10/29/16	0.191	0.166	0.178
10/30/16	0.184	0.169	0.176
10/31/16	0.194	0.166	0.177

Table 2: October 2016 Data Report for Monitor 2 – South

Date	Maximum Reading (mR/hr)	Minimum Reading (mR/hr)	Average Reading (mR/hr)
10/1/16	0.200	0.176	0.184
10/2/16	0.193	0.175	0.184
10/3/16	0.194	0.174	0.184
10/4/16	0.193	0.171	0.184
10/5/16	0.195	0.176	0.184
10/6/16	0.194	0.175	0.183
10/7/16	0.199	0.175	0.184
10/8/16	0.198	0.171	0.182
10/9/16	0.194	0.171	0.183
10/10/16	0.193	0.172	0.183
10/11/16	0.195	0.176	0.184
10/12/16	0.195	0.174	0.183
10/13/16	0.192	0.173	0.183
10/14/16	0.190	0.175	0.183
10/15/16	0.195	0.176	0.184
10/16/16	0.195	0.173	0.184
10/17/16	0.201	0.175	0.186
10/18/16	0.195	0.176	0.184
10/19/16	0.194	0.173	0.183
10/20/16	0.196	0.173	0.183
10/21/16	0.195	0.171	0.183
10/22/16	0.196	0.174	0.183
10/23/16	0.195	0.169	0.183
10/24/16	0.193	0.172	0.182
10/25/16	0.199	0.174	0.183
10/26/16	0.193	0.175	0.185
10/27/16	0.193	0.172	0.182
10/28/16	0.191	0.174	0.184
10/29/16	0.196	0.176	0.184
10/30/16	0.189	0.172	0.181
10/31/16	0.198	0.173	0.183