

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**BNE Background Location
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

BNE Office (COAI01)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/14/09	< 0.001
01/14/09 - 01/26/09	< 0.010
01/26/09 - 02/09/09	< 0.004
02/09/09 - 02/23/09	< 0.008
02/23/09 - 03/09/09	< 0.006
03/09/09 - 03/23/09	< 0.006
03/23/09 - 04/08/09	< 0.005
04/08/09 - 04/22/09	< 0.004
04/22/09 - 05/07/09	< 0.003
05/07/09 - 05/18/09	< 0.007
05/18/09 - 06/01/09	< 0.003
06/01/09 - 06/15/09	< 0.004
06/15/09 - 07/01/09	< 0.005
07/01/09 - 07/15/09	< 0.004
07/15/09 - 07/29/09	< 0.006
07/29/09 - 08/10/09	< 0.007
08/10/09 - 08/25/09	< 0.013
08/25/09 - 09/17/09	< 0.004
09/17/09 - 09/24/09	< 0.010
09/24/09 - 10/08/09	< 0.014
10/08/09 - 10/22/09	< 0.014
10/22/09 - 11/04/09	< 0.012
11/04/09 - 11/18/09	< 0.007
11/18/09 - 11/30/09	< 0.015
11/30/09 - 12/14/09	< 0.014
12/14/09 - 12/28/09	< 0.021

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**BNE Background Location
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Brendan T. Byrne State Forest (COAI02)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/13/09	< 0.003
01/13/09 - 01/27/09	< 0.008
01/27/09 - 02/10/09	< 0.005
02/10/09 - 02/24/09	< 0.005
02/24/09 - 03/10/09	< 0.008
03/10/09 - 03/24/09	< 0.006
03/24/09 - 04/08/09	< 0.006
04/08/09 - 04/20/09	< 0.006
04/20/09 - 05/04/09	< 0.011
05/04/09 - 05/18/09	< 0.008
05/18/09 - 06/02/09	< 0.003
06/02/09 - 06/16/09	< 0.008
06/16/09 - 07/01/09	< 0.007
07/01/09 - 07/14/09	< 0.005
07/14/09 - 07/28/09	< 0.008
07/28/09 - 08/11/09	< 0.006
08/11/09 - 08/24/09	< 0.016
08/24/09 - 09/07/09	< 0.014
09/07/09 - 09/22/09	< 0.006
09/22/09 - 10/06/09	< 0.008
10/06/09 - 10/23/09	< 0.008
10/23/09 - 11/02/09	< 0.008
11/02/09 - 11/17/09	< 0.009
11/17/09 - 11/30/09	< 0.009
11/30/09 - 12/16/09	< 0.009
12/16/09 - 12/29/09	< 0.026

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Waretown Municipal Building (OCAI01)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/13/09	< 0.003
01/13/09 - 01/26/09	< 0.012
01/26/09 - 02/10/09	< 0.004
02/10/09 - 02/24/09	< 0.007
02/24/09 - 03/10/09	< 0.005
03/10/09 - 03/24/09	< 0.006
03/24/09 - 04/06/09	< 0.014
04/06/09 - 04/20/09	< 0.008
04/20/09 - 05/04/09	< 0.019
05/04/09 - 05/18/09	< 0.014
05/18/09 - 06/02/09	< 0.006
06/02/09 - 06/16/09	< 0.010
06/16/09 - 07/01/09	< 0.008
07/01/09 - 07/14/09	< 0.009
07/14/09 - 07/28/09	< 0.013
07/28/09 - 08/11/09	< 0.014
08/11/09 - 08/24/09	< 0.019
08/24/09 - 09/07/09	< 0.019
09/07/09 - 09/22/09	< 0.008
09/22/09 - 10/06/09	< 0.013
10/06/09 - 10/23/09	< 0.016
10/23/09 - 11/02/09	< 0.014
11/02/09 - 11/17/09	< 0.008
11/17/09 - 11/30/09	< 0.013
11/30/09 - 12/16/09	< 0.009
12/16/09 - 12/29/09	< 0.023

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Sands Point Harbor (OCAI02)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/13/09	< 0.005
01/13/09 - 01/26/09	< 0.014
01/26/09 - 02/10/09	< 0.006
02/10/09 - 02/24/09	< 0.010
02/24/09 - 03/10/09	< 0.011
03/10/09 - 03/24/09	< 0.012
03/24/09 - 04/06/09	< 0.011
04/06/09 - 04/20/09	< 0.009
04/20/09 - 05/04/09	< 0.020
05/04/09 - 05/18/09	< 0.015
05/18/09 - 06/02/09	< 0.005
06/02/09 - 06/16/09	< 0.012
06/16/09 - 07/01/09	< 0.009
07/01/09 - 07/14/09	< 0.007
07/14/09 - 07/28/09	< 0.009
07/28/09 - 08/11/09	< 0.016
08/11/09 - 08/24/09	< 0.020
08/24/09 - 09/07/09	< 0.022
09/07/09 - 09/22/09	< 0.008
09/22/09 - 10/06/09	< 0.014
10/06/09 - 10/23/09	< 0.012
10/23/09 - 11/02/09	< 0.011
11/02/09 - 11/17/09	< 0.006
11/17/09 - 11/30/09	< 0.012
11/30/09 - 12/16/09	< 0.006
12/16/09 - 12/29/09	< 0.018

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
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2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Forked River Marina (OCAI03)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/13/09	< 0.003
01/13/09 - 01/26/09	< 0.012
01/26/09 - 02/10/09	< 0.004
02/10/09 - 02/24/09	< 0.007
02/24/09 - 03/10/09	< 0.015
03/10/09 - 03/24/09	< 0.008
03/24/09 - 04/06/09	< 0.013
04/06/09 - 04/20/09	< 0.005
04/20/09 - 05/04/09	< 0.018
05/04/09 - 05/18/09	< 0.018
05/18/09 - 06/02/09	< 0.005
06/02/09 - 06/16/09	< 0.011
06/16/09 - 07/01/09	< 0.008
07/01/09 - 07/14/09	< 0.008
07/14/09 - 07/28/09	< 0.012
07/28/09 - 08/11/09	< 0.015
08/11/09 - 08/24/09	< 0.023
08/24/09 - 09/07/09	< 0.019
09/07/09 - 09/22/09	< 0.008
09/22/09 - 10/06/09	< 0.011
10/06/09 - 10/23/09	< 0.009
10/23/09 - 11/02/09	< 0.015
11/02/09 - 11/17/09	< 0.010
11/17/09 - 11/30/09	< 0.011
11/30/09 - 12/16/09	< 0.009
12/16/09 - 12/29/09	< 0.019

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
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**Oyster Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Lacey Township Recreation Building (OCAI04)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/13/09	< 0.005
01/13/09 - 01/26/09	< 0.027
01/26/09 - 02/10/09	< 0.008
02/10/09 - 02/24/09	< 0.009
02/24/09 - 03/10/09	< 0.019
03/10/09 - 03/24/09	< 0.010
03/24/09 - 04/06/09	< 0.010
04/06/09 - 04/20/09	< 0.010
04/20/09 - 05/04/09	< 0.015
05/04/09 - 05/18/09	< 0.019
05/18/09 - 06/02/09	< 0.005
06/02/09 - 06/16/09	< 0.008
06/16/09 - 07/01/09	< 0.012
07/01/09 - 07/14/09	< 0.007
07/14/09 - 07/28/09	< 0.013
07/28/09 - 08/11/09	< 0.018
08/11/09 - 08/24/09	< 0.020
08/24/09 - 09/07/09	< 0.024
09/07/09 - 09/22/09	< 0.007
09/22/09 - 10/06/09	< 0.014
10/06/09 - 10/23/09	< 0.016
10/23/09 - 11/02/09	< 0.013
11/02/09 - 11/17/09	< 0.009
11/17/09 - 11/30/09	< 0.013
11/30/09 - 12/16/09	< 0.009
12/16/09 - 12/29/09	< 0.019

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
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**Oyster Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

JCP&L Substation (OCAI05)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/13/09	< 0.003
01/13/09 - 01/26/09	< 0.014
01/26/09 - 02/10/09	< 0.004
02/10/09 - 02/24/09	< 0.005
02/24/09 - 03/10/09	< 0.011
03/10/09 - 03/24/09	< 0.010
03/24/09 - 04/06/09	< 0.010
04/06/09 - 04/20/09	< 0.010
04/20/09 - 05/04/09	< 0.027
05/04/09 - 05/18/09	< 0.008
05/18/09 - 06/02/09	< 0.007
06/02/09 - 06/16/09	< 0.011
06/16/09 - 07/01/09	< 0.012
07/01/09 - 07/14/09	< 0.008
07/14/09 - 07/28/09	< 0.011
07/28/09 - 08/11/09	< 0.019
08/11/09 - 08/24/09	< 0.022
08/24/09 - 09/07/09	< 0.020
09/07/09 - 09/22/09	< 0.008
09/22/09 - 10/06/09	< 0.014
10/06/09 - 10/23/09	< 0.012
10/23/09 - 11/02/09	< 0.011
11/02/09 - 11/17/09	< 0.009
11/17/09 - 11/30/09	< 0.011
11/30/09 - 12/16/09	< 0.010
12/16/09 - 12/29/09	< 0.027

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
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**Oyster Creek
Concentrations of Iodine-131 in Weekly* Air Iodine Samples**

Finninger Farm, OC Dredge Site (OCAI06)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/06/09	< 0.021
01/06/09 - 01/14/09	< 0.008
01/14/09 - 01/21/09	< 0.044
01/21/09 - 01/27/09	< 0.056
01/27/09 - 02/04/09	< 0.023
02/04/09 - 02/11/09	< 0.030
02/11/09 - 02/18/09	< 0.035
02/18/09 - 02/25/09	< 0.019
02/25/09 - 03/04/09	< 0.023
03/04/09 - 03/11/09	< 0.029
03/11/09 - 03/18/09	< 0.040
03/18/09 - 03/25/09	< 0.024
03/25/09 - 04/01/09	< 0.042
04/01/09 - 04/08/09	< 0.022
04/08/09 - 04/15/09	< 0.030
04/15/09 - 04/22/09	< 0.019
04/22/09 - 04/29/09	< 0.030
04/29/09 - 05/06/09	< 0.044
05/06/09 - 05/13/09	< 0.064
05/13/09 - 05/20/09	< 0.050
05/20/09 - 05/27/09	< 0.058
05/27/09 - 06/03/09	< 0.022
06/03/09 - 06/10/09	< 0.024
06/10/09 - 06/17/09	< 0.017
06/17/09 - 06/24/09	< 0.035
06/24/09 - 07/01/09	< 0.031

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

* Air Iodine samples are collected by the licensee on a weekly basis

**New Jersey Department of Environmental Protection
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2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Iodine-131 in Weekly* Air Iodine Samples**

Finninger Farm, OC Dredge Site (OCAI06)
(continued)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
07/01/09 - 07/08/09	< 0.033
07/08/09 - 07/15/09	< 0.027
07/15/09 - 07/22/09	< 0.021
07/22/09 - 07/28/09	< 0.039
07/28/09 - 08/05/09	< 0.027
08/05/09 - 08/12/09	< 0.029
08/12/09 - 08/19/09	< 0.033
08/19/09 - 08/26/09	< 0.022
08/26/09 - 09/02/09	< 0.024
09/02/09 - 09/09/09	< 0.026
09/09/09 - 09/16/09	< 0.036
09/16/09 - 09/23/09	< 0.030
09/23/09 - 09/30/09	< 0.039
09/30/09 - 10/07/09	< 0.025
10/07/09 - 10/14/09	< 0.028
10/14/09 - 10/21/09	< 0.034
10/21/09 - 10/28/09	< 0.037
10/28/09 - 11/04/09	< 0.023
11/04/09 - 11/11/09	< 0.024
11/11/09 - 11/18/09	< 0.034
11/18/09 - 11/24/09	< 0.026
11/24/09 - 12/02/09	< 0.066
12/02/09 - 12/09/09	< 0.018
12/09/09 - 12/16/09	< 0.032
12/16/09 - 12/22/09	< 0.019
12/22/09 - 12/29/09	< 0.016
12/29/09 - 01/06/10	< 0.016

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

* Air Iodine samples are collected by the licensee on a weekly basis

New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program

Oyster Creek
Concentrations of Iodine-131 in Weekly Air Iodine Samples*

Access Road to Finninger Farm Property (ENE Sector)
(OCAI07)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
07/14/09 - 07/28/09	< 0.013
07/28/09 - 08/11/09	< 0.020
08/11/09 - 08/24/09	< 0.030
08/24/09 - 09/07/09	< 0.023
09/07/09 - 09/22/09	< 0.008
09/22/09 - 10/06/09	< 0.014
10/06/09 - 10/23/09	< 0.013
10/23/09 - 11/02/09	< 0.016
11/02/09 - 11/17/09	< 0.011
11/17/09 - 11/30/09	< 0.014
11/30/09 - 12/16/09	< 0.011
12/16/09 - 12/29/09	< 0.021

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

* New air sampling site- the collection of air particulate and charcoal at this site commenced the week of 07/14/09

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Fort Elfsborg Road (AIAI01)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/14/09	< 0.004
01/14/09 - 01/26/09	< 0.014
01/26/09 - 02/09/09	< 0.006
02/09/09 - 02/23/09	< 0.009
02/23/09 - 03/09/09	< 0.006
03/09/09 - 03/23/09	< 0.008
03/23/09 - 04/07/09	< 0.011
04/07/09 - 04/21/09	< 0.008
04/21/09 - 05/06/09	< 0.007
05/06/09 - 05/18/09	< 0.012
05/18/09 - 06/01/09	< 0.007
06/01/09 - 06/15/09	< 0.007
06/15/09 - 06/29/09	< 0.014
06/29/09 - 07/13/09	< 0.008
07/13/09 - 07/27/09	< 0.013
07/27/09 - 08/10/09	< 0.011
08/10/09 - 08/26/09	< 0.014
08/26/09 - 09/15/09	< 0.008
09/15/09 - 09/21/09	< 0.014
09/21/09 - 10/05/09	< 0.008
10/05/09 - 10/22/09	< 0.016
10/22/09 - 11/02/09	< 0.010
11/02/09 - 11/16/09	< 0.008
11/16/09 - 11/30/09	< 0.011
11/30/09 - 12/14/09	< 0.012
12/14/09 - 12/28/09	< 0.021

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Plant Access Road (AIAI02)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/14/09	< 0.004
01/14/09 - 01/26/09	< 0.013
01/26/09 - 02/09/09	< 0.003
02/09/09 - 02/23/09	< 0.009
02/23/09 - 03/09/09	< 0.006
03/09/09 - 03/23/09	< 0.009
03/23/09 - 04/07/09	< 0.010
04/07/09 - 04/21/09	< 0.007
04/21/09 - 05/06/09	< 0.006
05/06/09 - 05/18/09	< 0.010
05/18/09 - 06/01/09	< 0.005
06/01/09 - 06/15/09	< 0.008
06/15/09 - 06/29/09	< 0.011
06/29/09 - 07/13/09	< 0.007
07/13/09 - 07/27/09	< 0.011
07/27/09 - 08/10/09	< 0.010
08/10/09 - 08/26/09	< 0.015
08/26/09 - 09/15/09	< 0.009
09/15/09 - 09/21/09	< 0.013
09/21/09 - 10/05/09	< 0.010
10/05/09 - 10/22/09	< 0.019
10/22/09 - 11/02/09	< 0.009
11/02/09 - 11/16/09	< 0.006
11/16/09 - 11/30/09	< 0.011
11/30/09 - 12/14/09	< 0.010
12/14/09 - 12/28/09	< 0.018

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
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**Salem/Hope Creek
Concentrations of Iodine-131 in Bi-Weekly Air Iodine Samples**

Lower Alloways Creek School (AIAI03)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
12/30/08 - 01/14/09	< 0.004
01/14/09 - 01/26/09	< 0.015
01/26/09 - 02/09/09	< 0.007
02/09/09 - 02/23/09	< 0.003
02/23/09 - 03/09/09	< 0.018
03/09/09 - 03/23/09	< 0.011
03/23/09 - 04/07/09	< 0.010
04/07/09 - 04/21/09	< 0.007
04/21/09 - 05/06/09	< 0.006
05/06/09 - 05/18/09	< 0.011
05/18/09 - 06/01/09	< 0.005
06/01/09 - 06/15/09	< 0.010
06/15/09 - 06/29/09	< 0.013
06/29/09 - 07/13/09	< 0.007
07/13/09 - 07/27/09	< 0.010
07/27/09 - 08/10/09	< 0.014
08/10/09 - 08/26/09	< 0.014
08/26/09 - 09/15/09	< 0.009
09/15/09 - 09/21/09	< 0.010
09/21/09 - 10/05/09	< 0.011
10/05/09 - 10/22/09	< 0.014
10/22/09 - 11/02/09	< 0.010
11/02/09 - 11/16/09	< 0.008
11/16/09 - 11/30/09	< 0.011
11/30/09 - 12/14/09	< 0.010
12/14/09 - 12/28/09	< 0.016

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
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**BNE Background Location
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

BNE Office (COAP01)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>		
12/30/08 - 01/14/09	0.018	±	0.0013
01/14/09 - 01/26/09	0.022	±	0.0017
01/26/09 - 02/09/09	0.017	±	0.0013
02/09/09 - 02/23/09	0.013	±	0.0012
02/23/09 - 03/09/09	0.020	±	0.0015
03/09/09 - 03/23/09	0.019	±	0.0013
03/23/09 - 04/08/09	0.009	±	0.0009
04/08/09 - 04/22/09	0.015	±	0.0012
04/22/09 - 05/07/09	0.012	±	0.0010
05/07/09 - 05/18/09	0.012	±	0.0012
05/18/09 - 06/01/09	0.011	±	0.0010
06/01/09 - 06/15/09	0.003	±	0.0000
06/15/09 - 07/01/09	0.013	±	0.0010
07/01/09 - 07/15/09	0.013	±	0.0010
07/15/09 - 07/29/09	0.019	±	0.0010
07/29/09 - 08/10/09	0.019	±	0.0010
08/10/09 - 08/25/09	0.019	±	0.0010
08/25/09 - 09/17/09	0.017	±	0.0010
09/17/09 - 09/24/09	0.020	±	0.0020
09/24/09 - 10/08/09	0.017	±	0.0010
10/08/09 - 10/22/09	0.021	±	0.0010
10/22/09 - 11/04/09	0.015	±	0.0010
11/04/09 - 11/18/09	0.024	±	0.0010
11/18/09 - 11/30/09	0.020	±	0.0010
11/30/09 - 12/14/09	0.011	±	0.0010
12/14/09 - 12/28/09	0.022	±	0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
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**BNE Background Location
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Brendan T. Byrne State Forest (COAP02)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/13/09	0.018 ± 0.0014
01/13/09 - 01/27/09	0.022 ± 0.0015
01/27/09 - 02/10/09	0.030 ± 0.0021
02/10/09 - 02/24/09	0.011 ± 0.0009
02/24/09 - 03/10/09	0.017 ± 0.0013
03/10/09 - 03/24/09	0.019 ± 0.0014
03/24/09 - 04/08/09	0.009 ± 0.0010
04/08/09 - 04/20/09	0.016 ± 0.0014
04/20/09 - 05/04/09	0.013 ± 0.0011
05/04/09 - 05/18/09	0.010 ± 0.0010
05/18/09 - 06/02/09	0.011 ± 0.0010
06/02/09 - 06/16/09	0.010 ± 0.0010
06/16/09 - 07/01/09	0.011 ± 0.0010
07/01/09 - 07/14/09	0.012 ± 0.0010
07/14/09 - 07/28/09	0.017 ± 0.0010
07/28/09 - 08/11/09	0.020 ± 0.0010
08/11/09 - 08/24/09	0.018 ± 0.0010
08/24/09 - 09/07/09	0.018 ± 0.0010
09/07/09 - 09/22/09	0.018 ± 0.0010
09/22/09 - 10/06/09	0.014 ± 0.0010
10/06/09 - 10/23/09	0.016 ± 0.0010
10/23/09 - 11/02/09	0.014 ± 0.0010
11/02/09 - 11/17/09	0.019 ± 0.0010
11/17/09 - 11/30/09	0.021 ± 0.0020
11/30/09 - 12/16/09	0.010 ± 0.0010
12/16/09 - 12/29/09	0.018 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Waretown Municipal Building (OCAP01)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/13/09	0.011 ± 0.0012
01/13/09 - 01/26/09	0.021 ± 0.0017
01/26/09 - 02/10/09	0.021 ± 0.0016
02/10/09 - 02/24/09	0.013 ± 0.0013
02/24/09 - 03/10/09	0.018 ± 0.0015
03/10/09 - 03/24/09	0.015 ± 0.0014
03/24/09 - 04/06/09	0.011 ± 0.0016
04/06/09 - 04/20/09	0.015 ± 0.0016
04/20/09 - 05/04/09	0.016 ± 0.0016
05/04/09 - 05/18/09	0.011 ± 0.0014
05/18/09 - 06/02/09	0.011 ± 0.0010
06/02/09 - 06/16/09	0.011 ± 0.0010
06/16/09 - 07/01/09	0.011 ± 0.0010
07/01/09 - 07/14/09	0.014 ± 0.0010
07/14/09 - 07/28/09	0.020 ± 0.0010
07/28/09 - 08/11/09	0.020 ± 0.0010
08/11/09 - 08/24/09	0.023 ± 0.0010
08/24/09 - 09/07/09	0.019 ± 0.0010
09/07/09 - 09/22/09	0.016 ± 0.0010
09/22/09 - 10/06/09	0.014 ± 0.0010
10/06/09 - 10/23/09	0.016 ± 0.0010
10/23/09 - 11/02/09	0.016 ± 0.0010
11/02/09 - 11/17/09	0.018 ± 0.0010
11/17/09 - 11/30/09	0.016 ± 0.0010
11/30/09 - 12/16/09	0.021 ± 0.0010
12/16/09 - 12/29/09	0.020 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Sands Point Harbor (OCAP02)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/13/09	0.026 ± 0.0022
01/13/09 - 01/26/09	0.022 ± 0.0022
01/26/09 - 02/10/09	0.023 ± 0.0020
02/10/09 - 02/24/09	0.014 ± 0.0017
02/24/09 - 03/10/09	0.020 ± 0.0020
03/10/09 - 03/24/09	0.030 ± 0.0024
03/24/09 - 04/06/09	0.011 ± 0.0015
04/06/09 - 04/20/09	0.017 ± 0.0018
04/20/09 - 05/04/09	0.015 ± 0.0016
05/04/09 - 05/18/09	0.011 ± 0.0014
05/18/09 - 06/02/09	0.012 ± 0.0010
06/02/09 - 06/16/09	0.011 ± 0.0010
06/16/09 - 07/01/09	0.010 ± 0.0010
07/01/09 - 07/14/09	0.015 ± 0.0010
07/14/09 - 07/28/09	0.017 ± 0.0010
07/28/09 - 08/11/09	0.019 ± 0.0010
08/11/09 - 08/24/09	0.022 ± 0.0010
08/24/09 - 09/07/09	0.015 ± 0.0010
09/07/09 - 09/22/09	0.017 ± 0.0010
09/22/09 - 10/06/09	0.014 ± 0.0010
10/06/09 - 10/23/09	0.018 ± 0.0010
10/23/09 - 11/02/09	0.016 ± 0.0010
11/02/09 - 11/17/09	0.017 ± 0.0010
11/17/09 - 11/30/09	0.016 ± 0.0010
11/30/09 - 12/16/09	0.021 ± 0.0010
12/16/09 - 12/29/09	0.019 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Forked River Marina (OCAP03)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/13/09	0.017 ± 0.0015
01/13/09 - 01/26/09	0.022 ± 0.0018
01/26/09 - 02/10/09	0.022 ± 0.0016
02/10/09 - 02/24/09	0.015 ± 0.0014
02/24/09 - 03/10/09	0.019 ± 0.0016
03/10/09 - 03/24/09	0.021 ± 0.0016
03/24/09 - 04/06/09	0.011 ± 0.0015
04/06/09 - 04/20/09	0.017 ± 0.0017
04/20/09 - 05/04/09	0.014 ± 0.0015
05/04/09 - 05/18/09	0.010 ± 0.0013
05/18/09 - 06/02/09	0.012 ± 0.0010
06/02/09 - 06/16/09	0.010 ± 0.0010
06/16/09 - 07/01/09	0.010 ± 0.0010
07/01/09 - 07/14/09	0.013 ± 0.0010
07/14/09 - 07/28/09	0.017 ± 0.0010
07/28/09 - 08/11/09	0.020 ± 0.0010
08/11/09 - 08/24/09	0.021 ± 0.0010
08/24/09 - 09/07/09	0.019 ± 0.0010
09/07/09 - 09/22/09	0.018 ± 0.0010
09/22/09 - 10/06/09	0.015 ± 0.0010
10/06/09 - 10/23/09	0.016 ± 0.0010
10/23/09 - 11/02/09	0.017 ± 0.0010
11/02/09 - 11/17/09	0.019 ± 0.0010
11/17/09 - 11/30/09	0.016 ± 0.0010
11/30/09 - 12/16/09	0.024 ± 0.0010
12/16/09 - 12/29/09	0.020 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Lacey Twp. Recreation Building (OCAP04)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/13/09	0.019 ± 0.0018
01/13/09 - 01/26/09	0.022 ± 0.0021
01/26/09 - 02/10/09	0.021 ± 0.0018
02/10/09 - 02/24/09	0.014 ± 0.0015
02/24/09 - 03/10/09	0.018 ± 0.0017
03/10/09 - 03/24/09	0.024 ± 0.0020
03/24/09 - 04/06/09	0.010 ± 0.0013
04/06/09 - 04/20/09	0.016 ± 0.0016
04/20/09 - 05/04/09	0.016 ± 0.0016
05/04/09 - 05/18/09	0.010 ± 0.0013
05/18/09 - 06/02/09	0.011 ± 0.0010
06/02/09 - 06/16/09	0.010 ± 0.0010
06/16/09 - 07/01/09	0.011 ± 0.0010
07/01/09 - 07/14/09	0.013 ± 0.0010
07/14/09 - 07/28/09	0.018 ± 0.0010
07/28/09 - 08/11/09	0.019 ± 0.0010
08/11/09 - 08/24/09	0.021 ± 0.0010
08/24/09 - 09/07/09	0.019 ± 0.0010
09/07/09 - 09/22/09	0.019 ± 0.0010
09/22/09 - 10/06/09	0.019 ± 0.0010
10/06/09 - 10/23/09	0.016 ± 0.0010
10/23/09 - 11/02/09	0.014 ± 0.0010
11/02/09 - 11/17/09	0.020 ± 0.0010
11/17/09 - 11/30/09	0.017 ± 0.0010
11/30/09 - 12/16/09	0.019 ± 0.0010
12/16/09 - 12/29/09	< 0.0005

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

* Air particulate filter beta activity was negligible

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

JCP&L Substation (OCAP05)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>		
12/30/08 - 01/13/09	0.017	±	0.0012
01/13/09 - 01/26/09	0.019	±	0.0014
01/26/09 - 02/10/09	0.019	±	0.0013
02/10/09 - 02/24/09	0.013	±	0.0011
02/24/09 - 03/10/09	0.013	±	0.0011
03/10/09 - 03/24/09	0.019	±	0.0014
03/24/09 - 04/06/09	0.012	±	0.0014
04/06/09 - 04/20/09	0.015	±	0.0016
04/20/09 - 05/04/09	0.015	±	0.0015
05/04/09 - 05/18/09	0.011	±	0.0013
05/18/09 - 06/01/09	0.011	±	0.0010
06/01/09 - 06/16/09	0.010	±	0.0010
06/16/09 - 07/01/09	0.010	±	0.0010
07/01/09 - 07/14/09	0.014	±	0.0010
07/14/09 - 07/28/09	0.021	±	0.0010
07/28/09 - 08/11/09	0.019	±	0.0010
08/11/09 - 08/24/09	0.021	±	0.0010
08/24/09 - 09/07/09	0.020	±	0.0010
09/07/09 - 09/22/09	0.016	±	0.0010
09/22/09 - 10/06/09	0.014	±	0.0010
10/06/09 - 10/23/09	0.018	±	0.0010
10/23/09 - 11/02/09	0.016	±	0.0010
11/02/09 - 11/17/09	0.018	±	0.0010
11/17/09 - 11/30/09	0.018	±	0.0010
11/30/09 - 12/16/09	0.023	±	0.0010
12/16/09 - 12/29/09	0.018	±	0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Weekly* Air Particulate Samples**

Finninger Farm, OC Dredge Site (OCAP06)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>		
12/30/08 - 01/06/09	0.027	±	0.0043
01/06/09 - 01/14/09	0.023	±	0.0037
01/14/09 - 01/21/09	0.026	±	0.0045
01/21/09 - 01/27/09	No Data		No Data
01/27/09 - 02/04/09	0.030	±	0.0044
02/04/09 - 02/11/09	0.028	±	0.0047
02/11/09 - 02/18/09	0.016	±	0.0037
02/18/09 - 02/25/09	0.021	±	0.0041
02/25/09 - 03/04/09	0.026	±	0.0044
03/04/09 - 03/11/09	0.029	±	0.0048
03/11/09 - 03/18/09	0.034	±	0.0052
03/18/09 - 03/25/09	0.024	±	0.0046
03/25/09 - 04/01/09	0.017	±	0.0041
04/01/09 - 04/08/09	0.020	±	0.0043
04/08/09 - 04/15/09	0.025	±	0.0047
04/15/09 - 04/22/09	0.019	±	0.0042
04/22/09 - 04/29/09	0.029	±	0.0049
04/29/09 - 05/06/09	0.017	±	0.0041
05/06/09 - 05/13/09	0.017	±	0.0040
05/13/09 - 05/20/09	0.016	±	0.0039
05/20/09 - 05/27/09	0.017	±	0.0040
05/27/09 - 06/03/09	0.019	±	0.0020
06/03/09 - 06/10/09	0.016	±	0.0020
06/10/09 - 06/17/09	0.016	±	0.0020
06/17/09 - 06/24/09	0.016	±	0.0020
06/24/09 - 07/01/09	0.022	±	0.0030

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

* Air particulate samples are collected by the licensee on a weekly basis

“No Data” indicates no sample results due to maintenance issues with equipment

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Weekly* Air Particulate Samples**

**Finninger Farm, OC Dredge Site (OCAP06)
(continued)**

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
07/01/09 - 07/08/09	0.022 ± 0.0020
07/08/09 - 07/15/09	0.020 ± 0.0030
07/15/09 - 07/22/09	0.028 ± 0.0030
07/22/09 - 07/28/09	0.031 ± 0.0030
07/28/09 - 08/05/09	0.018 ± 0.0020
08/05/09 - 08/12/09	0.037 ± 0.0040
08/12/09 - 08/19/09	0.035 ± 0.0030
08/19/09 - 08/26/09	0.023 ± 0.0030
08/26/09 - 09/02/09	0.028 ± 0.0030
09/02/09 - 09/09/09	0.029 ± 0.0030
09/09/09 - 09/16/09	0.024 ± 0.0030
09/16/09 - 09/23/09	0.021 ± 0.0030
09/23/09 - 09/30/09	0.022 ± 0.0030
09/30/09 - 10/07/09	0.026 ± 0.0030
10/07/09 - 10/14/09	0.028 ± 0.0030
10/14/09 - 10/21/09	0.025 ± 0.0030
10/21/09 - 10/28/09	0.025 ± 0.0030
10/28/09 - 11/04/09	0.017 ± 0.0020
11/04/09 - 11/11/09	0.036 ± 0.0040
11/11/09 - 11/18/09	0.020 ± 0.0030
11/18/09 - 11/24/09	0.026 ± 0.0030
11/24/09 - 12/02/09	0.020 ± 0.0040
12/02/09 - 12/09/09	0.029 ± 0.0040
12/09/09 - 12/16/09	0.033 ± 0.0040
12/16/09 - 12/22/09	0.031 ± 0.0030
12/22/09 - 12/29/09	0.021 ± 0.0030
12/29/09 - 01/01/06	0.025 ± 0.0030

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

* Air particulate samples are collected by the licensee on a weekly basis

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gross Beta in Weekly Air Particulate Samples**

**Access Road to Finninger Farm Property (ENE Sector)
(OCAI07)**

<u>Collection Period</u>	<u>Particulate Gross Beta</u> <u>(pCi/m³)</u>
07/14/09 - 07/28/09	0.016 ± 0.0010
07/28/09 - 08/11/09	0.021 ± 0.0010
08/11/09 - 08/24/09	0.021 ± 0.0010
08/24/09 - 09/07/09	0.018 ± 0.0010
09/07/09 - 09/22/09	0.017 ± 0.0010
09/22/09 - 10/06/09	0.016 ± 0.0010
10/06/09 - 10/23/09	0.017 ± 0.0010
10/23/09 - 11/02/09	0.015 ± 0.0010
11/02/09 - 11/17/09	0.017 ± 0.0010
11/17/09 - 11/30/09	0.018 ± 0.0010
11/30/09 - 12/16/09	0.011 ± 0.0010
12/16/09 - 12/29/09	0.019 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

* New air sampling site- the collection of air particulate filters at this site commenced the week of 07/14/09

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Fort Elfsborg Road (AIAP01)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/14/09	0.018 ± 0.0015
01/14/09 - 01/26/09	0.023 ± 0.0019
01/26/09 - 02/09/09	0.019 ± 0.0016
02/09/09 - 02/23/09	0.015 ± 0.0015
02/23/09 - 03/09/09	0.020 ± 0.0016
03/09/09 - 03/23/09	0.020 ± 0.0015
03/23/09 - 04/07/09	0.011 ± 0.0015
04/07/09 - 04/21/09	0.017 ± 0.0018
04/21/09 - 05/06/09	0.014 ± 0.0016
05/06/09 - 05/18/09	0.011 ± 0.0015
05/18/09 - 06/01/09	0.012 ± 0.0010
06/01/09 - 06/15/09	0.013 ± 0.0010
06/15/09 - 06/29/09	0.012 ± 0.0010
06/29/09 - 07/13/09	0.014 ± 0.0010
07/13/09 - 07/27/09	0.021 ± 0.0010
07/27/09 - 08/10/09	0.023 ± 0.0010
08/10/09 - 08/26/09	0.019 ± 0.0010
08/26/09 - 09/15/09	0.019 ± 0.0010
09/15/09 - 09/21/09	0.023 ± 0.0020
09/21/09 - 10/05/09	0.015 ± 0.0010
10/05/09 - 10/22/09	0.018 ± 0.0010
10/22/09 - 11/02/09	0.018 ± 0.0010
11/02/09 - 11/16/09	0.023 ± 0.0010
11/16/09 - 11/30/09	0.020 ± 0.0010
11/30/09 - 12/14/09	0.024 ± 0.0010
12/14/09 - 12/28/09	0.018 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Plant Access Road (AIAP02)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/14/09	0.017 ± 0.0015
01/14/09 - 01/26/09	0.024 ± 0.0020
01/26/09 - 02/09/09	0.020 ± 0.0017
02/09/09 - 02/23/09	0.015 ± 0.0015
02/23/09 - 03/09/09	0.019 ± 0.0016
03/09/09 - 03/23/09	0.021 ± 0.0017
03/23/09 - 04/07/09	0.013 ± 0.0014
04/07/09 - 04/21/09	0.016 ± 0.0016
04/21/09 - 05/06/09	0.014 ± 0.0015
05/06/09 - 05/18/09	0.011 ± 0.0014
05/18/09 - 06/01/09	0.012 ± 0.0010
06/01/09 - 06/15/09	0.008 ± 0.0010
06/15/09 - 06/29/09	0.011 ± 0.0010
06/29/09 - 07/13/09	0.014 ± 0.0010
07/13/09 - 07/27/09	0.020 ± 0.0010
07/27/09 - 08/10/09	0.022 ± 0.0010
08/10/09 - 08/26/09	0.017 ± 0.0010
08/26/09 - 09/15/09	0.018 ± 0.0010
09/15/09 - 09/21/09	0.021 ± 0.0020
09/21/09 - 10/05/09	0.015 ± 0.0010
10/05/09 - 10/22/09	0.018 ± 0.0010
10/22/09 - 11/02/09	0.016 ± 0.0010
11/02/09 - 11/16/09	0.023 ± 0.0010
11/16/09 - 11/30/09	0.019 ± 0.0010
11/30/09 - 12/14/09	0.023 ± 0.0010
12/14/09 - 12/28/09	0.020 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

Lower Alloways Creek School (AIAP03)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
12/30/08 - 01/14/09	0.022 ± 0.0018
01/14/09 - 01/26/09	0.024 ± 0.0021
01/26/09 - 02/09/09	0.019 ± 0.0018
02/09/09 - 02/23/09	0.010 ± 0.0011
02/23/09 - 03/09/09	0.033 ± 0.0031
03/09/09 - 03/23/09	0.019 ± 0.0018
03/23/09 - 04/07/09	0.011 ± 0.0013
04/07/09 - 04/21/09	0.015 ± 0.0016
04/21/09 - 05/06/09	0.015 ± 0.0015
05/06/09 - 05/18/09	0.011 ± 0.0014
05/18/09 - 06/01/09	0.012 ± 0.0010
06/01/09 - 06/15/09	0.012 ± 0.0010
06/15/09 - 06/29/09	0.011 ± 0.0010
06/29/09 - 07/13/09	0.014 ± 0.0010
07/13/09 - 07/27/09	0.018 ± 0.0010
07/27/09 - 08/10/09	0.019 ± 0.0010
08/10/09 - 08/26/09	0.020 ± 0.0010
08/26/09 - 09/15/09	0.016 ± 0.0010
09/15/09 - 09/21/09	0.021 ± 0.0020
09/21/09 - 10/05/09	0.016 ± 0.0010
10/05/09 - 10/22/09	0.018 ± 0.0010
10/22/09 - 11/02/09	0.015 ± 0.0010
11/02/09 - 11/16/09	0.020 ± 0.0010
11/16/09 - 11/30/09	0.015 ± 0.0010
11/30/09 - 12/14/09	0.021 ± 0.0010
12/14/09 - 12/28/09	0.021 ± 0.0010

Results in picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**BNE Background Location
Concentrations of Gamma Emitters and Strontium in
Quarterly Composite Air Samples**

BNE Office (COAP01)

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08	- 03/23/09	< 1.3	< 1.5	< 1.3	80 ± 30	< 11.0	< 0.7
03/23/09	- 07/01/09	< 0.2	< 0.2	< 0.2	< 5.0	< 0.4	< 0.4
07/01/09	- 09/24/09	< 0.5	< 0.5	< 0.5	< 14.0	< 0.8	< 0.1
09/24/09	- 12/28/09	< 0.5	< 0.7	< 0.5	< 15.0	< 0.3	< 0.1

Brendan T. Byrne State Forest (COAP02)

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08	- 03/24/09	< 1.4	< 1.2	< 1.0	96 ± 29	< 5.4	< 0.6
03/24/09	- 07/01/09	< 0.2	< 0.2	< 0.3	< 6.0	< 0.3	< 0.3
07/01/09	- 09/22/09	< 0.6	< 0.5	< 0.5	< 17.0	< 1.0	< .2
09/22/09	- 12/29/09	< 0.5	< 0.5	< 0.5	< 8.0	< 0.3	< 0.1

Results in 10⁻³ picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

Beryllium-7 (Be-7) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gamma Emitters and Strontium in
Quarterly Composite Air Samples**

Waretown Municipal Building (OCAP01)

<u>Collection Period</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08 - 03/24/09	< 1.3	< 1.1	< 1.6	96 ± 38	< 13.3	< 1.0
03/24/09 - 07/01/09	< 0.3	< 0.4	< 0.4	< 10.0	< 0.3	< 0.3
07/01/09 - 09/22/09	< 0.7	< 0.7	< 0.7	< 25.0	< 2.0	< 0.3
09/22/09 - 12/29/09	< 0.5	< 0.5	< 0.5	< 12.0	< 0.3	< 0.1

Sands Point Harbor (OCAP02)

<u>Collection Period</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08 - 03/24/09	< 2.6	< 2.5	< 2.5	136 ± 51	< 15.0	< 1.4
03/24/09 - 07/01/09	< 0.4	< 0.4	< 0.3	< 9.0	< 0.4	< 0.4
07/01/09 - 09/22/09	< 0.9	< 0.9	< 0.7	< 30.0	< 1.0	< 0.2
09/22/09 - 12/29/09	< 0.7	< 0.4	< 0.6	< 12.0	< 0.3	< 0.1

Forked River Marina (OCAP03)

<u>Collection Period</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08 - 03/24/09	< 1.8	< 2.0	< 1.4	82 ± 25	< 10.1	< 1.1
03/24/09 - 07/01/09	< 0.4	< 0.4	< 0.3	< 9.0	< 0.4	< 0.4
07/01/09 - 09/22/09	< 0.8	< 0.8	< 0.7	< 26.0	< 1.0	< 0.2
09/22/09 - 12/29/09	< 0.6	< 0.5	< 0.5	< 12.0	< 0.3	< 0.1

Lacey Township Recreation Building (OCAP04)

<u>Collection Period</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08 - 03/24/09	< 1.7	< 2.2	< 1.7	107 ± 36	< 14.0	< 1.1
03/24/09 - 07/01/09	< 0.4	< 0.3	< 0.3	< 9.0	< 0.4	< 0.3
07/01/09 - 09/22/09	< 0.8	< 1.0	< 0.9	< 33.0	< 1.0	< 0.2
09/22/09 - 12/29/09	< 0.5	< 0.4	< 0.6	< 12.0	< 0.4	< 0.1

Results in 10⁻³ picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

Beryllium-7 (Be-7) is a naturally occurring radionuclide found in the environment.

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**Oyster Creek
Concentrations of Gamma Emitters and Strontium in
Quarterly Composite Air Samples**

Jersey Central Power and Light Substation (OCAP05)

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08	- 03/24/09	< 1.2	< 1.4	< 1.0	120 ± 26	< 9.4	< 0.8
03/24/09	- 07/01/09	< 0.3	< 0.4	< 0.3	< 9.0	< 0.4	< 0.4
07/01/09	- 09/22/09	< 0.7	< 0.8	< 0.8	< 35.0	< 1.0	< 0.2
09/22/09	- 12/29/09	< 0.6	< 0.5	< 0.5	< 14.0	< 0.5	< 0.1

Finninger Farm, OC Dredge Site (OCAP06)

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08	- 03/24/09	< 5.2	< 4.4	< 4.0	< 105.0	< 28.4	< 1.6
03/24/09	- 07/01/09	< 0.8	< 0.7	< 0.8	< 17.0	< 0.4	< 0.4
07/01/09	- 09/30/09	< 1.0	< 1.0	< 2.0	< 44.0	< 3.0	< 0.4
09/30/09	- 12/29/09	< 1.0	< 1.0	< 1.0	< 25.0	< 0.8	< 0.2

Access Road, Finninger Farm Property (ENE Sector) (OCAP07)*

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
07/01/09	- 09/22/09	< 1.0	< 1.0	< 1.0	< 34.0	< 1.0	< 0.2
09/22/09	- 12/29/09	< 0.7	< 0.6	< 0.6	< 16.0	< 0.5	< 0.1

* The collection of air particulate filters at this site commenced during the week of 07/14/09

Results in 10⁻³ picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

Beryllium-7 (Be-7) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
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**Salem / Hope Creek
Concentrations of Gamma Emitters and Strontium in
Quarterly Composite Air Samples**

Fort Elfsborg Road (AIAP01)

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08	- 03/23/09	< 1.7	< 1.5	< 1.8	121 ± 41	< 12.8	< 0.9
03/23/09	- 06/29/09	< 0.4	< 0.4	< 0.4	< 8.0	< 0.4	< 0.4
06/29/09	- 09/21/09	< 0.4	< 0.4	< 0.5	< 13.0	< 1.0	< 0.2
09/21/09	- 12/28/09	< 0.4	< 0.5	< 0.4	< 11.0	< 0.4	< 0.1

Plant Access Road (AIAP02)

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08	- 03/23/09	< 1.2	< 1.8	< 1.7	133 ± 50	< 14.6	< 1.1
03/23/09	- 06/29/09	< 0.4	< 0.4	< 0.3	< 10.0	< 0.4	< 0.3
06/29/09	- 09/21/09	< 0.8	< 0.8	< 0.7	< 25.0	< 0.8	< 0.1
09/21/09	- 12/28/09	< 0.6	< 0.6	< 0.5	< 12.0	< 0.4	< 0.1

Lower Alloways Creek School (AIAP03)

<u>Collection Period</u>		<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>Be-7</u>	<u>Sr-89</u>	<u>Sr-90</u>
12/30/08	- 03/23/09	< 1.3	< 2.6	< 1.8	141 ± 48	< 13.9	< 1.1
03/23/09	- 06/29/09	< 0.3	< 0.3	< 0.4	< 8.0	< 0.4	< 0.4
06/29/09	- 09/21/09	< 0.7	< 0.8	< 0.7	< 21.0	< 1.0	< 0.2
09/21/09	- 12/28/09	< 0.4	< 0.5	< 0.5	< 12.0	< 0.4	< 0.1

Results in 10^{-3} picoCuries per cubic meter (pCi/m³) +/- 2 Standard Deviations

Beryllium-7 (Be-7) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gamma Emitters and Strontium in Fish/Shellfish Samples**

Stouts Creek (OCFS01)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89*</u>	<u>Sr-90*</u>
04/13/09 - Clams	< 35	< 33	< 29	< 29	1254 ± 420	< 31	< 9
10/05/09 - Clams	< 3	< 3	< 3	< 3	929 ± 96	< 464	< 313

East of Site – Barnegat Bay (OCFS02)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89*</u>	<u>Sr-90*</u>
04/13/09 - Clams	< 38	< 39	< 36	< 36	1549 ± 537	< 30	< 8
10/05/09 - Clams	< 4	< 4	< 3	< 4	1111 ± 112	< 363	< 245

Great Bay / Little Egg Harbor (OCFS03)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89*</u>	<u>Sr-90*</u>
04/15/09 - Clams	< 32	< 27	< 29	< 29	1532 ± 448	< 23	< 9
10/07/09 - Clams	< 5	< 4	< 4	< 4	1520 ± 141	< 364	< 246

* Starting June 1, 2009, samples were analyzed by the BNE's new Radiological Contract Laboratory. The use of a smaller sample size resulted in higher minimum detectable concentrations.

Results in picoCuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gamma Emitters and Strontium in Fish/Shellfish Samples**

OCNGS Discharge Canal between Pump Discharges and US Route 9 (OCFS04)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89*</u>	<u>Sr-90*</u>
04/15/09 – Striped Bass	< 17	< 20	< 16	< 20	4355 ± 323	< 40	< 14
06/04/09 – Bluefish	< 10	< 13	< 9	< 12	4395 ± 425	< 861	< 895
10/05/09 – Tautog	< 8	< 7	< 6	< 7	5876 ± 405	< 284	< 192
10/06/09 – Black Drum	< 9	< 8	< 7	< 8	4978 ± 383	< 445	< 300
10/06/09 – Striped Bass	< 5	< 4	< 4	< 4	4781 ± 311	< 309	< 209
10/06/09 - Bluefish	< 8	< 7	< 6	< 7	5029 ± 364	< 419	< 283

ESE of Site, EAST of U.S. Route 9 Bridge at the OCNGS Discharge Canal (OCFS05)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89*</u>	<u>Sr-90*</u>
04/14/09 - Striped Bass	< 12	< 13	< 12	< 13	4312 ± 262	< 37	< 17
10/06/09 - Bluefish	< 6	< 5	< 5	< 6	5263 ± 346	< 335	< 226

* Starting June 1, 2009, samples were analyzed by the BNE's new Radiological Contract Laboratory. The use of a smaller sample size resulted in higher minimum detectable concentrations.

Results in picoCuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
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2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters and Strontium in Fish/Shellfish Samples**

Onsite Surface Water Inlet Building (AIFS01)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89</u>	<u>Sr-90</u>
07/15/09 - Crabs	< 3	< 3	< 3	< 3	1681 ± 130	< 670	< 763
08/28/09 - Crabs	< 3	< 3	< 3	< 3	2308 ± 169	< 661	< 748
07/30/09 – Fish *	< 4	< 3	< 3	< 3	3114 ± 200	< 725	< 798
10/26/09 – Fish **	< 3	< 3	< 2	< 2	2648 ± 189	< 420	< 478

Delaware River – West Bank Upstream (AIFS02)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>	<u>Sr-89</u>	<u>Sr-90</u>
07/15/09 - Crabs	< 3	< 3	< 3	< 3	2257 ± 159	< 814	< 929
08/28/09 - Crabs	< 2	< 3	< 2	< 3	2094 ± 144	< 753	< 854
07/14/09 – Fish **	< 4	< 3	< 3	< 3	3440 ± 220	< 786	< 866
10/26/09 – Fish **	< 4	< 3	< 3	< 4	3373 ± 224	< 469	< 535

Results in picoCuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

* Fish consist of various species including Channel Catfish, Bluefish, Black Drum, and Striped Bass

** Fish consist of various species including Striped Bass and Channel Catfish

**New Jersey Department of Environmental Protection
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**Oyster Creek
Concentrations of Gamma Emitters in Aquatic Sediment Samples**

Barnegat Bay (OCAQ01)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
04/13/09	167 ± 80	< 11	< 10	< 10	< 10	1682 ± 163
10/05/09	< 59	< 5	< 4	< 4	< 5	354 ± 88

Oyster Creek Discharge Canal (OCAQ02)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
04/13/09	< 161	< 17	< 14	< 16	< 17	8833 ± 370
10/05/09	< 114	< 11	< 9	< 10	< 10	3757 ± 309

Great Bay / Little Egg Harbor (OCAQ03)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
04/15/09	< 180	< 19	< 20	< 18	< 21	19590 ± 610
10/07/09	< 104	< 11	< 10	< 8	< 10	15860 ± 942

Stouts Creek (OCAQ04)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
04/13/09	273 ± 150	< 15	< 12	< 14	< 15	4148 ± 242
10/05/09	< 59	< 6	< 5	< 5	< 5	3325 ± 245

Results in picoCuries per kilogram – DRY (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) and Beryllium-7 (Be-7) are naturally occurring radionuclides found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters in Aquatic Sediment Samples**

Onsite Observation Building (AIAQ01)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
06/25/09	< 60	< 6	< 4	< 4	< 4	1312 ± 134
11/05/09	< 48	< 5	< 5	< 4	< 5	1252 ± 131

Surface Water Inlet Building (AIAQ02)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
06/25/09	< 59	< 6	< 4	< 4	< 4	2175 ± 171
10/28/09	< 81	< 8	< 6	< 6	< 7	4190 ± 310

Onsite – Cooling Tower Blowdown Discharge Line (AIAQ03)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
06/25/09	< 82	< 7	< 6	< 5	< 6	3585 ± 259
10/28/09	< 82	< 8	< 7	< 6	< 7	3819 ± 278

Onsite – South Storm Drain Discharge Line (AIAQ04)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
06/25/09	< 118	< 11	< 8	< 8	< 9	5845 ± 391
10/28/09	< 113	< 11	< 9	< 9	< 10	4378 ± 327

West Bank of Delaware River – Upstream (AIAQ05)

<u>Collection Date</u>	<u>Be-7</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
06/25/09	< 130	< 13	< 10	< 9	< 10	15690 ± 928
10/28/09	< 123	< 13	< 10	< 9	< 11	12660 ± 770

Results in picoCuries per kilogram – DRY (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) and Beryllium-7 (Be-7) are naturally occurring radionuclides found in the environment.

**New Jersey Department of Environmental Protection
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**Oyster Creek
Concentrations of Gamma Emitters in Vegetable Samples**

Oyster Creek Onsite Garden (OCVE01)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	07/29/09	< 4	< 4	< 3	< 4	2210 ± 191
Collards	07/29/09	< 4	< 4	< 3	< 4	2584 ± 195
Kale	07/29/09	< 3	< 3	< 3	< 3	2464 ± 178
Cabbage	08/25/09	< 4	< 4	< 4	< 4	2482 ± 193
Collards	08/25/09	< 3	< 3	< 3	< 3	2062 ± 154
Kale	08/25/09	< 3	< 3	< 3	< 4	2552 ± 200
Cabbage	09/30/09	< 3	< 3	< 2	< 2	2682 ± 192
Collards	09/30/09	< 3	< 3	< 3	< 3	2113 ± 150
Kale	09/30/09	< 5	< 5	< 4	< 5	3602 ± 256
Cabbage	10/26/09	< 3	< 3	< 3	< 3	3161 ± 228
Collards	10/26/09	< 3	< 3	< 2	< 3	1946 ± 140

Private Farm – NW Sector (OCVE02)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	07/29/09	< 3	< 4	< 3	< 3	2173 ± 161
Swiss Chard	07/29/09	< 3	< 4	< 3	< 3	5125 ± 313
Cabbage	08/25/09	< 2	< 3	< 2	< 2	2005 ± 140
Collards	08/25/09	< 4	< 4	< 3	< 4	3648 ± 246
Kale	08/25/09	< 3	< 4	< 3	< 3	3333 ± 218
Cabbage	09/30/09	< 4	< 3	< 3	< 3	1872 ± 146
Collards	09/30/09	< 3	< 3	< 3	< 3	3685 ± 229
Kale	09/30/09	< 3	< 3	< 3	< 3	4640 ± 318
Cabbage	10/26/09	< 3	< 3	< 2	< 3	1968 ± 147
Collards	10/26/09	< 6	< 5	< 5	< 6	4020 ± 334
Kale	10/26/09	< 8	< 9	< 7	< 8	3799 ± 324

Results in picoCuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gamma Emitters in Vegetable Samples**

Oyster Creek Onsite Garden (OCVE03)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	08/25/09	< 5	< 5	< 4	< 5	2899 ± 233
Cabbage	09/30/09	< 3	< 3	< 3	< 3	2582 ± 198
Cabbage	10/26/09	< 9	< 9	< 9	< 9	2554 ± 297

Results in picoCuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters in Vegetable Samples**

Private Farm – NNE (AIVE05)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Corn	07/02/09	< 4	< 3	< 3	< 3	1176 ± 121
Tomato	07/02/09	< 4	< 3	< 3	< 3	1936 ± 141

Private Farm – NNE (AIVE07)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Tomato	07/28/09	< 3	< 3	< 2	< 3	1983 ± 154

Private Farm – NE (AIVE08)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	07/09/09	< 4	< 4	< 4	< 4	2393 ± 188

Private Farm – NE (AIVE10)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	07/28/09	< 3	< 3	< 2	< 2	2019 ± 158

Private Farm – NE (AIVE11)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	06/28/09	< 5	< 3	< 3	< 3	2404 ± 190

Private Farm – N (AIVE12)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	09/28/09	< 3	< 2	< 2	< 2	2418 ± 159
Cabbage	12/29/09	< 3	< 3	< 2	< 3	3804 ± 262

Private Farm – NW (AIVE13)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	12/29/09	< 4	< 4	< 3	< 4	3848 ± 250

Private Farm – NNW (AIVE14)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	09/28/09	< 4	< 3	< 3	< 3	2688 ± 184
Cabbage	12/29/09	< 3	< 3	< 3	< 3	3905 ± 243

Results in picoCuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters in Vegetable Samples**

Private Farm – SSW (AIVE15)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	12/29/09	< 3	< 3	< 3	< 3	3133 ± 201

Private Farm – SE (AIVE17)

<u>Sample</u>	<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>K-40</u>
Cabbage	07/28/09	< 3	< 3	< 2	< 3	2323 ± 160
Tomato	07/28/09	< 3	< 3	< 3	< 3	1861 ± 137
Pepper	07/28/09	< 5	< 5	< 4	< 4	2001 ± 174

Results in picoCuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**BNE Background Location
Concentrations of Gamma Emitters and Strontium in Milk Samples**

State of New Jersey Dairy Farm (COMI01)

<u>Collection Date</u>	<u>Cs-137</u>	<u>I-131</u>	<u>K-40</u>	<u>Sr-89</u>	<u>Sr-90</u>
01/06/09	< 4.30	< 0.59	1272 ± 115	< 0.84	< 0.78
04/14/09	< 4.06	< 0.97	1168 ± 103	< 0.90	< 0.86
07/15/09	< 2.25	< 1.07*	1294 ± 102	< 0.85	< 0.97
11/10/09	< 2.56	< 0.34	1593 ± 159	< 1.00	< 0.67

* Sample result was in excess of the 1.0 pCi/L detection level due to low chemical yield. Low chemical yield is a result of the delay in time between sample collection and analysis along with I-131 decay due to its short half-life (8 days).

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters and Strontium in Milk Samples**

Private Farm – ENE (AIMI01)

<u>Collection Date</u>	<u>Cs-137</u>	<u>I-131</u>	<u>K-40</u>	<u>Sr-89</u>	<u>Sr-90</u>
01/05/09	< 3.78	< 0.67	1135 ± 92	No Data	< 0.39
02/02/09	< 3.82	< 0.65	874 ± 88	< 0.77	< 0.93
03/03/09	< 3.24	< 0.91	1189 ± 78	< 0.80	< 0.44
04/06/09	< 3.71	< 0.92	1202 ± 90	< 0.80	< 0.50
05/04/09	< 2.07	< 0.59	1283 ± 51	< 0.82	< 0.42
06/02/09	< 10.50	< 0.41	1119 ± 178	< 0.77	2.51 ± 0.43
07/06/09	< 2.28	< 2.60*	2041 ± 140	< 0.70	0.73 ± 0.39
08/03/09	< 1.35	< 3.84*	1687 ± 147	< 0.90	1.04 ± 0.58
09/08/09	< 1.56	< 0.39	2162 ± 185	< 0.65	< 0.50
10/05/09	< 1.46	< 0.57	1633 ± 144	< 0.97	< 1.07*
11/02/09	< 1.56	< 0.91	1658 ± 146	< 0.80	< 0.90
12/07/09	< 1.43	< 0.40	2248 ± 191	< 1.02*	< 0.71

Private Farm – NE (AIMI02)

<u>Collection Date</u>	<u>Cs-137</u>	<u>I-131</u>	<u>K-40</u>	<u>Sr-89</u>	<u>Sr-90</u>
01/05/09	< 3.84	< 0.65	1256 ± 88	< 0.70	0.87 ± 0.46
02/02/09	< 4.62	< 0.68	1409 ± 111	< 0.92	< 0.69
03/03/09	< 4.57	< 0.82	1385 ± 113	< 0.74	< 0.48
04/06/09	< 3.79	< 0.95	1271 ± 83	< 0.99	< 0.87
05/04/09	< 2.35	< 0.59	1240 ± 51	< 0.71	< 0.46
06/02/09	< 10.18	< 0.29	1081 ± 198	< 0.84	1.14 ± 0.47
07/06/09	< 2.43	< 1.40*	2308 ± 155	< 0.67	0.79 ± 0.37
08/03/09	< 1.45	< 2.01*	1450 ± 130	2.97 ± 1.04	< 0.82
09/08/09	< 1.42	< 0.47	1836 ± 160	< 0.84	< 0.65
10/05/09	< 1.84	< 0.53	1511 ± 135	3.24 ± 1.06	< 0.89
11/02/09	< 1.91	< 0.58	1526 ± 137	2.26 ± 0.98	< 0.92
12/07/09	< 1.32	< 0.40	1299 ± 116	< 1.11*	< 0.77

* Sample result was in excess of the 1.0 pCi/L detection level due to low chemical yield. Low chemical yield is a result of the delay in time between sample collection and analysis along with I-131 decay due to its short half-life (8 days) or Sr-89 decay for the same reason (51 days). In the case of Sr-90, a longer count time was employed. However, there was insufficient chemical recovery to meet the MDC.

“No Data” indicates Strontium-89 analysis was not performed due to limited sample size.

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters and Strontium in Milk Samples**

Private Farm – WNW (AIMI03)

<u>Collection Date</u>	<u>Cs-137</u>	<u>I-131</u>	<u>K-40</u>	<u>Sr-89</u>	<u>Sr-90</u>
01/05/09	< 4.53	< 0.93	1143 ± 107	< 0.90	1.50 ± 0.59
02/02/09	< 4.40	< 0.63	1115 ± 105	< 0.73	< 0.77
03/03/09	< 4.02	< 0.75	1171 ± 79	< 0.87	< 0.95
04/06/09	< 4.29	< 0.95	1379 ± 98	< 0.82	< 0.42
05/04/09	< 1.88	< 0.60	1300 ± 46	< 0.73	< 0.61
06/02/09	< 9.81	< 0.22	1149 ± 195	< 0.63	< 0.69
07/06/09	< 2.28	< 1.29*	2518 ± 182	2.36 ± 1.38	< 0.99
08/03/09	< 1.74	< 2.62*	1367 ± 122	< 0.82	< 0.91
09/08/09	< 1.85	< 0.45	1944 ± 168	1.74 ± 0.92	< 0.58
10/05/09	< 1.35	< 0.45	1714 ± 149	< 0.73	< 0.81
11/02/09	< 2.08	< 0.72	1520 ± 139	< 0.96	< 0.88
12/07/09	< 1.76	< 0.42	1399 ± 126	< 0.88	< 0.61

* Sample result was in excess of the 1.0 pCi/L detection level due to low chemical yield. Low chemical yield is a result of the delay in time between sample collection and analysis along with I-131 decay due to its short half-life (8 days).

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

Potassium-40 (K-40) is a naturally occurring radionuclide found in the environment.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gamma Emitters and Tritium (H-3) in Surface Water**

Barnegat Bay (OCSW01)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
04/13/09	< 5.58	< 6.12	< 4.43	< 5.11	< 269	< 0.42
10/05/09	< 1.17	< 1.14	< 1.05	< 1.27	< 251	< 0.41

Great Bay / Little Egg Harbor (OCSW02)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/27/09	< 4.83	< 5.46	< 4.85	< 5.62	< 251	< 0.71
02/26/09	< 7.89	< 5.23	< 4.89	< 5.51	< 248	< 0.49
03/26/09	< 5.25	< 6.47	< 4.38	< 5.69	< 247	< 0.50
04/02/09	< 6.83	< 5.62	< 4.72	< 5.55	< 242	< 0.61
05/27/09	< 5.46	< 5.69	< 4.51	< 4.21	< 294	< 0.43
06/24/09	< 2.56	< 2.35	< 2.16	< 2.02	< 282	< 0.54
07/28/09	< 1.40	< 1.19	< 1.04	< 1.12	< 258	< 14.99*
08/26/09	< 1.33	< 1.25	< 1.09	< 1.23	< 263	< 0.86
10/01/09	< 1.37	< 1.17	< 1.11	< 1.18	< 265	< 0.98
10/29/09	< 1.22	< 1.20	< 1.12	< 1.17	< 265	< 0.81
11/24/09	< 1.38	< 1.30	< 1.17	< 1.32	< 265	< 0.80
12/29/09	< 1.28	< 1.31	< 1.17	< 1.24	< 284	< 0.79

Stouts Creek (OCSW03)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
04/13/09	< 5.01	< 5.28	< 4.71	< 5.10	< 271	< 0.46
10/05/09	< 1.14	< 1.24	< 1.09	< 1.20	< 252	< 0.35

* Independent radiochemical Analysis of I-131 was not included on the Chain of Custody and therefore not performed by the contract laboratory. However, the analysis of I-131 was performed as part of the gamma spectroscopy counting method resulting in a higher minimum detectable concentration.

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gamma Emitters and Tritium (H-3) in Surface Water**

Oyster Creek Discharge Canal (OCSW04)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/29/09	< 3.80	< 4.60	< 3.85	< 4.88	< 262	< 0.52
02/26/09	< 7.12	< 5.70	< 4.73	< 5.18	< 248	< 0.49
03/25/09	< 4.42	< 5.41	< 4.70	< 4.64	< 246	< 0.46
04/01/09	< 5.52	< 4.74	< 4.50	< 5.07	< 248	< 0.53
05/27/09	< 5.40	< 5.37	< 4.42	< 5.04	< 285	< 0.55
06/25/09	< 2.23	< 2.06	< 2.00	< 2.06	< 282	< 0.47
07/29/09	< 1.34	< 1.06	< 1.05	< 1.09	< 250	< 13.04*
08/27/09	< 1.15	< 1.20	< 1.14	< 1.26	< 263	< 0.58
10/01/09	< 1.34	< 1.15	< 1.18	< 1.19	< 265	< 0.86
10/29/09	< 1.18	< 1.15	< 1.11	< 1.21	< 265	< 1.01**
11/24/09	< 1.37	< 1.32	< 1.25	< 1.39	< 265	< 0.77
12/29/09	< 1.23	< 1.17	< 1.14	< 1.26	< 284	< 0.51

* Independent radiochemical Analysis of I-131 was not included on the Chain of Custody and therefore not performed by the contract laboratory. However, the analysis of I-131 was performed as part of the gamma spectroscopy counting method resulting in a higher minimum detectable concentration.

** Sample result was in excess of the 1.0 pCi/L detection level due to low chemical yield. Low chemical yield is a result of the delay in time between sample collection and analysis along with I-131 decay due to its short half-life (8 days).

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters and Tritium (H-3) in Surface Water**

Surface Water Inlet Building Discharge (AISW01)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/05/09	< 4.39	< 4.32	< 3.82	< 5.02	< 282	< 0.66
02/06/09	< 5.38	< 5.05	< 4.68	< 4.80	< 254	< 0.57
03/05/09	< 4.98	< 5.16	< 4.81	< 4.87	< 241	< 0.49
04/09/09	< 4.76	< 5.08	< 4.93	< 4.77	< 265	< 0.63
05/04/09	< 5.05	< 5.08	< 4.66	< 4.97	< 244	< 0.47
06/01/09	< 2.08	< 1.95	< 1.93	< 2.07	< 292	< 0.70
07/09/09	< 2.68	< 2.23	< 2.34	< 2.47	< 277	< 2.28*
08/06/09	< 1.63	< 1.46	< 1.36	< 1.52	< 264	< 1.16*
09/08/09	< 1.56	< 1.43	< 1.44	< 1.70	< 258	< 0.71
10/09/09	< 1.17	< 1.23	< 1.04	< 1.09	< 249	< 0.49
11/02/09	< 2.15	< 2.42	< 2.33	< 2.47	< 265	< 0.41
12/08/09	< 1.32	< 1.27	< 1.20	< 1.28	< 281	< 0.42

West Bank – Delaware River (AISW02)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/05/09	< 6.56	< 5.70	< 5.44	< 6.45	< 288	< 0.63
02/06/09	< 4.60	< 4.97	< 4.38	< 4.32	< 255	< 0.58
03/05/09	< 3.64	< 3.80	< 3.62	< 3.74	< 232	< 0.51
04/09/09	< 5.35	< 5.85	< 4.55	< 4.86	< 265	< 0.59
05/04/09	< 5.20	< 5.91	< 4.47	< 4.90	< 245	< 0.40
06/01/09	< 2.60	< 2.14	< 2.24	< 2.31	< 295	< 0.78
07/09/09	< 2.55	< 2.22	< 2.32	< 2.29	< 273	< 2.01*
08/06/09	< 1.68	< 1.43	< 1.53	< 1.52	< 264	< 1.57*
09/17/09	< 1.16	< 1.07	< 1.05	< 1.24	< 258	< 0.67
10/09/09	< 1.59	< 1.47	< 1.43	< 1.60	< 250	< 0.49
11/02/09	< 3.13	< 3.24	< 2.83	< 3.22	< 265	< 0.37
12/08/09	< 1.63	< 1.77	< 1.58	< 1.78	< 281	< 0.38

* Sample result was in excess of the 1.0 pCi/L detection level due to low chemical yield. Low chemical yield is a result of the delay in time between sample collection and analysis along with I-131 decay due to its short half-life (8 days).

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Concentrations of Gamma Emitters and Tritium (H-3) in Well Water**

Oyster Creek Administration Building Onsite (OCWW01)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/28/09	< 5.00	< 4.73	< 4.35	< 4.89	< 258	< 0.54
04/22/09	< 5.42	< 4.48	< 4.31	< 5.44	< 278	< 0.60
07/10/09	< 1.88	< 1.92	< 2.02	< 2.10	< 274	< 0.77
10/14/09	< 1.46	< 1.41	< 1.38	< 1.52	< 260	< 0.28

Forked River Marina (OCWW02)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/26/09	< 4.40	< 4.15	< 3.34	< 4.36	< 265	< 0.52
04/20/09	< 5.26	< 5.01	< 4.43	< 4.79	< 275	< 0.63
07/10/09	< 2.34	< 2.13	< 2.05	< 2.24	< 274	< 0.88
10/14/09	< 1.51	< 1.49	< 1.39	< 1.54	< 260	< 0.25

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Concentrations of Gamma Emitters and Tritium (H-3) in Well Water**

Elsinboro School (AIWW01)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/26/09	< 4.35	< 4.59	< 4.21	< 4.49	< 253	< 0.57
04/21/09	< 5.20	< 5.06	< 4.39	< 4.55	< 270	< 0.46
07/13/09	< 2.43	< 2.32	< 2.30	< 2.34	< 276	< 0.72
10/22/09	< 1.66	< 1.55	< 1.42	< 1.61	< 265	< 0.50

Lower Alloways Creek Police Station (AIWW02)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/26/09	< 4.11	< 4.00	< 3.61	< 4.45	< 258	< 0.52
04/21/09	< 5.24	< 4.97	< 3.63	< 4.75	< 268	< 0.46
07/13/09	< 2.06	< 1.90	< 1.98	< 2.08	< 272	< 0.70
10/22/09	< 1.51	< 1.53	< 1.42	< 1.66	< 265	< 0.40

Salem Administration Building (AIWW03)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/26/09	< 4.78	< 5.97	< 4.89	< 4.80	< 261	< 0.49
04/21/09	< 5.94	< 5.56	< 4.64	< 5.26	< 265	< 0.52
07/13/09	< 1.97	< 1.85	< 1.97	< 1.98	< 275	< 0.58
10/13/09	< 1.03	< 1.14	< 1.04	< 1.09	< 260	< 0.38

Lower Alloways Creek School (AIWW04)

<u>Collection Date</u>	<u>Co-58</u>	<u>Co-60</u>	<u>Cs-134</u>	<u>Cs-137</u>	<u>H-3</u>	<u>I-131</u>
01/26/09	< 3.88	< 4.80	< 3.73	< 4.30	< 262	< 0.55
04/21/09	< 4.72	< 3.94	< 4.00	< 4.95	< 267	< 0.63
07/13/09	< 1.90	< 1.99	< 1.92	< 2.05	< 273	< 0.68
10/22/09	< 2.18	< 2.07	< 1.87	< 2.24	< 265	< 0.45

Results in picoCuries per Liter (pCi/L) +/- 2 Standard Deviations

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**BNE Background Location
Thermoluminescent Dosimetry Data
Quarterly Results for 2009**

<u>Station</u>	<u>Location</u>	<u>1st Quarter</u>		<u>2nd Quarter</u>		<u>3rd Quarter</u>		<u>4th Quarter</u>	
		<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>
CO01	BNE Office, Arctic Parkway, Ewing, NJ	14.7	1.8	13.8	1.5	13.8	1.5	14.1	2.2
CO02	Brendan T. Byrne State Forest, New Lisbon, NJ	11.1	2.5	10.1	0.9	10.4	3.0	10.6	3.3

Results are reported in units of milliroentgens (mR)

CV is the coefficient of variation; the ratio of the standard deviation to the mean, and is normally reported as a percentage

All exposures were normalized to 91 days (a standard quarter)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Thermoluminescent Dosimetry Data
Quarterly Results for 2009**

<u>Station</u>	<u>Location</u>	<u>1st Quarter</u>		<u>2nd Quarter</u>		<u>3rd Quarter</u>		<u>4th Quarter</u>	
		<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>
1	Ocean County Vocational School	9.7	2.4	9.1	3.8	8.9	0.9	9.2	1.3
2	Ocean Twp. Municipal Building	10.7	1.2	9.8	3.8	9.7	1.5	10.2	1.3
3	Sewage Pumping Station, Forked River	11.0	0.9	10.1	2.8	10.0	2.6	10.9	3.4
4	Twin River Station, Forked River	9.8	1.6	8.8	2.9	9.4	2.1	9.4	2.3
5	Sewage Pumping Station, Ocean Twp.	10.7	1.9	9.6	2.4	10.0	1.7	10.0	2.3
6	Oyster Creek, Gate #2, Forked River	11.4	2.4	10.1	1.2	25.8*	0.3	10.6	2.4
7	Finninger Farm, Forked River	9.2	1.8	8.6	3.9	8.7	2.7	8.9	2.9
8	Ocean Co. Memorial Cemetery, Waretown	10.0	1.7	8.7	2.0	9.2	2.4	9.4	2.3
9	Oyster Creek Building 17, Forked River	11.0	0.9	9.8	1.7	10.2	3.0	10.4	3.3
10	Sheffield & Derby Rd, Forked River	10.1	1.3	9.4	4.5	9.7	2.2	9.7	4.1
11	Lakeside Drive, Forked River	10.6	3.6	9.6	0.8	9.7	2.2	10.3	2.4
12	Forked River Game Farm, Forked River	10.6	3.3	9.7	1.5	9.6	1.1	10.0	1.5

Results are reported in units of milliroentgens (mR)

CV is the coefficient of variation; the ratio of the standard deviation to the mean, and is normally reported as a percentage.

All exposures were normalized to 91 days (a standard quarter)

* Radiography performed by New Jersey Natural Gas on equipment in an area adjacent to the TLD badges in August 2009.

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Oyster Creek
Thermoluminescent Dosimetry Data
Quarterly Results for 2009**

<u>Station</u>	<u>Location</u>	<u>1st Quarter</u>		<u>2nd Quarter</u>		<u>3rd Quarter</u>		<u>4th Quarter</u>	
		<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>
13	Restrooms, Lakeside Dr., Forked River	10.1	3.1	9.3	1.6	9.3	1.9	9.7	2.6
14	Sands Pt. Park, Dock Ave., Waretown	11.3	1.7	10.3	1.4	10.5	2.0	10.8	2.1
15	Recreation Center, Waretown	9.9	2.6	9.2	2.7	9.0	1.9	9.3	0.5
16	North Access Rd., Forked River	10.9	2.4	9.9	2.1	10.3	2.0	10.9	2.3
20	Third Avenue, Barnegat Light	9.1	4.5	8.2	2.1	8.9	2.0	*	*
21	Rose Hill Road & Barnegat Blvd	10.7	1.6	9.6	1.7	10.0	1.8	*	*
22	Bay Way & Claimore Avenue	10.4	2.4	9.5	1.0	9.6	2.3	10.1	2.7
23	Island Beach State Park, Parking Lot A5	9.3	2.8	8.6	1.4	8.6	1.3	9.3	5.4

Results are reported in units of milliroentgens (mR).

CV is the coefficient of variation; the ratio of the standard deviation to the mean, and is normally reported as a percentage.

All exposures were normalized to 91 days (a standard quarter).

* TLD badges missing most likely due to vandalism

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Salem/Hope Creek
Thermoluminescent Dosimetry Data
Quarterly Results for 2009**

<u>Station</u>	<u>Location</u>	<u>1st Quarter</u>		<u>2nd Quarter</u>		<u>3rd Quarter</u>		<u>4th Quarter</u>	
		<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>
1	Access Road – Security Checkpoint	11.7	2.1	11.3	2.7	11.3	2.1	11.3	2.9
2	Poplar Road, Lower Alloways	12.3	3.2	12.0	2.5	12.2	1.6	11.6	2.3
3	Money and Eagle Island Road	13.5	1.1	12.6	0.8	12.6	2.0	12.6	2.2
4	Ft. Elfsborg / Hancocks – East	14.3	1.1	13.6	0.8	13.6	0.3	13.3	3.4
5	Ft. Elfsborg / Hancocks – West	18.0	1.9	17.8	2.3	17.4	2.0	16.8	3.0
6	Stathems Neck Road	12.1	1.6	11.3	2.1	11.9	3.2	11.6	2.0
7	Stow Neck Road Lower Alloways	10.5	1.6	9.8	1.4	10.0	1.6	10.0	2.8
8	Alloways Creek Neck Road - Middle	10.5	2.0	9.9	1.5	10.3	3.2	9.9	3.8
9	Alloways Creek Neck Road - North	13.6	1.4	13.0	1.9	13.0	2.6	12.9	4.6
10	Abbotts Farm Road	10.6	2.8	10.0	3.2	10.0	1.1	10.3	2.3
11	PSEG Education Center/EOF	*	*	*	*	*	*	11.4	2.4

Results are reported in units of milliroentgens (mR)

CV is the coefficient of variation; the ratio of the standard deviation to the mean, and is normally reported as a percentage. All exposures were normalized to 91 days (a standard quarter)

* New TLD site - TLD badges deployed 4th Quarter 2009, therefore no data was available the first 3 quarters

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

Comparison of NJDEP and Global Dosimetry Solutions Thermoluminescent Dosimetry Data for Oyster Creek

Quarterly Results for Co-located Dosimeters for 2009

<u>Station</u>	<u>Location</u>	<u>1st Quarter</u>				<u>2nd Quarter</u>				<u>3rd Quarter</u>				<u>4th Quarter</u>			
		<u>NJDEP</u>		<u>Global</u>		<u>NJDEP</u>		<u>Global</u>		<u>NJDEP</u>		<u>Global</u>		<u>NJDEP</u>		<u>Global</u>	
		<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>
5	Sewage Pump. Station, Ocean Township	10.7	1.9	*	*	9.6	2.4	*	*	10.0	1.7	*	*	10.0	2.3	7.4	6.7
7	Finninger Farm,OCNGS Forked River	9.2	1.8	*	*	8.6	3.9	*	*	8.7	2.7	*	*	8.9	2.9	5.9	0.0
13	Restrooms, Lakeside Dr. Forked River	10.1	3.1	*	*	9.3	1.6	*	*	9.3	1.9	*	*	9.7	2.6	6.9	0.0
21	Rose Hill and Barnegat Rd Barnegat Twp.	10.7	1.6	*	*	9.6	1.7	*	*	10.0	1.8	*	*	**	**	**	**

Results are reported in units of milliroentgens (mR)

CV is the coefficient of variation; the ratio of the standard deviation to the mean, and is normally reported as a percentage

All exposures were normalized to 91 days (a standard quarter)

* Co-located TLDs deployed 4th quarter of 2009 therefore no intercomparison data is available the first 3 quarters

** TLD badges missing

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

**Comparison of NJDEP and Global Dosimetry Solutions Thermoluminescent Dosimetry Data for Salem/Hope Creek
Quarterly Results for Co-located Dosimeters for 2009**

<u>Station</u>	<u>Location</u>	<u>1st Quarter</u>				<u>2nd Quarter</u>				<u>3rd Quarter</u>				<u>4th Quarter</u>			
		<u>NJDEP</u>		<u>Global</u>		<u>NJDEP</u>		<u>Global</u>		<u>NJDEP</u>		<u>Global</u>		<u>NJDEP</u>		<u>Global</u>	
		<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>
1	Access Road – Security Checkpoint	11.7	2.1	9.7	4.7	11.3	2.7	9.5	7.8	11.3	2.1	11.1	3.3	11.3	2.9	8.6	6.0
2	Poplar Road, Lower Alloways	12.3	3.2	9.3	2.8	12.0	2.5	9.8	3.0	12.2	1.6	10.9	5.4	11.6	2.3	8.6	3.8
3	Money and Eagle Island Roads	13.5	1.1	*	*	12.6	0.8	*	*	12.6	2.0	*	*	12.6	2.2	11.7	4.5
5	Ft. Elfsborg/ Hancocks - West	18.0	1.9	15.3	7.6	17.8	2.3	16.8	5.6	17.4	2.0	14.6	2.1	16.8	3.0	12.4	3.1

Results are reported in units of milliroentgens (mR)

CV is the coefficient of variation; the ratio of the standard deviation to the mean, and is normally reported as a percentage

All exposures were normalized to 91 days (a standard quarter)

* Co-located TLDs deployed starting 1st quarter of 2009

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program**

Comparison of NJDEP and Global Dosimetry Solutions Thermoluminescent Dosimetry Data for Salem/Hope Creek

Quarterly Results for Co-located Dosimeters for 2009

<u>Station</u>	<u>Location</u>	<u>1st Quarter</u>		<u>2nd Quarter</u>		<u>3rd Quarter</u>		<u>4th Quarter</u>									
		<u>NJDEP</u>		<u>Global</u>		<u>NJDEP</u>		<u>Global</u>									
		<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>	<u>Result</u>	<u>%CV</u>								
7	Stow Neck Road-Lower Alloways	10.5	1.6	*	*	9.8	1.4	*	*	10.0	1.6	*	*	10.0	2.8	7.2	6.6
9	Alloways Creek Neck Road - North	13.6	1.4	10.8	9.1	13.0	1.9	10.1	6.9	13.0	2.6	12.8	4.7	12.9	4.6	9.9	4.2
11	PSEG Ed. Center/EOF Salem City**	*	*	*	*	*	*	*	*	*	*	*	*	11.4	2.4	8.6	7.6

Results are reported in units of milliroentgens (mR)

CV is the coefficient of variation; the ratio of the standard deviation to the mean, and is normally reported as a percentage

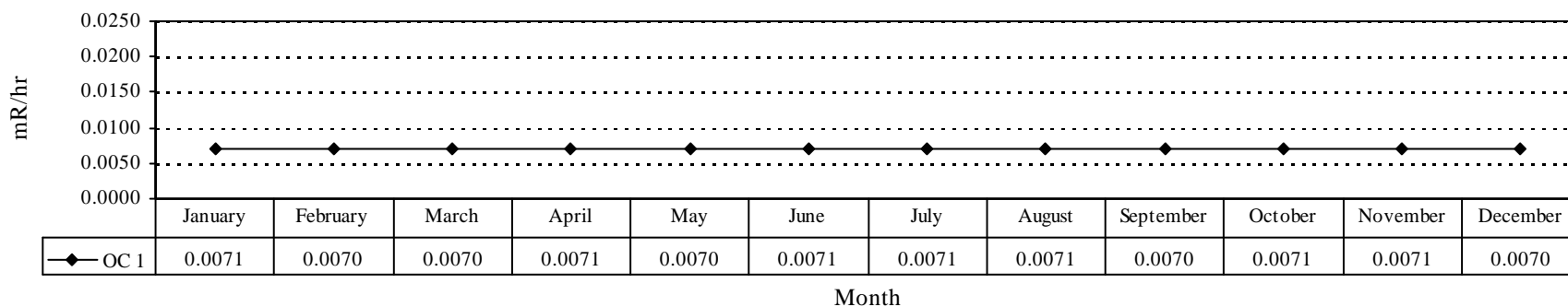
All exposures were normalized to 91 days (a standard quarter)

* New intercomparison site- TLDs deployed 4th quarter 2009 therefore no intercomparison data available the first 3 quarters

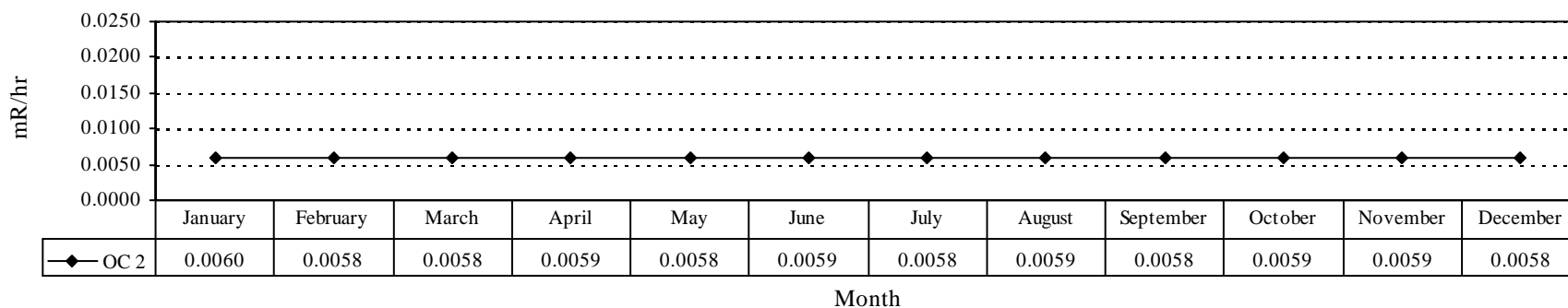
** Entire new sampling location initiated 4th quarter of 2009

New Jersey Department of Environmental Protection
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2009 Radiological Environmental Monitoring Program
Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

OC 1
2009 Ambient Radiation Levels

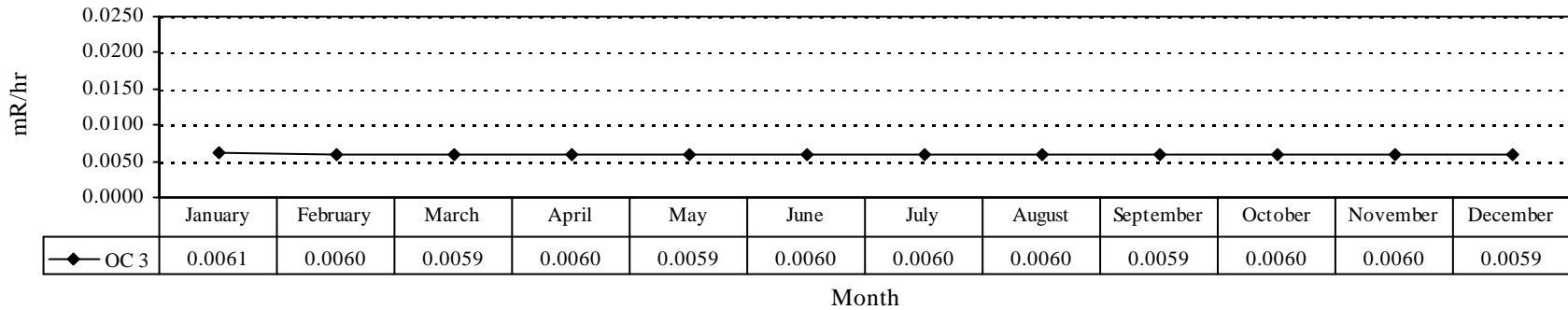


OC 2
2009 Ambient Radiation Levels

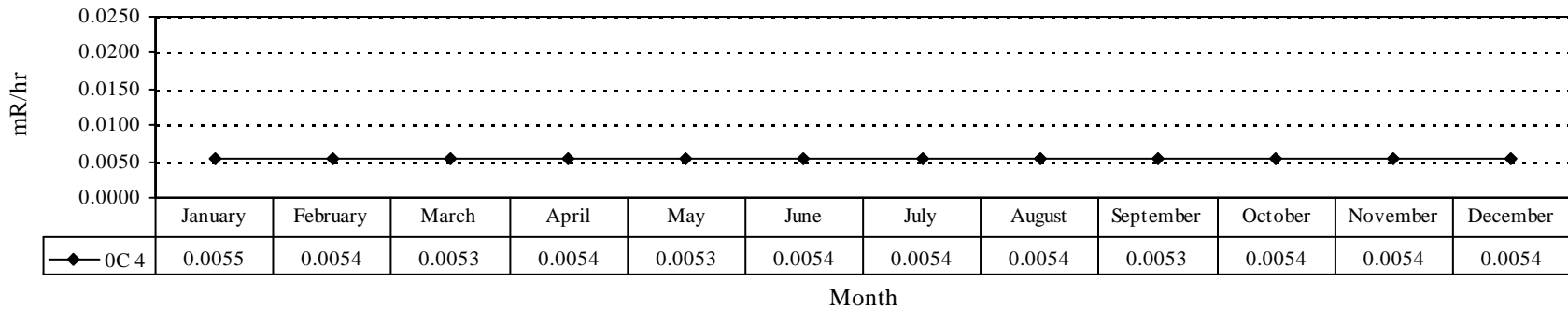


New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program
Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

OC 3
2009 Ambient Radiation Levels

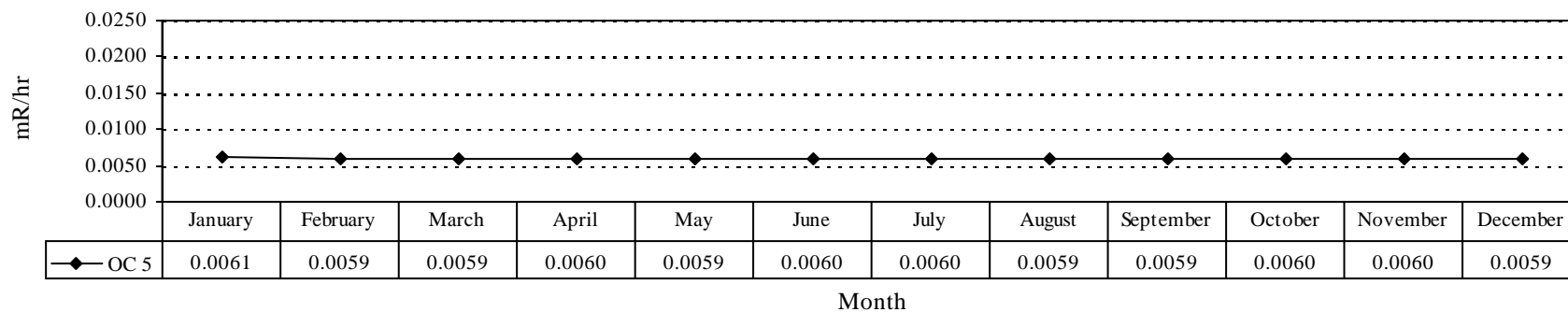


OC 4
2009 Ambient Radiation Levels

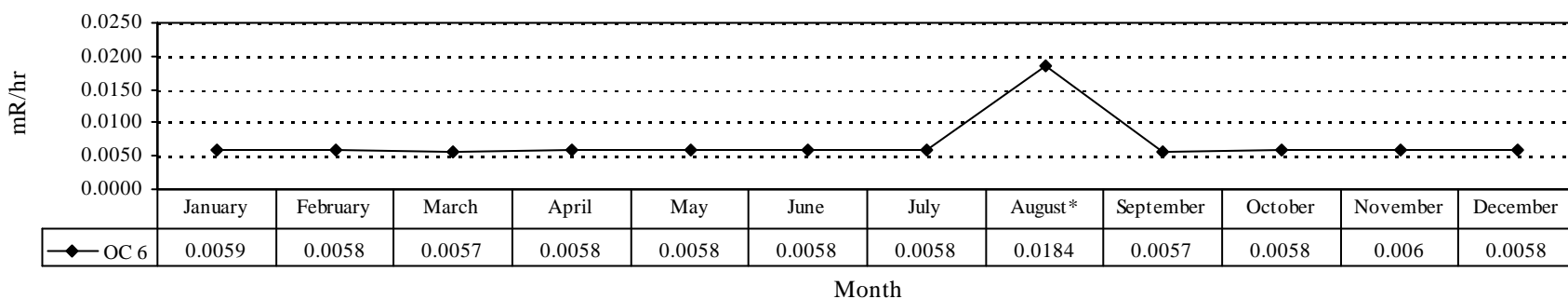


New Jersey Department of Environmental Protection
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OC 5
 2009 Ambient Radiation Levels



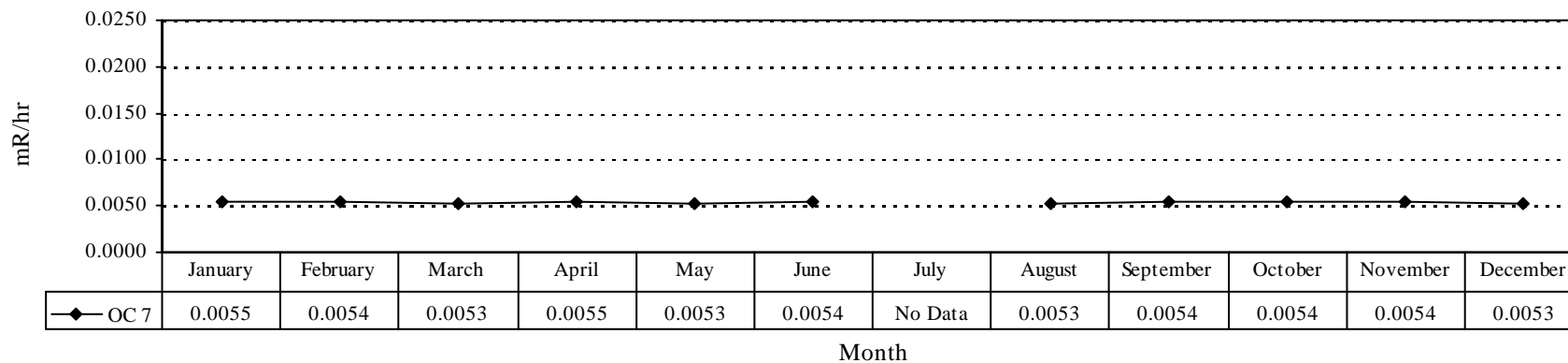
OC 6
 2009 Ambient Radiation Levels



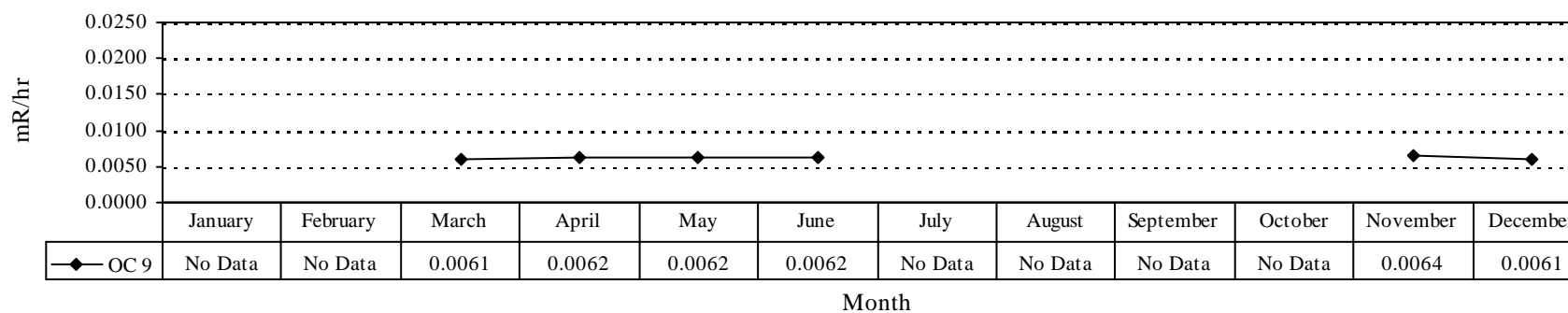
* Radiography performed by New Jersey Natural Gas on equipment in an area adjacent to the CREST monitor during August 2009

New Jersey Department of Environmental Protection
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 Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

OC 7
 2009 Ambient Radiation Levels



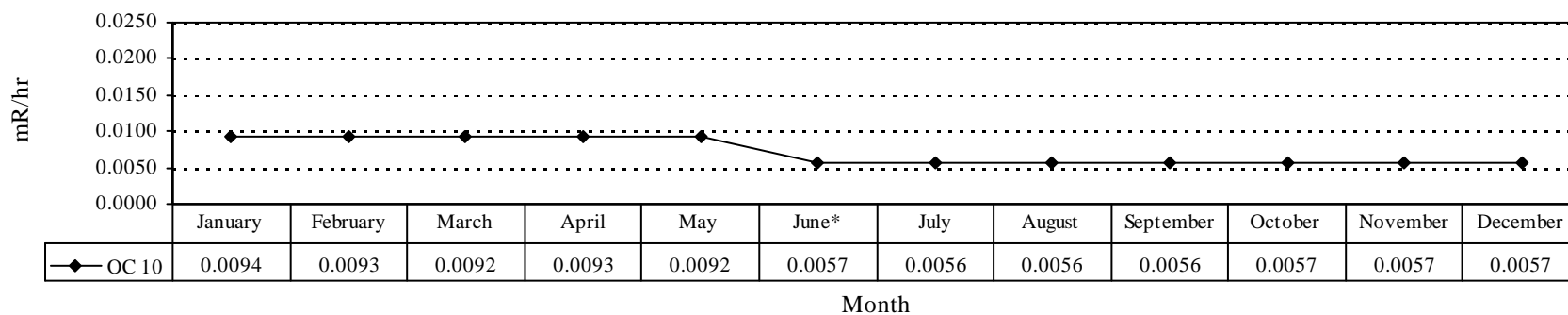
OC 9
 2009 Ambient Radiation Levels



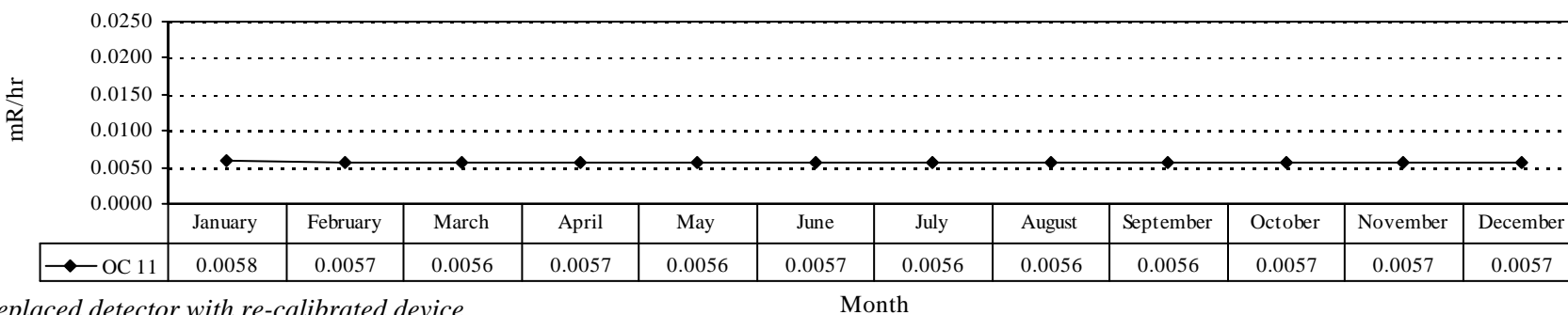
Blank months indicate "No Data Available" OC-8 was not operational in 2009; therefore no data graph is available

**New Jersey Department of Environmental Protection
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2009 Radiological Environmental Monitoring Program
Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data**

**OC 10*
2009 Ambient Radiation Levels**



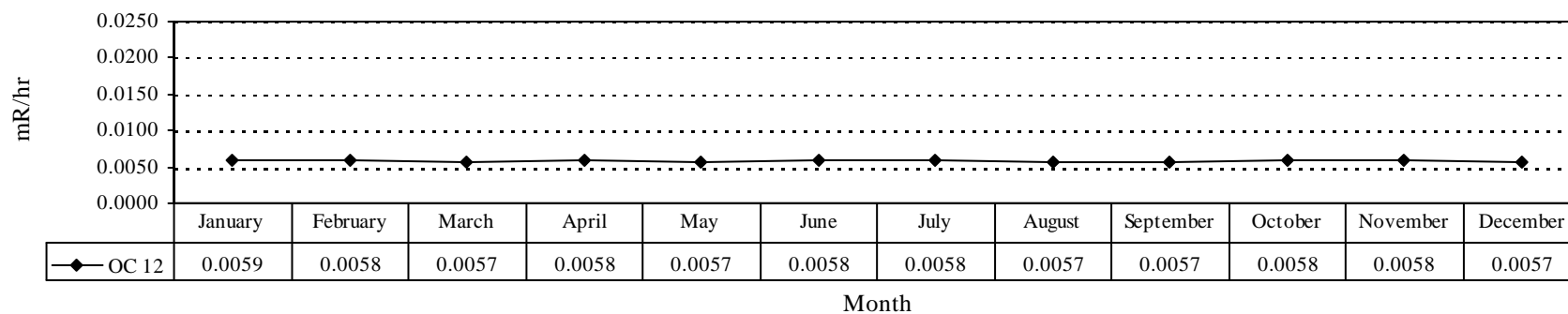
**OC 11
2009 Ambient Radiation Levels**



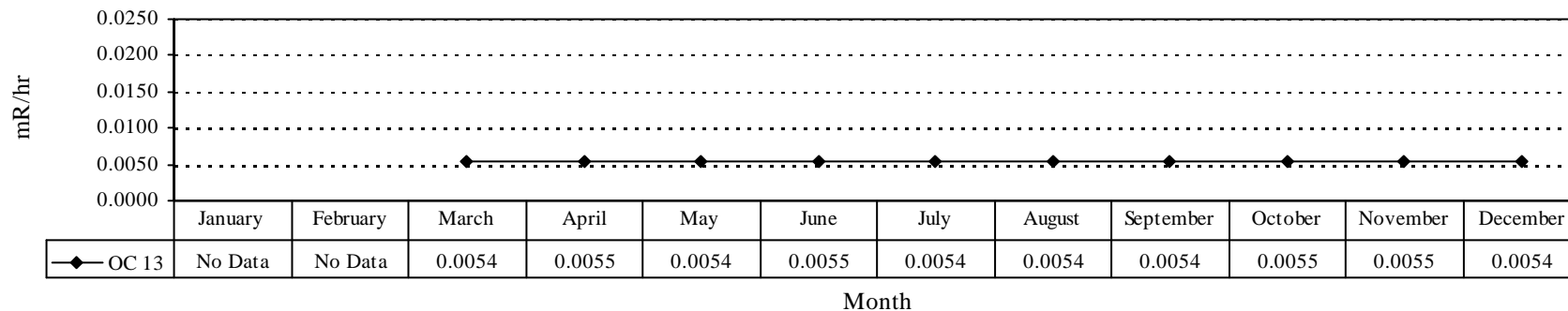
* Replaced detector with re-calibrated device

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OC 12
2009 Ambient Radiation Levels



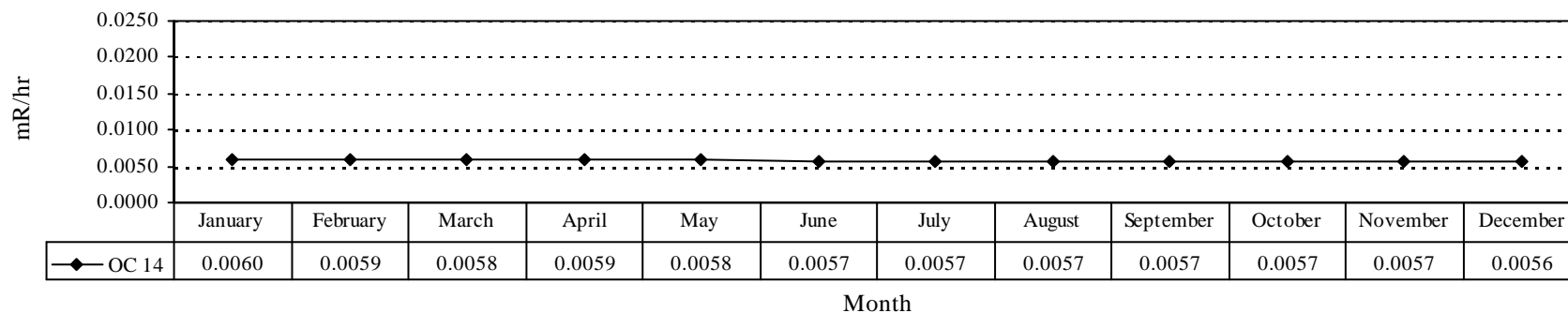
OC 13
2009 Ambient Radiation Levels



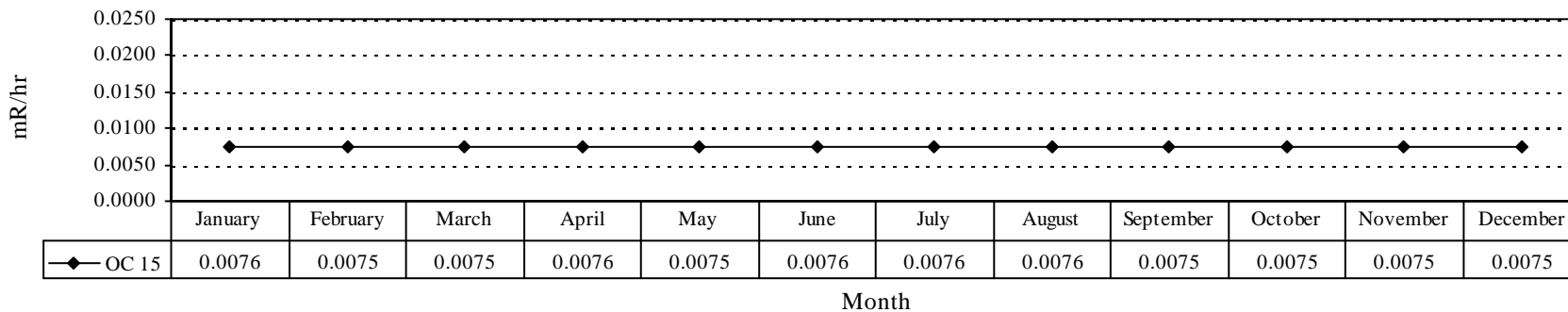
Blank months indicate "No Data Available"

New Jersey Department of Environmental Protection
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Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

OC 14
2009 Ambient Radiation Levels

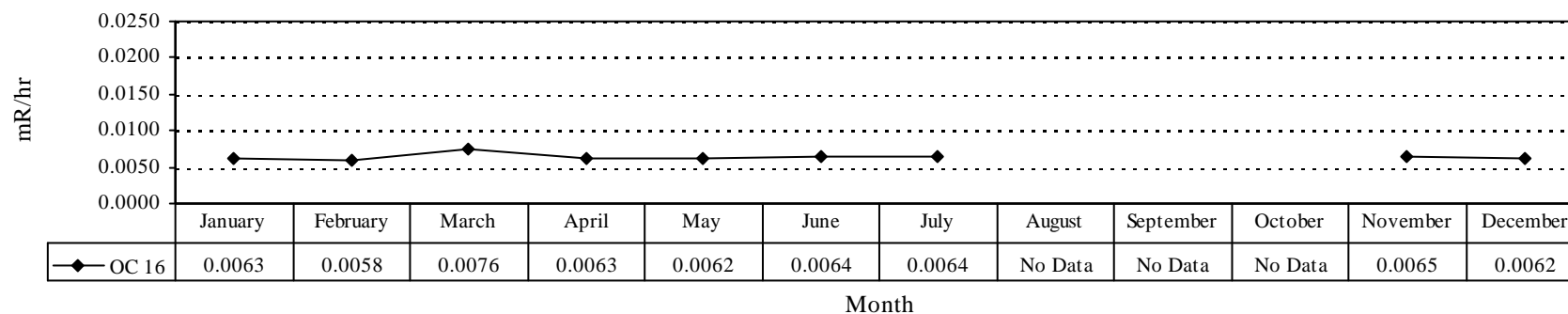


OC 15
2009 Ambient Radiation Levels



New Jersey Department of Environmental Protection
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Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

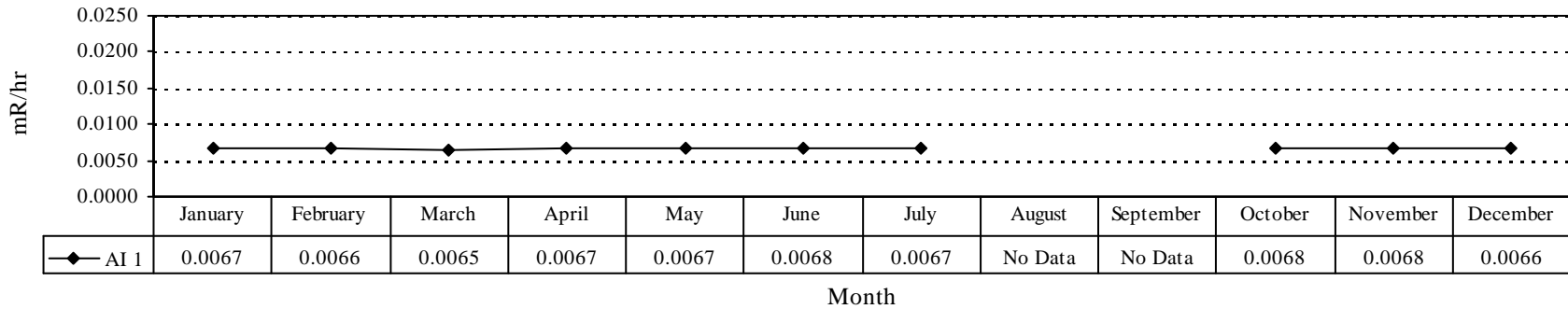
OC 16
2009 Ambient Radiation Levels



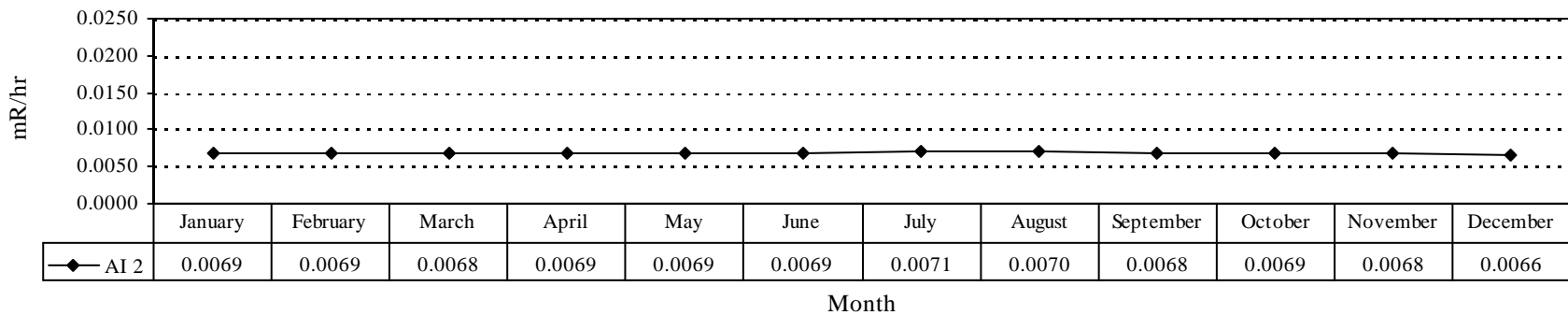
Blank months indicate 'No Data Available'

New Jersey Department of Environmental Protection
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2009 Radiological Environmental Monitoring Program
Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

AI 1
2009 Ambient Radiation Levels



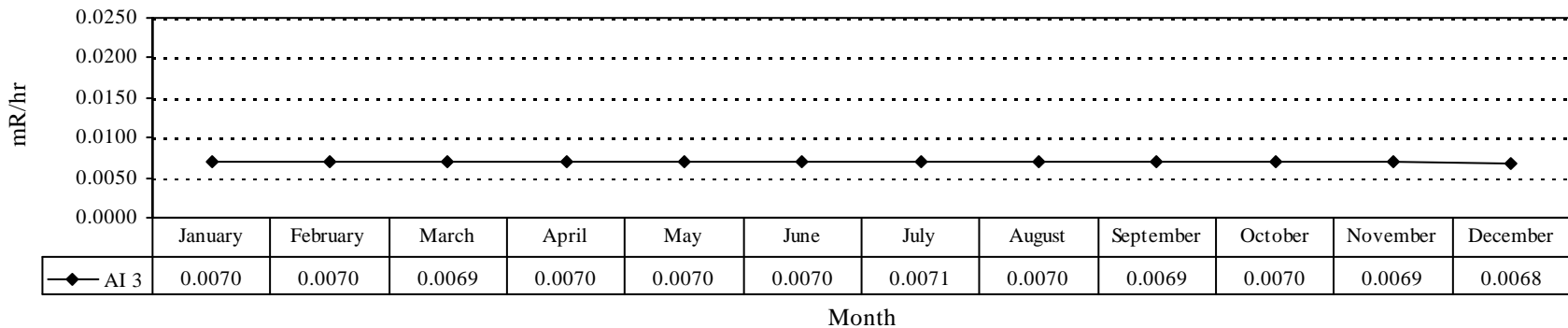
AI 2
2009 Ambient Radiation Levels



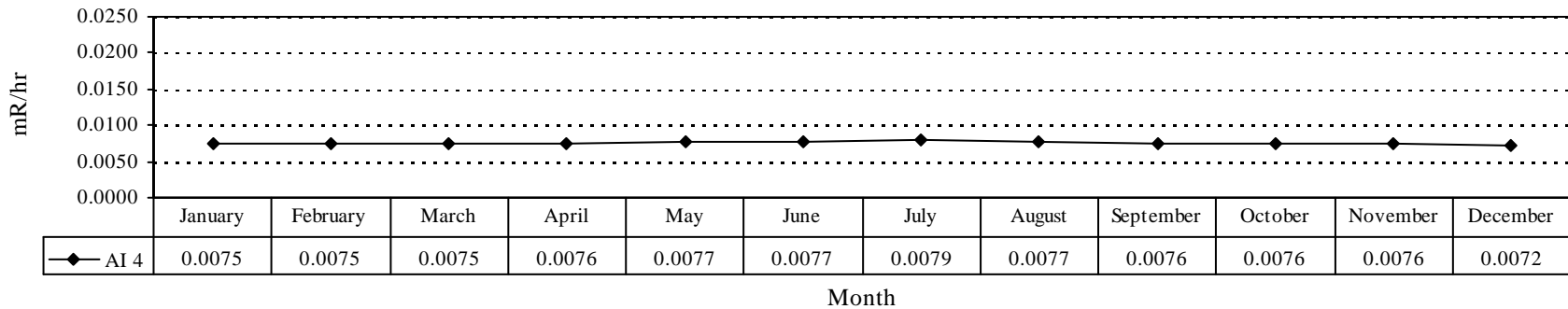
Blank months indicate "No Data Available"

New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program
Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

AI 3
2009 Ambient Radiation Levels

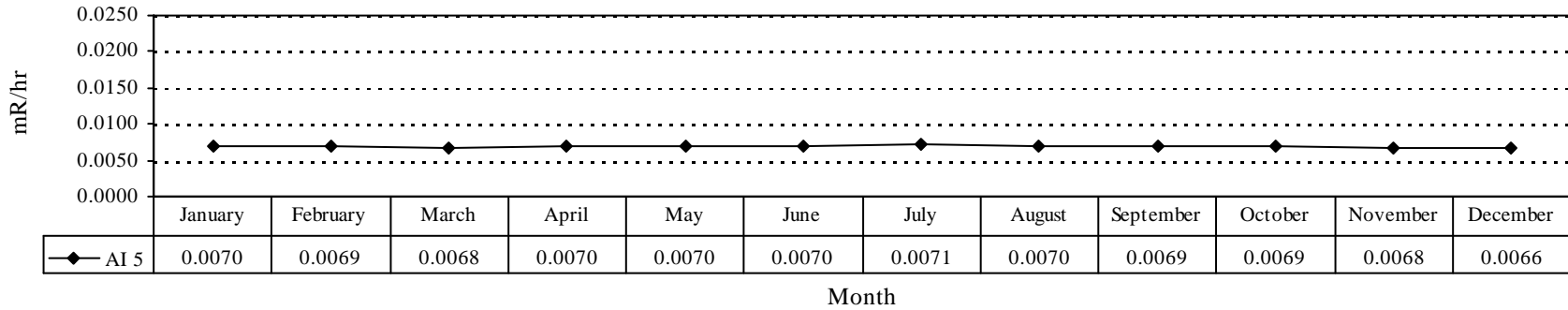


AI 4
2009 Ambient Radiation Levels

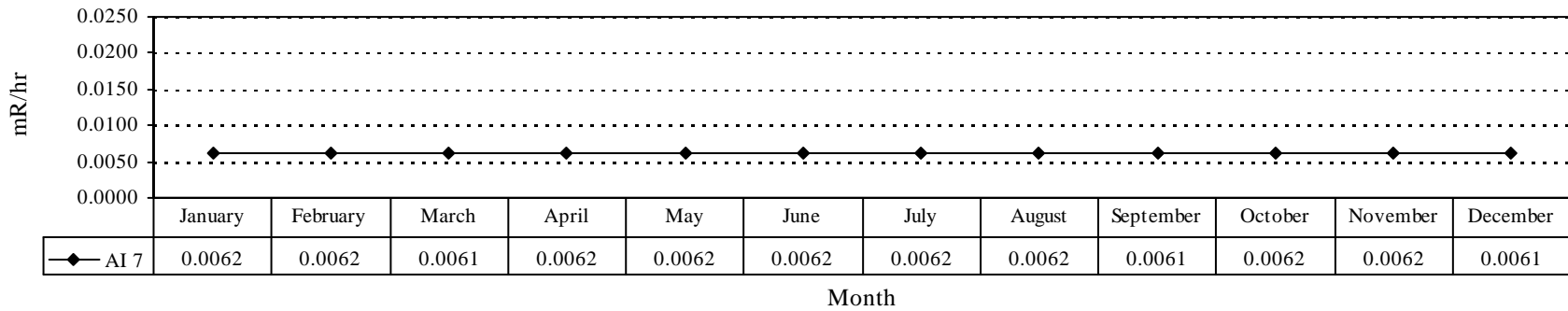


New Jersey Department of Environmental Protection
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Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

AI 5
2009 Ambient Radiation Levels



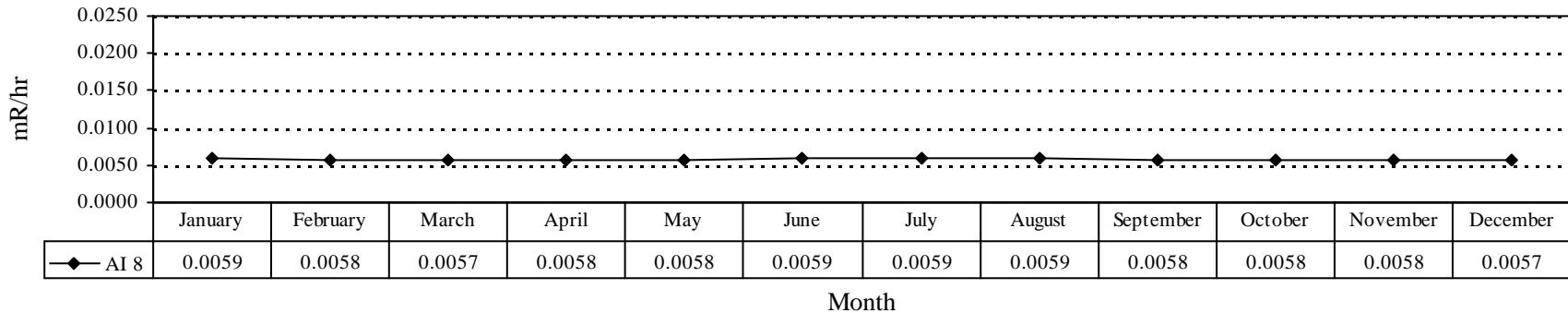
AI 7
2009 Ambient Radiation Levels



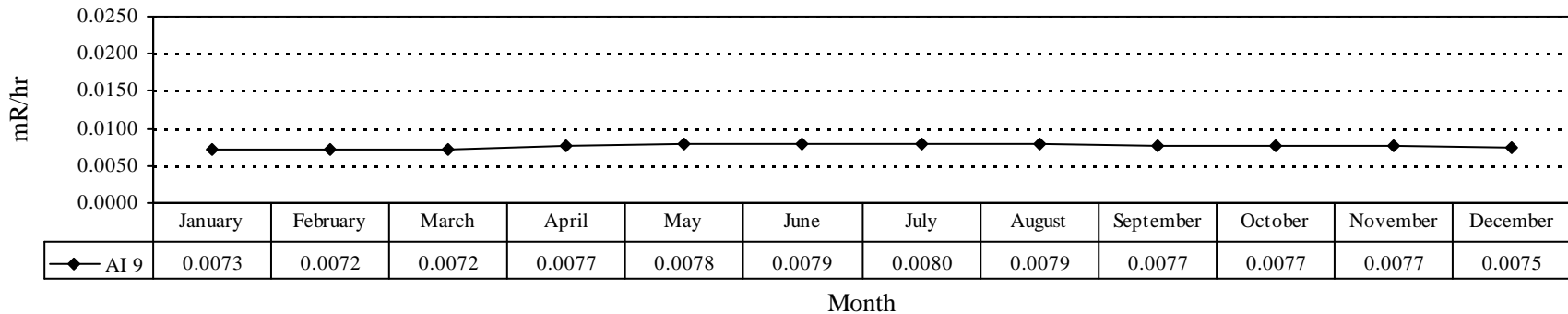
AI-6 was not operational in 2009; therefore no data graph is available

New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program
Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

AI 8
2009 Ambient Radiation Levels

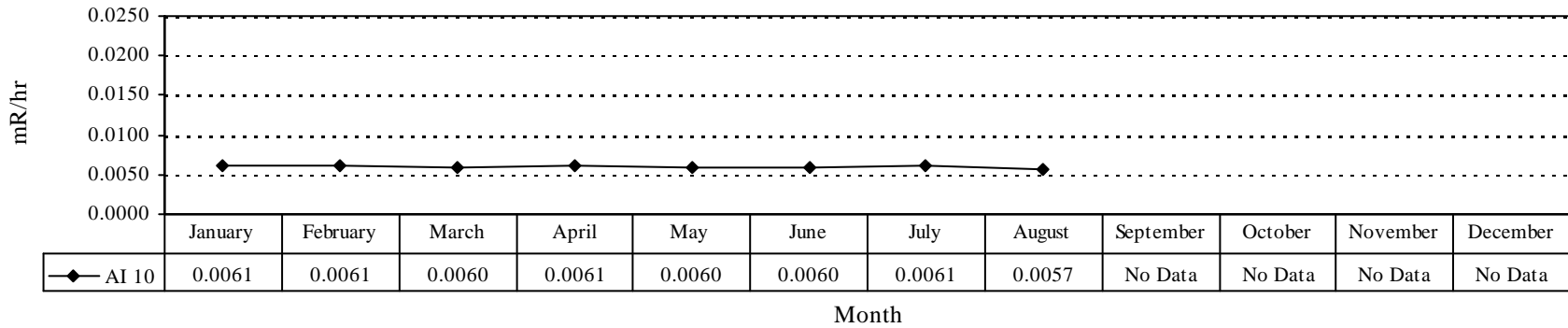


AI 9
2009 Ambient Radiation Levels



New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2009 Radiological Environmental Monitoring Program
Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

AI 10
2009 Ambient Radiation Levels



Blank months indicate "No Data Available"