

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

BNE Office (COAI01)

<u>Collection Period</u>	<u>I-131 (pCi/m³)</u>
01/07/13 - 01/22/13	< 0.005
01/22/13 - 02/04/13	< 0.011
02/04/13 - 02/19/13	< 0.009
02/19/13 - 03/04/13	< 0.008
03/04/13 - 03/19/13	< 0.008
03/19/13 - 04/02/13	< 0.007
04/02/13 - 04/15/13	< 0.011
04/15/13 - 04/29/13	< 0.013
04/29/13 - 05/14/13	< 0.011
05/14/13 - 05/28/13	< 0.008
05/28/13 - 06/10/13	< 0.007
06/10/13 - 06/24/13	< 0.006
06/24/13 - 07/08/13	< 0.011
07/08/13 - 07/22/13	< 0.006
07/22/13 - 08/06/13	< 0.011
08/06/13 - 08/19/13	< 0.006
08/19/13 - 09/03/13	< 0.010
09/03/13 - 09/17/13	< 0.013
09/17/13 - 10/01/13	< 0.010
10/01/13 - 10/15/13	< 0.011
10/15/13 - 10/29/13	< 0.013
10/29/13 - 11/12/13	< 0.010
11/12/13 - 11/25/13	< 0.013
11/25/13 - 12/11/13	< 0.005
12/11/13 - 12/20/13	< 0.009
12/20/13 - 01/07/14	< 0.004

Results in picoCuries per cubic meter (pCi/m³)

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

Brendan T. Byrne State Forest (COAI02)

<u>Collection Period</u>			<u>I-131</u> <u>(pCi/m³)</u>
01/07/13	-	01/22/13	< 0.007
01/22/13	-	02/04/13	< 0.008
02/04/13	-	02/19/13	< 0.009
02/19/13	-	03/04/13	< 0.011
03/04/13	-	03/19/13	< 0.005
03/19/13	-	04/02/13	< 0.006
04/02/13	-	04/15/13	< 0.020
04/15/13	-	04/29/13	< 0.007
04/29/13	-	05/13/13	< 0.007
05/13/13	-	05/28/13	< 0.007
05/28/13	-	06/10/13	< 0.013
06/10/13	-	06/24/13	< 0.010
06/24/13	-	07/08/13	< 0.011
07/08/13	-	07/22/13	< 0.006
07/22/13	-	08/06/13	< 0.007
08/06/13	-	08/19/13	< 0.010
08/19/13	-	09/03/13	< 0.006
09/03/13	-	09/17/13	< 0.016
09/17/13	-	10/01/13	< 0.012
10/01/13	-	10/15/13	< 0.008
10/15/13	-	10/29/13	< 0.011
10/29/13	-	11/12/13	< 0.005
11/12/13	-	11/25/13	< 0.019
11/25/13	-	12/11/13	< 0.005
12/11/13	-	12/20/13	< 0.018
12/20/13	-	01/07/14	< 0.005

Results in picoCuries per cubic meter (pCi/m³)

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**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>
01/07/13 - 01/22/13	< 0.006
01/22/13 - 02/04/13	< 0.007
02/04/13 - 02/19/13	< 0.014
02/19/13 - 03/04/13	< 0.011
03/04/13 - 03/19/13	< 0.013
03/19/13 - 04/02/13	< 0.007
04/02/13 - 04/15/13	< 0.013
04/15/13 - 04/29/13	< 0.016
04/29/13 - 05/13/13	< 0.009
05/13/13 - 05/28/13	< 0.009
05/28/13 - 06/10/13	< 0.010
06/10/13 - 06/24/13	< 0.010
06/24/13 - 07/08/13	< 0.019
07/08/13 - 07/22/13	< 0.006
07/22/13 - 08/06/13	< 0.009
08/06/13 - 08/19/13	< 0.006
08/19/13 - 09/03/13	< 0.007
09/03/13 - 09/17/13	< 0.006
09/17/13 - 10/01/13	< 0.011
10/01/13 - 10/15/13	< 0.012
10/15/13 - 10/29/13	< 0.021
10/29/13 - 11/12/13	< 0.005
11/12/13 - 11/25/13	< 0.012
11/25/13 - 12/11/13	< 0.005
12/11/13 - 12/20/13	< 0.016
12/20/13 - 01/07/14	< 0.004

Results in picoCuries per cubic meter (pCi/m³)

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

Sands Point Harbor (OCAI02)

<u>Collection Period</u>			<u>I-131</u> <u>(pCi/m³)</u>
01/07/13	-	01/22/13	< 0.006
01/22/13	-	02/04/13	< 0.011
02/04/13	-	02/19/13	< 0.014
02/19/13	-	03/04/13	< 0.009
03/04/13	-	03/19/13	< 0.007
03/19/13	-	04/02/13	< 0.014
04/02/13	-	04/15/13	< 0.015
04/15/13	-	04/29/13	< 0.008
04/29/13	-	05/13/13	< 0.008
05/13/13	-	05/28/13	< 0.007
05/28/13	-	06/10/13	< 0.008
06/10/13	-	06/24/13	< 0.008
06/24/13	-	07/08/13	< 0.014
07/08/13	-	07/22/13	< 0.006
07/22/13	-	08/06/13	< 0.006
08/06/13	-	08/19/13	< 0.015
08/19/13	-	09/03/13	< 0.005
09/03/13	-	09/17/13	< 0.015
09/17/13	-	10/01/13	< 0.006
10/01/13	-	10/15/13	< 0.012
10/15/13	-	10/29/13	< 0.013
10/29/13	-	11/12/13	< 0.007
11/12/13	-	11/25/13	< 0.012
11/25/13	-	12/11/13	< 0.010
12/11/13	-	12/20/13	< 0.018
12/20/13	-	01/07/14	< 0.005

Results in picoCuries per cubic meter (pCi/m³)

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**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>
01/07/13 - 01/22/13	< 0.004
01/22/13 - 02/04/13	< 0.007
02/04/13 - 02/19/13	< 0.007
02/19/13 - 03/04/13	< 0.017
03/04/13 - 03/19/13	< 0.004
03/19/13 - 04/02/13	< 0.009
04/02/13 - 04/15/13	< 0.010
04/15/13 - 04/29/13	< 0.008
04/29/13 - 05/13/13	< 0.008
05/13/13 - 05/28/13	< 0.010
05/28/13 - 06/10/13	< 0.014
06/10/13 - 06/24/13	< 0.016
06/24/13 - 07/08/13	< 0.015
07/08/13 - 07/22/13	< 0.006
07/22/13 - 08/06/13	< 0.008
08/06/13 - 08/19/13	< 0.013
08/19/13 - 09/03/13	< 0.005
09/03/13 - 09/17/13	< 0.014
09/17/13 - 10/01/13	< 0.021
10/01/13 - 10/15/13	< 0.006
10/15/13 - 10/29/13	< 0.011
10/29/13 - 11/12/13	< 0.005
11/12/13 - 11/25/13	< 0.015
11/25/13 - 12/11/13	< 0.005
12/11/13 - 12/20/13	< 0.015
12/20/13 - 01/07/14	< 0.006

Results in picoCuries per cubic meter (pCi/m³)

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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</u> <u>(pCi/m³)</u>
01/07/13	-	01/22/13	< 0.005
01/22/13	-	02/04/13	< 0.012
02/04/13	-	02/19/13	< 0.009
02/19/13	-	03/04/13	< 0.008
03/04/13	-	03/19/13	< 0.008
03/19/13	-	04/02/13	< 0.006
04/02/13	-	04/15/13	< 0.010
04/15/13	-	04/29/13	< 0.010
04/29/13	-	05/13/13	< 0.008
05/13/13	-	05/28/13	< 0.007
05/28/13	-	06/10/13	< 0.011
06/10/13	-	06/24/13	< 0.012
06/24/13	-	07/08/13	< 0.014
07/08/13	-	07/22/13	< 0.005
07/22/13	-	08/06/13	< 0.007
08/06/13	-	08/19/13	< 0.009
08/19/13	-	09/03/13	< 0.006
09/03/13	-	09/17/13	< 0.013
09/17/13	-	10/01/13	< 0.010
10/01/13	-	10/15/13	< 0.006
10/15/13	-	10/29/13	< 0.011
10/29/13	-	11/12/13	< 0.012
11/12/13	-	11/25/13	< 0.012
11/25/13	-	12/11/13	< 0.006
12/11/13	-	12/20/13	< 0.009
12/20/13	-	01/07/14	< 0.006

Results in picoCuries per cubic meter (pCi/m³)

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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>
01/07/13 - 01/22/13	< 0.005
01/22/13 - 02/04/13	< 0.010
02/04/13 - 02/19/13	< 0.014
02/19/13 - 03/04/13	< 0.007
03/04/13 - 03/19/13	< 0.008
03/19/13 - 04/02/13	< 0.009
04/02/13 - 04/15/13	< 0.010
04/15/13 - 04/29/13	< 0.010
04/29/13 - 05/13/13	< 0.007
05/13/13 - 05/28/13	< 0.016
05/28/13 - 06/10/13	< 0.006
06/10/13 - 06/24/13	< 0.008
06/24/13 - 07/08/13	< 0.011
07/08/13 - 07/22/13	< 0.013
07/22/13 - 08/06/13	< 0.017
08/06/13 - 08/19/13	< 0.008
08/19/13 - 09/03/13	< 0.010
09/03/13 - 09/17/13	< 0.017
09/17/13 - 10/01/13	< 0.008
10/01/13 - 10/15/13	< 0.017
10/15/13 - 10/29/13	< 0.011
10/29/13 - 11/12/13	< 0.005
11/12/13 - 11/25/13	< 0.009
11/25/13 - 12/11/13	< 0.008
12/11/13 - 12/20/13	< 0.008
12/20/13 - 01/07/14	< 0.004

Results in picoCuries per cubic meter (pCi/m³)

**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>
01/02/13 - 01/09/13	< 0.012
01/09/13 - 01/16/13	< 0.019
01/16/13 - 01/23/13	< 0.018
01/23/13 - 01/30/13	< 0.025
01/30/13 - 02/06/13	< 0.024
02/06/13 - 02/13/13	< 0.044
02/13/13 - 02/20/13	< 0.023
02/20/13 - 02/27/13	< 0.019
02/27/13 - 03/05/13	< 0.029
03/05/13 - 03/12/13	< 0.023
03/12/13 - 03/20/13	< 0.017
03/20/13 - 03/27/13	< 0.036
03/27/13 - 04/03/13	< 0.017
04/03/13 - 04/10/13	< 0.010
04/10/13 - 04/17/13	< 0.026
04/17/13 - 04/24/13	< 0.061
04/24/13 - 05/01/13	< 0.021
05/01/13 - 05/08/13	< 0.024
05/08/13 - 05/15/13	< 0.009
05/15/13 - 05/21/13	< 0.028
05/21/13 - 05/29/13	< 0.042
05/29/13 - 06/05/13	< 0.024
06/05/13 - 06/12/13	< 0.034
06/12/13 - 06/19/13	< 0.022
06/19/13 - 06/26/13	< 0.013
06/26/13 - 07/02/13	< 0.052

Results in picoCuries per cubic meter (pCi/m³)

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

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**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>
07/02/13 - 07/10/13	< 0.050
07/10/13 - 07/17/13	< 0.037
07/17/13 - 07/25/13	< 0.034
07/25/13 - 07/31/13	< 0.027
07/31/13 - 08/07/13	< 0.041
08/07/13 - 08/14/13	< 0.013
08/14/13 - 08/21/13	< 0.026
08/21/13 - 08/28/13	< 0.034
08/28/13 - 09/04/13	< 0.014
09/04/13 - 09/11/13	< 0.031
09/11/13 - 09/18/13	< 0.028
09/18/13 - 09/25/13	< 0.023
09/25/13 - 10/02/13	< 0.020
10/02/13 - 10/09/13	< 0.016
10/09/13 - 10/16/13	< 0.024
10/16/13 - 10/23/13	< 0.026
10/23/13 - 10/30/13	< 0.028
10/30/13 - 11/06/13	< 0.053
11/06/13 - 11/13/13	< 0.040
11/13/13 - 11/20/13	< 0.016
11/20/13 - 11/26/13	< 0.020
11/26/13 - 12/04/13	< 0.028
12/04/13 - 12/12/13	< 0.020
12/12/13 - 12/18/13	< 0.033
12/18/13 - 12/26/13	< 0.021
12/26/13 - 01/02/14	< 0.020

Results in picoCuries per cubic meter (pCi/m³)

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

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

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

<u>Collection Period</u>			<u>I-131</u> <u>(pCi/m³)</u>
01/07/13	-	01/22/13	< 0.006
01/22/13	-	02/04/13	< 0.014
02/04/13	-	02/19/13	< 0.009
02/19/13	-	03/04/13	< 0.005
03/04/13	-	03/19/13	< 0.009
03/19/13	-	04/02/13	< 0.017
04/02/13	-	04/15/13	< 0.016
04/15/13	-	04/29/13	< 0.009
04/29/13	-	05/13/13	< 0.009
05/13/13	-	05/28/13	< 0.007
05/28/13	-	06/10/13	< 0.012
06/10/13	-	06/24/13	< 0.009
06/24/13	-	07/08/13	< 0.014
07/08/13	-	07/22/13	< 0.005
07/22/13	-	08/06/13	< 0.009
08/06/13	-	08/19/13	< 0.014
08/19/13	-	09/03/13	< 0.005
09/03/13	-	09/17/13	< 0.010
09/17/13	-	10/01/13	< 0.014
10/01/13	-	10/15/13	< 0.014
10/15/13	-	10/29/13	< 0.012
10/29/13	-	11/12/13	< 0.005
11/12/13	-	11/25/13	< 0.012
11/25/13	-	12/11/13	< 0.004
12/11/13	-	12/20/13	< 0.016
12/20/13	-	01/07/14	< 0.004

Results in picoCuries per cubic meter (pCi/m³)

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

Fort Elfsborg Road (AIAI01)

<u>Collection Period</u>			<u>I-131</u> <u>(pCi/m³)</u>
01/07/13	-	01/22/13	< 0.007
01/22/13	-	02/04/13	< 0.020
02/04/13	-	02/19/13	< 0.012
02/19/13	-	03/04/13	< 0.010
03/04/13	-	03/19/13	< 0.011
03/19/13	-	04/02/13	< 0.010
04/02/13	-	04/15/13	< 0.020
04/15/13	-	04/29/13	< 0.012
04/29/13	-	05/14/13	< 0.008
05/14/13	-	05/28/13	< 0.010
05/28/13	-	06/10/13	< 0.007
06/10/13	-	06/24/13	< 0.009
06/24/13	-	07/08/13	< 0.009
07/08/13	-	07/22/13	< 0.009
07/22/13	-	08/06/13	< 0.012
08/06/13	-	08/19/13	< 0.008
08/19/13	-	09/03/13	< 0.007
09/03/13	-	09/17/13	< 0.009
09/17/13	-	10/01/13	< 0.006
10/01/13	-	10/15/13	< 0.016
10/15/13	-	10/29/13	< 0.007
10/29/13	-	11/12/13	< 0.007
11/12/13	-	11/25/13	< 0.009
11/25/13	-	12/11/13	< 0.005
12/11/13	-	12/20/13	< 0.019
12/20/13	-	01/07/14	< 0.005

Results in picoCuries per cubic meter (pCi/m³)

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

Plant Access Road (AIAI02)

<u>Collection Period</u>		<u>I-131</u> <u>(pCi/m³)</u>
01/07/13	- 01/22/13	< 0.006
01/22/13	- 02/04/13	< 0.011
02/04/13	- 02/19/13	< 0.009
02/19/13	- 03/04/13	< 0.011
03/04/13	- 03/19/13	< 0.013
03/19/13	- 04/02/13	< 0.010
04/02/13	- 04/15/13	< 0.014
04/15/13	- 04/29/13	< 0.013
04/29/13	- 05/14/13	< 0.009
05/14/13	- 05/28/13	< 0.010
05/28/13	- 06/10/13	< 0.003
06/10/13	- 06/24/13	< 0.007
06/24/13	- 07/08/13	< 0.015
07/08/13	- 07/22/13	< 0.007
07/22/13	- 08/06/13	< 0.008
08/06/13	- 08/19/13	< 0.008
08/19/13	- 09/03/13	< 0.005
09/03/13	- 09/17/13	< 0.012
09/17/13	- 10/01/13	< 0.010
10/01/13	- 10/15/13	< 0.009
10/15/13	- 10/29/13	< 0.010
10/29/13	- 11/12/13	< 0.005
11/12/13	- 11/25/13	< 0.011
11/25/13	- 12/11/13	< 0.004
12/11/13	- 12/20/13	< 0.014
12/20/13	- 01/07/14	< 0.006

Results in picoCuries per cubic meter (pCi/m³)

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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</u> <u>(pCi/m³)</u>
01/07/13	-	01/22/13	< 0.007
01/22/13	-	02/04/13	< 0.008
02/04/13	-	02/19/13	< 0.010
02/19/13	-	03/04/13	< 0.007
03/04/13	-	03/19/13	< 0.007
03/19/13	-	04/02/13	< 0.008
04/02/13	-	04/15/13	< 0.012
04/15/13	-	04/29/13	< 0.013
04/29/13	-	05/14/13	< 0.008
05/14/13	-	05/28/13	< 0.011
05/28/13	-	06/10/13	< 0.007
06/10/13	-	06/24/13	< 0.011
06/24/13	-	07/08/13	< 0.016
07/08/13	-	07/22/13	< 0.007
07/22/13	-	08/06/13	< 0.009
08/06/13	-	08/19/13	< 0.009
08/19/13	-	09/03/13	< 0.006
09/03/13	-	09/17/13	< 0.023
09/17/13	-	10/01/13	< 0.008
10/01/13	-	10/15/13	< 0.009
10/15/13	-	10/29/13	< 0.010
10/29/13	-	11/12/13	< 0.004
11/12/13	-	11/25/13	< 0.010
11/25/13	-	12/11/13	< 0.006
12/11/13	-	12/20/13	< 0.009
12/20/13	-	01/07/14	< 0.005

Results in picoCuries per cubic meter (pCi/m³)

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**BNE Background Locations
Concentrations of Gross Beta in Bi-Weekly Air Particulate Samples**

BNE Office (COAP01)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
01/07/13 - 01/22/13	0.035 ± 0.003
01/22/13 - 02/04/13	0.043 ± 0.004
02/04/13 - 02/19/13	0.039 ± 0.003
02/19/13 - 03/04/13	0.020 ± 0.002
03/04/13 - 03/19/13	0.021 ± 0.002
03/19/13 - 04/02/13	0.020 ± 0.002
04/02/13 - 04/15/13	0.029 ± 0.003
04/15/13 - 04/29/13	0.029 ± 0.003
04/29/13 - 05/14/13	0.023 ± 0.002
05/14/13 - 05/28/13	0.027 ± 0.002
05/28/13 - 06/10/13	0.027 ± 0.003
06/10/13 - 06/24/13	0.025 ± 0.002
06/24/13 - 07/08/13	0.023 ± 0.002
07/08/13 - 07/22/13	0.029 ± 0.003
07/22/13 - 08/06/13	0.029 ± 0.003
08/06/13 - 08/19/13	0.029 ± 0.003
08/19/13 - 09/03/13	0.036 ± 0.003
09/03/13 - 09/17/13	0.034 ± 0.003
09/17/13 - 10/01/13	0.024 ± 0.002
10/01/13 - 10/15/13	0.046 ± 0.003
10/15/13 - 10/29/13	0.026 ± 0.002
10/29/13 - 11/12/13	0.029 ± 0.002
11/12/13 - 11/25/13	0.024 ± 0.002
11/25/13 - 12/11/13	0.038 ± 0.003
12/11/13 - 12/20/13	0.043 ± 0.004
12/20/13 - 01/07/14	0.028 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

**BNE Background Locations
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>
01/07/13 - 01/22/13	0.037 ± 0.003
01/22/13 - 02/04/13	0.036 ± 0.003
02/04/13 - 02/19/13	0.033 ± 0.003
02/19/13 - 03/04/13	0.015 ± 0.002
03/04/13 - 03/19/13	0.022 ± 0.002
03/19/13 - 04/02/13	0.019 ± 0.002
04/02/13 - 04/15/13	0.026 ± 0.003
04/15/13 - 04/29/13	0.029 ± 0.003
04/29/13 - 05/13/13	0.021 ± 0.002
05/13/13 - 05/28/13	0.028 ± 0.003
05/28/13 - 06/10/13	0.022 ± 0.002
06/10/13 - 06/24/13	0.022 ± 0.002
06/24/13 - 07/08/13	0.023 ± 0.002
07/08/13 - 07/22/13	0.033 ± 0.003
07/22/13 - 08/06/13	0.028 ± 0.002
08/06/13 - 08/19/13	0.028 ± 0.003
08/19/13 - 09/03/13	0.037 ± 0.003
09/03/13 - 09/17/13	0.035 ± 0.003
09/17/13 - 10/01/13	0.023 ± 0.002
10/01/13 - 10/15/13	0.045 ± 0.003
10/15/13 - 10/29/13	0.027 ± 0.002
10/29/13 - 11/12/13	0.032 ± 0.002
11/12/13 - 11/25/13	0.024 ± 0.002
11/25/13 - 12/11/13	0.031 ± 0.002
12/11/13 - 12/20/13	0.043 ± 0.004
12/20/13 - 01/07/14	0.023 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.040 ± 0.003
01/22/13 - 02/04/13	0.041 ± 0.003
02/04/13 - 02/19/13	0.035 ± 0.003
02/19/13 - 03/04/13	0.019 ± 0.002
03/04/13 - 03/19/13	0.021 ± 0.002
03/19/13 - 04/02/13	0.021 ± 0.002
04/02/13 - 04/15/13	0.028 ± 0.003
04/15/13 - 04/29/13	0.028 ± 0.003
04/29/13 - 05/13/13	0.021 ± 0.002
05/13/13 - 05/28/13	0.024 ± 0.002
05/28/13 - 06/10/13	0.025 ± 0.003
06/10/13 - 06/24/13	0.022 ± 0.002
06/24/13 - 07/08/13	0.022 ± 0.002
07/08/13 - 07/22/13	0.030 ± 0.003
07/22/13 - 08/06/13	0.022 ± 0.002
08/06/13 - 08/19/13	0.031 ± 0.003
08/19/13 - 09/03/13	0.036 ± 0.003
09/03/13 - 09/17/13	0.033 ± 0.003
09/17/13 - 10/01/13	0.020 ± 0.002
10/01/13 - 10/15/13	0.046 ± 0.003
10/15/13 - 10/29/13	0.026 ± 0.002
10/29/13 - 11/12/13	0.027 ± 0.002
11/12/13 - 11/25/13	0.027 ± 0.002
11/25/13 - 12/11/13	0.033 ± 0.002
12/11/13 - 12/20/13	0.043 ± 0.004
12/20/13 - 01/07/14	0.025 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.038 ± 0.003
01/22/13 - 02/04/13	0.043 ± 0.004
02/04/13 - 02/19/13	0.041 ± 0.003
02/19/13 - 03/04/13	0.019 ± 0.002
03/04/13 - 03/19/13	0.022 ± 0.002
03/19/13 - 04/02/13	0.020 ± 0.002
04/02/13 - 04/15/13	0.030 ± 0.003
04/15/13 - 04/29/13	0.030 ± 0.003
04/29/13 - 05/13/13	0.020 ± 0.002
05/13/13 - 05/28/13	0.026 ± 0.002
05/28/13 - 06/10/13	0.024 ± 0.003
06/10/13 - 06/24/13	0.024 ± 0.002
06/24/13 - 07/08/13	0.023 ± 0.002
07/08/13 - 07/22/13	0.030 ± 0.003
07/22/13 - 08/06/13	0.023 ± 0.002
08/06/13 - 08/19/13	0.030 ± 0.003
08/19/13 - 09/03/13	0.039 ± 0.003
09/03/13 - 09/17/13	0.041 ± 0.004
09/17/13 - 10/01/13	0.021 ± 0.002
10/01/13 - 10/15/13	0.041 ± 0.003
10/15/13 - 10/29/13	0.031 ± 0.003
10/29/13 - 11/12/13	0.029 ± 0.003
11/12/13 - 11/25/13	0.026 ± 0.002
11/25/13 - 12/11/13	0.030 ± 0.002
12/11/13 - 12/20/13	0.043 ± 0.004
12/20/13 - 01/07/14	0.027 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.037 ± 0.003
01/22/13 - 02/04/13	0.041 ± 0.003
02/04/13 - 02/19/13	0.034 ± 0.003
02/19/13 - 03/04/13	0.018 ± 0.002
03/04/13 - 03/19/13	0.021 ± 0.002
03/19/13 - 04/02/13	0.021 ± 0.002
04/02/13 - 04/15/13	0.030 ± 0.003
04/15/13 - 04/29/13	0.031 ± 0.003
04/29/13 - 05/13/13	0.021 ± 0.002
05/13/13 - 05/28/13	0.025 ± 0.002
05/28/13 - 06/10/13	0.025 ± 0.003
06/10/13 - 06/24/13	0.026 ± 0.002
06/24/13 - 07/08/13	0.022 ± 0.002
07/08/13 - 07/22/13	0.033 ± 0.003
07/22/13 - 08/06/13	0.025 ± 0.002
08/06/13 - 08/19/13	0.027 ± 0.003
08/19/13 - 09/03/13	0.037 ± 0.003
09/03/13 - 09/17/13	0.034 ± 0.003
09/17/13 - 10/01/13	0.018 ± 0.002
10/01/13 - 10/15/13	0.043 ± 0.003
10/15/13 - 10/29/13	0.029 ± 0.002
10/29/13 - 11/12/13	0.028 ± 0.002
11/12/13 - 11/25/13	0.024 ± 0.002
11/25/13 - 12/11/13	0.036 ± 0.003
12/11/13 - 12/20/13	0.041 ± 0.004
12/20/13 - 01/07/14	0.026 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.041 ± 0.003
01/22/13 - 02/04/13	0.036 ± 0.003
02/04/13 - 02/19/13	0.036 ± 0.003
02/19/13 - 03/04/13	0.021 ± 0.002
03/04/13 - 03/19/13	0.021 ± 0.002
03/19/13 - 04/02/13	0.021 ± 0.002
04/02/13 - 04/15/13	0.034 ± 0.003
04/15/13 - 04/29/13	0.029 ± 0.003
04/29/13 - 05/13/13	0.020 ± 0.002
05/13/13 - 05/28/13	0.023 ± 0.002
05/28/13 - 06/10/13	0.023 ± 0.002
06/10/13 - 06/24/13	0.028 ± 0.003
06/24/13 - 07/08/13	0.025 ± 0.003
07/08/13 - 07/22/13	0.032 ± 0.003
07/22/13 - 08/06/13	0.026 ± 0.002
08/06/13 - 08/19/13	0.026 ± 0.003
08/19/13 - 09/03/13	0.036 ± 0.003
09/03/13 - 09/17/13	0.036 ± 0.003
09/17/13 - 10/01/13	0.022 ± 0.002
10/01/13 - 10/15/13	0.041 ± 0.003
10/15/13 - 10/29/13	0.026 ± 0.002
10/29/13 - 11/12/13	0.026 ± 0.002
11/12/13 - 11/25/13	0.024 ± 0.002
11/25/13 - 12/11/13	0.033 ± 0.003
12/11/13 - 12/20/13	0.041 ± 0.004
12/20/13 - 01/07/14	0.026 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.040 ± 0.003
01/22/13 - 02/04/13	0.039 ± 0.003
02/04/13 - 02/19/13	0.034 ± 0.003
02/19/13 - 03/04/13	0.018 ± 0.002
03/04/13 - 03/19/13	0.020 ± 0.002
03/19/13 - 04/02/13	0.019 ± 0.002
04/02/13 - 04/15/13	0.033 ± 0.003
04/15/13 - 04/29/13	0.029 ± 0.003
04/29/13 - 05/13/13	0.022 ± 0.002
05/13/13 - 05/28/13	0.026 ± 0.002
05/28/13 - 06/10/13	0.024 ± 0.003
06/10/13 - 06/24/13	0.025 ± 0.002
06/24/13 - 07/08/13	0.021 ± 0.002
07/08/13 - 07/22/13	0.030 ± 0.003
07/22/13 - 08/06/13	0.024 ± 0.002
08/06/13 - 08/19/13	0.027 ± 0.003
08/19/13 - 09/03/13	0.035 ± 0.003
09/03/13 - 09/17/13	0.032 ± 0.003
09/17/13 - 10/01/13	0.020 ± 0.002
10/01/13 - 10/15/13	0.040 ± 0.003
10/15/13 - 10/29/13	0.027 ± 0.002
10/29/13 - 11/12/13	0.028 ± 0.002
11/12/13 - 11/25/13	0.025 ± 0.002
11/25/13 - 12/11/13	0.033 ± 0.002
12/11/13 - 12/20/13	0.042 ± 0.004
12/20/13 - 01/07/14	0.026 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/02/13 - 01/09/13	0.084 ± 0.009
01/09/13 - 01/16/13	0.042 ± 0.006
01/16/13 - 01/23/13	0.038 ± 0.006
01/23/13 - 01/30/13	0.042 ± 0.006
01/30/13 - 02/06/13	0.046 ± 0.007
02/06/13 - 02/13/13	0.031 ± 0.005
02/13/13 - 02/20/13	0.041 ± 0.006
02/20/13 - 02/27/13	0.025 ± 0.005
02/27/13 - 03/05/13	0.024 ± 0.005
03/05/13 - 03/12/13	0.020 ± 0.004
03/12/13 - 03/20/13	0.045 ± 0.006
03/20/13 - 03/27/13	0.020 ± 0.004
03/27/13 - 04/03/13	0.030 ± 0.005
04/03/13 - 04/10/13	0.049 ± 0.007
04/10/13 - 04/17/13	0.024 ± 0.005
04/17/13 - 04/24/13	0.032 ± 0.006
04/24/13 - 05/01/13	0.045 ± 0.006
05/01/13 - 05/08/13	0.015 ± 0.004
05/08/13 - 05/15/13	0.032 ± 0.005
05/15/13 - 05/21/13	0.037 ± 0.006
05/21/13 - 05/29/13	0.029 ± 0.005
05/29/13 - 06/05/13	0.033 ± 0.006
06/05/12 - 06/12/13	0.024 ± 0.005
06/12/13 - 06/19/13	0.028 ± 0.005
06/19/13 - 06/26/13	0.025 ± 0.005
06/26/13 - 07/02/13	0.033 ± 0.006

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
07/02/13 - 07/10/13	0.023 ± 0.004
07/10/13 - 07/17/13	0.018 ± 0.004
07/17/13 - 07/25/13	0.037 ± 0.006
07/25/13 - 07/31/13	0.022 ± 0.005
07/31/13 - 08/07/13	0.041 ± 0.006
08/07/13 - 08/14/13	0.044 ± 0.006
08/14/13 - 08/21/13	0.031 ± 0.005
08/21/13 - 08/28/13	0.040 ± 0.006
08/28/13 - 09/04/13	0.047 ± 0.007
09/04/13 - 09/11/13	0.044 ± 0.006
09/11/13 - 09/18/13	0.046 ± 0.007
09/18/13 - 09/25/13	0.024 ± 0.005
09/25/13 - 10/02/13	0.028 ± 0.005
10/02/13 - 10/09/13	0.067 ± 0.008
10/09/13 - 10/16/13	0.031 ± 0.005
10/16/13 - 10/23/13	0.032 ± 0.005
10/23/13 - 10/30/13	0.029 ± 0.005
10/30/13 - 11/06/13	0.051 ± 0.006
11/06/13 - 11/13/13	0.028 ± 0.005
11/13/13 - 11/20/13	0.036 ± 0.005
11/20/13 - 11/26/13	0.024 ± 0.005
11/26/13 - 12/04/13	0.035 ± 0.005
12/04/13 - 12/12/13	0.049 ± 0.006
12/12/13 - 12/18/13	0.050 ± 0.007
12/18/13 - 12/26/13	0.028 ± 0.004
12/26/13 - 01/02/14	0.037 ± 0.005

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

Access Road to Finninger Farm Property (ENE Sector) (OCAP07)

<u>Collection Period</u>	<u>Particulate Gross Beta (pCi/m³)</u>
01/07/13 - 01/22/13	0.041 ± 0.003
01/22/13 - 02/04/13	0.037 ± 0.003
02/04/13 - 02/19/13	0.037 ± 0.003
02/19/13 - 03/04/13	0.024 ± 0.003
03/04/13 - 03/19/13	0.022 ± 0.002
03/19/13 - 04/02/13	0.021 ± 0.002
04/02/13 - 04/15/13	0.037 ± 0.003
04/15/13 - 04/29/13	0.030 ± 0.003
04/29/13 - 05/13/13	0.021 ± 0.002
05/13/13 - 05/28/13	0.026 ± 0.002
05/28/13 - 06/10/13	0.025 ± 0.003
06/10/13 - 06/24/13	0.028 ± 0.003
06/24/13 - 07/08/13	0.012 ± 0.002
07/08/13 - 07/22/13	0.029 ± 0.003
07/22/13 - 08/06/13	0.026 ± 0.002
08/06/13 - 08/19/13	0.028 ± 0.003
08/19/13 - 09/03/13	0.035 ± 0.003
09/03/13 - 09/17/13	0.036 ± 0.003
09/17/13 - 10/01/13	0.020 ± 0.002
10/01/13 - 10/15/13	0.044 ± 0.003
10/15/13 - 10/29/13	0.027 ± 0.002
10/29/13 - 11/12/13	0.030 ± 0.002
11/12/13 - 11/25/13	0.025 ± 0.002
11/25/13 - 12/11/13	0.035 ± 0.003
12/11/13 - 12/20/13	0.044 ± 0.004
12/20/13 - 01/07/14	0.024 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.045 ± 0.003
01/22/13 - 02/04/13	0.050 ± 0.004
02/04/13 - 02/19/13	0.038 ± 0.003
02/19/13 - 03/04/13	0.016 ± 0.002
03/04/13 - 03/19/13	0.023 ± 0.002
03/19/13 - 04/02/13	0.022 ± 0.002
04/02/13 - 04/15/13	0.036 ± 0.003
04/15/13 - 04/29/13	0.033 ± 0.003
04/29/13 - 05/14/13	0.025 ± 0.003
05/14/13 - 05/28/13	0.031 ± 0.003
05/28/13 - 06/10/13	0.029 ± 0.003
06/10/13 - 06/24/13	0.023 ± 0.002
06/24/13 - 07/08/13	0.023 ± 0.002
07/08/13 - 07/22/13	0.032 ± 0.003
07/22/13 - 08/06/13	0.029 ± 0.003
08/06/13 - 08/19/13	0.030 ± 0.003
08/19/13 - 09/03/13	0.041 ± 0.003
09/03/13 - 09/17/13	0.031 ± 0.003
09/17/13 - 10/01/13	0.026 ± 0.003
10/01/13 - 10/15/13	0.046 ± 0.003
10/15/13 - 10/29/13	0.031 ± 0.003
10/29/13 - 11/12/13	0.031 ± 0.003
11/12/13 - 11/25/13	0.030 ± 0.003
11/25/13 - 12/11/13	0.033 ± 0.003
12/11/13 - 12/20/13	0.047 ± 0.004
12/20/13 - 01/07/14	0.028 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.039 ± 0.003
01/22/13 - 02/04/13	0.043 ± 0.004
02/04/13 - 02/19/13	0.041 ± 0.003
02/19/13 - 03/04/13	0.019 ± 0.002
03/04/13 - 03/19/13	0.026 ± 0.003
03/19/13 - 04/02/13	0.024 ± 0.002
04/02/13 - 04/15/13	0.035 ± 0.003
04/15/13 - 04/29/13	0.031 ± 0.003
04/29/13 - 05/14/13	0.029 ± 0.003
05/14/13 - 05/28/13	0.026 ± 0.003
05/28/13 - 06/10/13	0.025 ± 0.003
06/10/13 - 06/24/13	0.029 ± 0.003
06/24/13 - 07/08/13	0.023 ± 0.002
07/08/13 - 07/22/13	0.034 ± 0.003
07/22/13 - 08/06/13	0.028 ± 0.003
08/06/13 - 08/19/13	0.028 ± 0.003
08/19/13 - 09/03/13	0.040 ± 0.003
09/03/13 - 09/17/13	0.037 ± 0.003
09/17/13 - 10/01/13	0.025 ± 0.002
10/01/13 - 10/15/13	0.046 ± 0.003
10/15/13 - 10/29/13	0.030 ± 0.003
10/29/13 - 11/12/13	0.030 ± 0.003
11/12/13 - 11/25/13	0.027 ± 0.002
11/25/13 - 12/11/13	0.034 ± 0.003
12/11/13 - 12/20/13	0.044 ± 0.004
12/20/13 - 01/07/14	0.028 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/07/13 - 01/22/13	0.040 ± 0.003
01/22/13 - 02/04/13	0.046 ± 0.004
02/04/13 - 02/19/13	0.039 ± 0.003
02/19/13 - 03/04/13	0.022 ± 0.002
03/04/13 - 03/19/13	0.023 ± 0.002
03/19/13 - 04/02/13	0.022 ± 0.002
04/02/13 - 04/15/13	0.031 ± 0.003
04/15/13 - 04/29/13	0.031 ± 0.003
04/29/13 - 05/14/13	0.024 ± 0.002
05/14/13 - 05/28/13	0.028 ± 0.003
05/28/13 - 06/10/13	0.026 ± 0.003
06/10/13 - 06/24/13	0.025 ± 0.002
06/24/13 - 07/08/13	0.023 ± 0.002
07/08/13 - 07/22/13	0.035 ± 0.003
07/22/13 - 08/06/13	0.028 ± 0.002
08/06/13 - 08/19/13	0.026 ± 0.002
08/19/13 - 09/03/13	0.036 ± 0.003
09/03/13 - 09/17/13	0.036 ± 0.003
09/17/13 - 10/01/13	0.023 ± 0.002
10/01/13 - 10/15/13	0.042 ± 0.003
10/15/13 - 10/29/13	0.027 ± 0.002
10/29/13 - 11/12/13	0.030 ± 0.002
11/12/13 - 11/25/13	0.021 ± 0.002
11/25/13 - 12/11/13	0.030 ± 0.002
12/11/13 - 12/20/13	0.046 ± 0.004
12/20/13 - 01/07/14	0.026 ± 0.002

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
12/21/12	- 04/02/13	< 0.2	< 0.2	< 0.2	83 ± 10	< 3.4	< 1.6
04/02/13	- 06/24/13	< 0.3	< 0.5	< 0.5	130 ± 28	< 60.2	< 17.6
06/24/13	- 10/01/13	< 0.7	< 0.6	< 0.5	88 ± 18	< 40.2	< 6.9
10/01/13	- 01/07/14	< 0.3	< 0.4	< 0.3	103 ± 16	< 24.4	< 13.3

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>
12/21/12	- 04/02/13	< 0.2	< 0.2	< 0.2	77 ± 9	< 3.1	< 0.9
04/02/13	- 06/24/13	< 1.1	< 0.8	< 1.0	118 ± 35	< 65.1	< 19.1
06/24/13	- 10/01/13	< 0.3	< 0.3	< 0.2	109 ± 15	< 28.7	< 6.1
10/01/13	- 01/07/14	< 0.2	< 0.4	< 0.3	96 ± 15	< 25.0	< 16.1

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
12/21/12 - 04/02/13	< 0.2	< 0.3	< 0.2	79 ± 10	< 4.0	< 1.3
04/02/13 - 06/24/13	< 0.6	< 0.7	< 0.6	120 ± 26	< 58.9	< 20.1
06/24/13 - 10/01/13	< 0.3	< 0.3	< 0.3	98 ± 15	< 37.2	< 10.1
10/01/13 - 01/07/14	< 0.5	< 0.5	< 0.3	101 ± 16	< 24.6	< 18.0

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>
12/21/12 - 04/02/13	< 0.4	< 0.3	< 0.2	92 ± 12	< 5.8	< 2.1
04/02/13 - 06/24/13	< 0.5	< 0.5	< 0.5	121 ± 24	< 80.2	< 17.8
06/24/13 - 10/01/13	< 0.5	< 0.4	< 0.4	100 ± 15	< 56.1	< 11.6
10/01/13 - 01/07/14	< 0.9	< 0.8	< 0.9	86 ± 20	< 25.5	< 18.9

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>
12/21/12 - 04/02/13	< 0.2	< 0.2	< 0.2	80 ± 10	< 3.8	< 0.8
04/02/13 - 06/24/13	< 0.7	< 0.7	< 0.6	134 ± 27	< 52.6	< 11.0
06/24/13 - 10/01/13	< 0.3	< 0.2	< 0.3	105 ± 14	< 30.3	< 6.7
10/01/13 - 01/07/14	< 0.4	< 0.5	< 0.4	89 ± 16	< 24.5	< 13.6

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>
12/21/12 - 04/02/13	< 0.2	< 0.2	< 0.2	83 ± 10	< 4.6	< 1.5
04/02/13 - 06/24/13	< 0.5	< 0.6	< 0.4	123 ± 28	< 36.0	< 17.8
06/24/13 - 10/01/13	< 0.2	< 0.3	< 0.2	104 ± 15	< 39.1	< 5.7
10/01/13 - 01/07/14	< 0.4	< 0.4	< 0.4	105 ± 16	< 37.0	< 14.8

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

**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>
12/21/12 - 04/02/13	< 0.2	< 0.2	< 0.2	79 ± 10	< 3.2	< 0.9
04/02/13 - 06/24/13	< 0.4	< 0.5	< 0.4	110 ± 23	< 46.6	< 15.5
06/24/13 - 10/01/13	< 0.3	< 0.3	< 0.3	115 ± 16	< 31.8	< 33.9
10/01/13 - 01/07/14	< 0.4	< 0.5	< 0.3	95 ± 15	< 23.4	< 13.5

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>
01/02/13 - 04/03/13	< 0.5	< 0.6	< 0.6	103 ± 16	< 10.2	< 2.2
04/03/13 - 06/26/13	< 2.1	< 1.7	< 1.8	78 ± 60	< 117.0	< 35.8
06/26/13 - 10/02/13	< 0.6	< 0.6	< 0.5	107 ± 18	< 84.1	< 57.1
10/02/13 - 01/02/14	< 1.3	< 1.1	< 0.7	89 ± 23	< 56.8	< 23.1

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>
12/21/12 - 04/02/13	< 0.2	< 0.2	< 0.2	75 ± 10	< 2.8	< 0.9
04/02/13 - 06/24/13	< 0.6	< 0.4	< 0.4	117 ± 26	< 48.3	< 21.7
06/24/13 - 10/01/13	< 0.3	< 0.2	< 0.3	103 ± 14	< 32.7	< 6.5
10/01/13 - 01/07/14	< 0.7	< 0.8	< 0.4	97 ± 21	< 23.9	< 12.5

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

**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>
12/21/12 - 04/02/13	< 0.5	< 0.5	< 0.4	98 ± 14	< 5.8	< 0.9
04/02/13 - 06/24/13	< 0.9	< 0.9	< 0.6	113 ± 31	< 59.0	< 15.9
06/24/13 - 10/01/13	< 0.5	< 0.4	< 0.4	104 ± 16	< 28.7	< 8.0
10/01/13 - 01/07/14	< 0.5	< 0.5	< 0.6	109 ± 16	< 29.4	< 20.0

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>
12/21/12 - 04/02/13	< 0.2	< 0.2	< 0.2	86 ± 11	< 2.8	< 0.9
04/02/13 - 06/24/13	< 0.3	< 0.6	< 0.6	120 ± 26	< 42.7	< 17.2
06/24/13 - 10/01/13	< 0.3	< 0.2	< 0.2	110 ± 15	< 36.5	< 5.9
10/01/13 - 01/07/14	< 0.5	< 0.4	< 0.3	111 ± 17	< 27.5	< 18.4

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>
12/21/12 - 04/02/13	< 0.2	< 0.2	< 0.2	87 ± 10	< 4.5	< 1.4
04/02/13 - 06/24/13	< 0.3	< 0.5	< 0.5	133 ± 27	< 64.9	< 18.0
06/24/13 - 10/01/13	< 0.3	< 0.3	< 0.2	105 ± 15	< 55.9	< 6.2
10/01/13 - 01/07/14	< 0.4	< 0.3	< 0.3	98 ± 15	< 20.9	< 9.0

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
04/08/13 - Clams	< 7	< 7	< 7	< 6	1,800 ± 221	< 80	< 72
09/30/13 - Clams	< 7	< 7	< 7	< 7	1,350 ± 198	< 144	< 244

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>
04/08/12 - Clams	< 3	< 4	< 3	< 3	2,320 ± 227	< 95	< 91
09/30/13 - Clams	< 14	< 15	< 15	< 14	1,300 ± 278	< 135	< 148

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>
04/09/13 - Clams	< 2	< 3	< 3	< 3	2,030 ± 203	< 77	< 80
10/02/13 - Clams	< 3	< 3	< 3	< 3	1,240 ± 138	< 100	< 117

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>
04/09/12 - Striped Bass	< 3	< 4	< 4	8 ± 4	3,760 ± 369	< 81	< 94
04/09/12 - Red Drum	< 3	< 4	< 4	< 3	3,650 ± 335	< 64	< 111
10/01/13 - Striped Bass	< 11	< 11	< 11	< 12	3,780 ± 404	< 190	< 208
10/01/13 - Weakfish	< 3	< 4	< 4	< 3	3,560 ± 336	< 261	< 229
10/01/13 - Red Drum	< 3	< 4	< 4	< 3	3,640 ± 344	< 341	< 326
10/01/13 - Bluefish	< 4	< 4	< 4	7 ± 4	3,820 ± 371	< 248	< 224

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>
09/30/13 - Red Drum	< 10	< 9	< 11	< 9	3,090 ± 342	< 284	< 373
09/30/13 - White Perch	< 11	< 13	< 12	< 10	3,550 ± 421	< 245	< 292
09/30/13 - Bluefish	< 9	< 9	< 10	< 8	3,290 ± 374	< 227	< 241

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

Delaware River – Near Plant Discharge Outfall Area – Salem NGS (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>
05/16/13 – Striped Bass	< 6	< 8	< 6	< 6	3,570 ± 370	< 206	< 242
09/24/13 – Catfish	< 3	< 3	< 3	< 3	2,980 ± 293	< 295	< 256
07/31/13 – Hardshell Crab	< 5	< 5	< 4	< 4	3,270 ± 314	< 272	< 374
09/01/13 – Hardshell Crab	< 4	< 4	< 4	< 4	2,850 ± 268	< 563	< 315

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>
05/16/13 – Catfish	< 4	< 5	< 4	11 ± 4	3,100 ± 295	< 168	< 249
09/24/13 – Catfish	< 4	< 4	< 4	< 4	3,490 ± 327	< 229	< 191
07/31/13 – Hardshell Crab	< 5	< 5	< 5	< 4	2,760 ± 278	< 215	< 163
09/01/13 – Hardshell Crab	< 3	< 3	< 3	< 3	2,410 ± 228	< 562	< 266

Delaware River - One Mile West of Mad Horse Creek (AIFS03)

<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>
09/23/13 – Striped Bass	< 4	< 4	< 4	< 3	3,790 ± 369	< 247	< 198

Delaware River (Hog Shoals) – 1.5 Miles WNW of Oyster Cove (AIFS04)

<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>
11/04/13 – Oyster	< 9	< 9	< 9	< 9	1,060 ± 178	< 620	< 463

Results in picocuries per kilogram – WET (pCi/kg) +/- 2 Standard Deviations total measurement uncertainty

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

**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>Mn-54</u>	<u>K-40</u>
04/08/13	< 203	< 25	< 28	< 31	< 27	< 27	14,500 ± 1,630
09/30/13	< 117	< 14	< 15	< 18	< 15	< 14	992 ± 229

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>Mn-54</u>	<u>K-40</u>
04/08/13	< 205	< 24	< 26	< 27	47 ± 18	< 24	11,900 ± 1,340
09/30/13	< 124	< 15	< 15	< 19	< 16	< 16	2,920 ± 383

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>Mn-54</u>	<u>K-40</u>
04/09/13	352 ± 154	< 22	< 26	48 ± 25	46 ± 19	< 23	18,400 ± 1,730
10/02/13	< 231	< 27	< 29	< 36	< 30	< 29	15,000 ± 1,550

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>Mn-54</u>	<u>K-40</u>
04/08/13	< 171	< 19	< 23	< 23	< 22	< 19	3,480 ± 467
09/30/13	< 235	< 27	< 29	< 35	< 31	< 28	12,200 ± 1,250

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

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
2013 Radiological Environmental Monitoring Program**

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

Delaware River Near Site Helipad (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>Mn-54</u>	<u>K-40</u>
12/16/13	< 102	< 12	< 11	< 14	< 12	< 11	4,630 ± 511

Delaware River Near Plant Discharge Outfall Area – Salem Station NGS (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>Mn-54</u>	<u>K-40</u>
06/28/13	< 222	< 27	< 24	< 31	< 26	< 24	3,660 ± 565
11/25/13	< 166	< 20	< 19	< 24	< 19	< 19	8,780 ± 916

Delaware River - Near Hope Creek NGS Cooling Tower Blow Down Discharge Line Outfall (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>Mn-54</u>	<u>K-40</u>
06/28/13	< 192	< 21	< 20	< 25	< 21	< 20	8,090 ± 826
11/25/13	< 169	< 18	< 18	< 21	< 18	< 17	5,440 ± 619

Delaware River Near 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>Mn-54</u>	<u>K-40</u>
06/28/13	< 173	< 17	< 17	< 22	< 17	< 16	7,770 ± 821
11/25/13	< 188	< 21	< 22	< 23	< 19	< 18	16,000 ± 1,510

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>Mn-54</u>	<u>K-40</u>
06/28/13	< 201	< 23	< 22	< 27	< 22	< 20	18,700 ± 1,810
11/25/13	< 176	< 19	< 16	< 20	< 17	< 14	16,400 ± 1,650

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

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
2013 Radiological Environmental Monitoring Program**

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

Oyster Creek Onsite Garden - ESE (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	07/24/13	< 9	< 11	< 10	< 10	2,750 ± 314
Collards	07/24/13	< 9	< 10	< 9	< 8	3,070 ± 353
Kale	07/24/13	< 6	< 7	< 7	< 6	2,890 ± 298
Cabbage	08/27/13	< 10	< 11	< 13	20 ± 9	2,020 ± 305
Collards	08/27/13	< 6	< 8	< 8	< 8	2,830 ± 304
Kale	08/27/13	< 8	< 9	< 8	< 8	3,040 ± 329
Cabbage	09/24/13	< 9	< 7	< 10	18 ± 10	2,600 ± 317
Collards	09/24/13	< 8	< 9	< 9	< 9	3,010 ± 332
Kale	09/24/13	< 8	< 10	< 9	< 9	3,040 ± 343
Cabbage	10/16/13	< 6	< 6	< 6	< 7	2,450 ± 273
Collards	10/16/13	< 8	< 10	< 10	< 8	2,380 ± 289
Kale	10/16/13	< 8	< 8	< 10	< 9	3,200 ± 342

Private Farm – NW (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	07/24/13	< 6	< 6	< 6	< 5	1,740 ± 201
Collards	07/24/13	< 5	< 6	< 6	< 5	3,680 ± 366
Kale	07/24/13	< 6	< 6	< 6	< 6	3,570 ± 340
Cabbage	08/27/13	< 7	< 8	< 8	< 8	2,360 ± 271
Collards	08/27/13	< 6	< 6	< 6	< 5	4,900 ± 495
Kale	08/27/13	< 5	< 6	< 6	< 5	4,080 ± 385
Cabbage	09/24/13	< 6	< 6	< 8	< 7	1,770 ± 213
Collards	09/24/13	< 5	< 6	< 5	< 5	4,530 ± 444
Kale	09/24/13	< 9	< 11	< 10	< 9	4,630 ± 500
Cabbage	10/16/13	< 5	< 5	< 6	< 6	2,080 ± 232
Collards	10/16/13	< 6	< 7	< 7	< 8	3,500 ± 352
Kale	10/16/13	< 7	< 8	< 7	< 7	3,490 ± 363

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

Oyster Creek Onsite Garden - SE (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>
Collards	08/27/13	< 9	< 11	< 11	< 11	3,810 ± 421
Cabbage	09/24/13	< 9	< 9	< 10	< 9	4,040 ± 421
Collards	09/24/13	< 9	< 10	< 9	< 9	5,330 ± 534
Collards	10/16/13	< 6	< 7	< 7	< 6	3,860 ± 388

Oyster Creek Onsite Garden - E (OCVE07)

<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>
Collards	08/27/13	< 7	< 8	< 7	53 ± 11	2,150 ± 271
Kale	08/27/13	< 12	< 14	< 13	22 ± 15	3,320 ± 407
Collards	09/24/13	< 8	< 9	< 8	79 ± 12	2,410 ± 276
Kale	09/24/13	< 8	< 10	< 10	44 ± 10	2,560 ± 302
Collards	10/16/13	< 5	< 6	< 5	49 ± 9	2,730 ± 279
Kale	10/16/13	< 7	< 8	< 8	33 ± 9	2,880 ± 312

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

Private Farm – NNE (AIVE04)

<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	07/24/13	< 4	< 5	< 5	< 4	2,140 ± 223
Peppers	07/24/13	< 6	< 6	< 6	< 5	1,760 ± 194
Tomatoes	07/24/13	< 3	< 3	< 3	< 3	1,730 ± 176

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>
Asparagus	04/28/13	< 8	< 7	< 8	< 7	2,480 ± 285
Corn	07/24/13	< 5	< 6	< 6	< 5	2,200 ± 234
Peaches	08/20/13	< 5	< 7	< 5	< 6	1,830 ± 220

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>
Tomatoes	08/19/13	< 4	< 5	< 5	< 5	2,230 ± 245
Corn	08/20/13	< 5	< 5	< 6	< 5	2,190 ± 240

Owner Controlled Area (Onsite) - 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>
Peppers	08/20/13	< 6	< 7	< 6	< 6	1,660 ± 199
Tomatoes	08/20/13	< 5	< 6	< 5	< 5	1,780 ± 206

Owner Controlled Area (Onsite) - 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	12/30/13	< 28	< 29	< 46	< 30	3,700 ± 726

Owner Controlled Area (Onsite) - 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	12/30/13	< 34	< 45	< 29	< 33	3,180 ± 738

Owner Controlled Area (Onsite) - 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	12/30/13	< 24	< 35	< 28	< 29	2,710 ± 592

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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	12/30/13	< 19	< 15	< 30	< 28	3,470 ± 666

Private Farm – NNE (AIVE18)

<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>
Peppers	07/24/13	< 5	< 6	< 6	< 6	1,230 ± 163
Tomatoes	07/24/13	< 4	< 4	< 4	< 4	1,820 ± 193

Private Farm – WNW (AIVE19)

<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>
Soybean	11/01/13	< 6	< 8	< 7	< 6	13,700 ± 1,310

Private Farm – NW (AIVE22)

<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	07/24/11	< 4	< 4	< 4	< 4	2,410 ± 236

Private Farm – NW (AIVE23)

<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>
Peaches	08/20/13	< 4	< 4	< 5	< 4	1,620 ± 177

Owner Controlled Area – SE (AIVE24)

<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	12/30/13	< 21	< 21	< 23	< 21	3,500 ± 576

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
02/11/13	< 2.04	< 0.55	1,230 ± 120	< 0.60	< 0.95
05/06/13	< 1.91	< 0.58	1,990 ± 184	< 0.94	< 0.97
09/10/13	< 2.37	< 0.78	1,350 ± 133	< 0.88	< 0.87
11/18/13	< 3.05	< 0.94	1,300 ± 136	< 0.91	< 0.93

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

Private Farm – NNE (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>
01/21/13	< 2.12	< 0.74	1,140 ± 114	< 0.60	< 0.88
02/04/13	< 2.09	< 0.65	1,890 ± 184	< 0.87	< 0.58
03/04/13	< 2.39	< 0.44	1,910 ± 184	< 0.86	< 0.93
04/08/13	< 2.34	< 0.58	1,370 ± 138	< 0.94	< 0.90
05/07/13	< 2.28	< 0.38	1,650 ± 159	< 0.74	< 0.80
06/03/13	< 3.81	< 0.45	1,020 ± 125	< 0.96	< 0.88
07/08/13	< 3.20	< 0.47	1,420 ± 156	< 0.85	< 0.91
08/19/13	< 2.56	< 0.84	1,370 ± 137	< 0.89	< 0.89
09/03/13	< 2.52	< 0.72	1,210 ± 123	< 0.89	< 0.85
10/08/13	< 2.13	< 0.68	1,370 ± 132	< 0.90	< 0.90
11/18/13	< 4.01	< 0.92	1,540 ± 174	< 0.89	< 0.93
12/02/13	< 3.19	< 0.92	1,290 ± 143	< 0.85	< 0.86

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>
01/21/13	< 2.11	< 0.50	1,590 ± 158	< 0.87	< 0.87
02/04/13	< 2.54	< 0.84	1,360 ± 143	< 0.92	< 0.86
03/04/13	< 2.49	< 0.47	1,240 ± 122	< 0.89	< 0.91
04/08/13	< 2.62	< 0.51	1,210 ± 127	< 0.90	< 0.96
05/07/13	< 1.82	< 0.37	1,510 ± 143	< 0.92	< 0.89
06/03/13	< 3.30	< 0.45	1,090 ± 132	< 0.87	< 0.60
07/08/13	< 4.06	< 0.49	1,400 ± 161	< 0.64	< 0.95
08/19/13	< 2.32	< 0.69	1,420 ± 139	< 0.89	< 0.92
09/03/13	< 2.08	< 0.59	1,330 ± 131	< 0.98	< 0.80
10/08/13	< 2.48	< 0.91	1,820 ± 173	< 0.80	< 0.89
11/18/13	< 2.43	< 0.85	1,400 ± 139	< 0.85	< 0.82
12/02/13	< 2.84	< 0.66	1,390 ± 142	< 0.82	< 0.85

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/21/13	< 2.15	< 0.43	1,430 ± 144	< 0.75	< 0.86
02/04/13	< 2.31	< 0.71	1,810 ± 169	< 0.73	< 0.95
03/04/13	< 2.14	< 0.44	1,370 ± 135	< 0.88	< 0.92
04/08/13	< 2.37	< 0.59	1,420 ± 138	< 0.93	< 0.92
05/07/13	< 9.55	< 0.43	1,730 ± 276	< 0.83	< 0.92
06/03/13	< 3.65	< 0.56	1,410 ± 161	< 0.93	< 0.89
07/08/13	< 3.48	< 0.48	1,390 ± 150	< 0.71	< 0.94
08/19/13	< 2.39	< 0.78	1,430 ± 138	< 0.87	< 0.90
09/03/13	< 2.51	< 0.61	1,240 ± 122	< 0.79	< 0.84
10/08/13	< 2.13	< 0.77	1,460 ± 139	< 0.87	< 0.86
11/18/13	< 3.43	< 0.69	1,510 ± 162	< 0.88	< 0.94
12/02/13	< 2.23	< 0.67	1,440 ± 144	< 0.79	< 0.84

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

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

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
04/08/13	< 1.58	< 2.07	< 1.66	< 1.74	< 239	< 0.89
09/30/13	< 3.59	< 4.33	< 3.45	< 3.56	< 252	< 0.92

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>
01/04/13 – 01/31/13	< 1.35	< 1.52	< 1.47	< 1.47	< 205	< 0.86
02/07/13 – 02/27/13	< 1.88	< 2.22	< 2.08	< 1.95	< 203	< 0.83
03/05/13 – 03/27/13	< 1.93	< 2.22	< 2.17	< 1.76	< 180	< 0.82
04/05/13 – 04/25/13	< 2.34	< 2.44	< 2.61	< 2.47	< 156	< 0.79
05/03/13 – 05/30/13	< 1.60	< 1.62	< 1.81	< 1.58	< 137	< 0.77
06/06/13 – 06/26/13	< 1.85	< 1.82	< 1.98	< 1.98	< 177	< 0.85
07/02/13 – 08/01/13	< 1.79	< 1.77	< 1.83	< 1.81	< 224	< 0.79
08/08/13 – 08/29/13	< 1.76	< 1.88	< 1.75	< 2.30	< 205	< 0.77
09/06/13 – 09/26/13	< 2.98	< 2.96	< 3.33	< 3.93	< 119	< 0.84
10/02/13 – 10/31/13	< 1.79	< 1.75	< 1.89	< 1.87	< 216	< 0.89
11/08/13 – 11/26/13	< 2.22	< 2.14	< 2.23	< 1.97	< 236	< 0.87
12/06/13 – 01/02/14	< 4.55	< 4.44	< 3.63	< 3.86	< 237	< 0.85

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>
04/08/13	< 2.41	< 2.64	< 2.75	< 2.72	< 235	< 0.91
09/30/13	< 2.33	< 2.47	< 2.55	< 2.20	< 248	< 0.96

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>
01/04/13 – 01/30/13	< 1.74	< 1.85	< 1.88	< 2.22	< 198	< 0.81
02/07/13 – 02/27/13	< 1.65	< 2.05	< 2.05	< 1.80	< 207	< 0.81
03/05/13 – 03/27/13	< 1.91	< 1.96	< 2.10	< 1.89	< 184	< 0.54
04/03/13 – 04/24/13	< 2.30	< 2.47	< 2.50	< 2.24	< 151	< 0.69
05/03/13 – 05/30/13	< 1.96	< 2.05	< 2.46	< 2.07	< 132	< 0.89
06/06/13 – 06/26/13	< 1.98	< 1.95	< 2.21	< 2.06	< 173	< 0.85
07/02/13 – 08/01/13	< 2.75	< 3.01	< 2.71	< 2.49	< 225	< 0.77
08/08/13 – 08/28/13	< 1.59	< 1.96	< 1.77	< 1.73	< 193	< 0.87
09/04/13 – 09/26/13	< 2.73	< 3.00	< 3.15	< 3.17	< 121	< 0.85
09/30/13 – 10/31/13	< 1.49	< 1.77	< 1.66	< 1.93	< 219	< 0.80
11/08/13 – 11/26/13	< 2.16	< 2.35	< 2.29	< 2.01	< 238	< 0.86
12/06/13 – 01/02/14	< 4.91	< 5.87	< 5.75	< 5.04	< 232	< 0.85

Results in picoCuries per Liter (pCi/L)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

Delaware River – Near Plant Discharge Outfall Area – Salem NGS (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>
01/08/13	< 1.53	< 1.92	< 1.92	< 1.50	< 285	< 0.81
02/05/13	< 1.59	< 1.80	< 1.73	< 1.75	< 232	< 0.78
03/05/13	< 1.66	< 1.68	< 1.67	< 1.70	< 149	< 0.86
04/03/13	< 1.57	< 1.71	< 1.78	< 1.65	< 239	< 0.97
05/06/13	< 2.59	< 2.83	< 2.57	< 2.71	< 236	< 0.79
06/05/13	< 1.77	< 1.82	< 1.88	< 2.20	< 271	< 0.84
07/06/13	< 2.90	< 2.51	< 3.22	< 3.28	< 253	< 6.48*
08/15/13	< 1.81	< 1.73	< 1.95	< 2.23	< 263	< 0.86
09/03/13	< 2.25	< 2.11	< 2.18	< 2.19	< 238	< 0.80
10/08/13	< 1.85	< 1.89	< 1.96	< 1.98	< 237	< 0.84
11/05/13	< 3.29	< 3.99	< 3.93	< 3.06	< 261	< 0.50
12/02/13	< 5.94	< 5.95	< 6.44	< 4.69	< 230	< 0.78

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>
01/08/13	< 1.65	< 1.89	< 1.90	< 1.75	< 276	< 0.83
02/05/13	< 1.82	< 1.78	< 1.91	< 1.73	< 240	< 0.80
03/05/13	< 1.84	< 1.86	< 1.89	< 1.82	< 155	< 0.91
04/03/13	< 1.73	< 1.87	< 1.94	< 1.77	< 239	< 0.91
05/06/13	< 1.95	< 2.45	< 2.45	< 2.43	< 238	< 0.79
06/05/13	< 1.84	< 1.83	< 2.00	< 1.90	< 265	< 0.87
07/06/13	< 2.15	< 2.27	< 2.39	< 2.50	< 240	< 5.07*
08/15/13	< 1.81	< 1.72	< 1.86	< 1.77	< 244	< 0.83
09/03/13	< 2.13	< 2.15	< 2.19	< 2.61	< 237	< 0.80
10/08/13	< 2.22	< 2.29	< 2.17	< 2.31	< 238	< 0.82
11/05/13	< 3.16	< 4.24	< 3.62	< 3.32	< 268	< 0.55
12/02/13	< 4.37	< 4.79	< 5.00	< 4.98	< 236	< 0.85

Results in picoCuries per Liter (pCi/L)

* 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 iodine-131 decay due to its short half-life (8.02 days).

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
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**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>
02/04/13	< 1.70	< 1.88	< 1.92	< 1.72	< 177	< 0.87
04/29/13	< 2.03	< 2.09	< 2.02	< 2.16	< 147	< 0.85
07/22/13	< 3.80	< 4.53	< 4.23	< 3.96	< 220	< 0.86
10/29/13	< 1.86	< 2.04	< 2.17	< 2.23	< 217	< 0.58

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>
01/28/13	< 1.92	< 2.29	< 2.15	< 2.32	< 201	< 0.73
04/29/13	< 2.18	< 2.07	< 2.55	< 2.16	< 150	< 0.84
07/22/13	< 4.29	< 5.29	< 4.48	< 5.07	< 214	< 0.88
10/29/13	< 1.92	< 2.15	< 2.08	< 2.35	< 216	< 0.58

Results in picoCuries per Liter (pCi/L)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 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>
01/28/13	< 2.46	< 2.81	< 2.63	< 2.58	< 198	< 0.73
04/29/13	< 2.39	< 2.33	< 2.54	< 2.67	< 148	< 0.87
08/06/13	< 1.57	< 1.62	< 1.62	< 1.68	< 250	< 0.85
10/29/13	< 2.93	< 3.75	< 3.63	< 3.10	< 219	< 0.71

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>
01/28/13	< 2.13	< 2.23	< 2.43	< 2.38	< 202	< 0.90
04/29/13	< 2.08	< 2.39	< 2.68	< 2.56	< 149	< 0.84
08/06/13	< 1.69	< 1.82	< 1.93	< 1.82	< 227	< 0.84
10/29/13	< 2.28	< 2.37	< 2.71	< 2.95	< 218	< 0.80

Salem Processing Center (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>
01/28/13	< 1.86	< 2.00	< 2.07	< 2.04	< 201	< 0.64
04/29/13	< 2.41	< 2.65	< 2.84	< 2.70	< 155	< 0.88
08/06/13	< 1.69	< 2.18	< 2.07	< 2.05	< 230	< 0.92
10/29/13	< 1.91	< 2.02	< 2.26	< 2.30	< 219	< 0.54

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>
01/28/13	< 1.83	< 1.81	< 2.06	< 1.93	< 199	< 0.49
04/29/13	< 2.14	< 2.35	< 2.33	< 2.31	< 143	< 0.86
08/06/13	< 1.97	< 2.18	< 2.23	< 2.05	< 231	< 0.90
10/29/13	< 2.62	< 3.04	< 3.21	< 3.25	< 220	< 0.75

Results in picoCuries per Liter (pCi/L)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

<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	14.6	2.2	13.2	2.5	14.5	0.3	13.1	0.6
CO02	Brendan T. Byrne State Forest, New Lisbon, NJ	10.3	2.7	9.7	3.3	9.5	2.5	9.4	0.7

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 90 days (a standard quarter)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

**Oyster Creek
Thermoluminescent Dosimetry Data
Quarterly Results**

<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	9.0	4.3	9.1	2.6	8.5	1.6	8.6	2.4
2	Ocean Twp. Municipal Building	9.8	2.8	9.9	4.2	10.0	2.5	9.3	3.3
3	Sewage Pumping Station, Forked River	10.5	3.0	10.3	1.9	10.8	2.7	10.3	0.9
4	Twin River Station, Forked River	9.3	3.3	9.2	6.8	8.8	2.0	8.7	3.5
5	Sewage Pumping Station, Ocean Twp.	10.1	2.9	9.9	1.2	9.6	3.5	9.5	4.0
6	Oyster Creek, Gate #2, Forked River	10.5	3.1	10.3	2.8	10.5	0.8	9.9	2.8
7	Finninger Farm, Forked River	9.2	3.7	9.0	3.1	8.5	5.3	8.7	3.0
8	Ocean Co. Memorial Cemetery, Waretown	9.5	1.8	8.4	9.0	8.5	1.3	8.9	4.1
9	Oyster Creek Building 17, Forked River	10.3	1.2	10.4	1.9	9.5	2.9	9.6	2.0
10	Sheffield & Derby Rd, Forked River	10.0	1.7	9.5	3.4	9.1	2.8	9.2	3.1
11	Lakeside Drive, Forked River	10.3	1.7	9.4	2.5	9.5	2.8	9.4	5.2
12	Forked River Game Farm, Forked River	10.0	3.3	9.6	1.0	9.3	3.3	9.1	1.2

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 90 days (a standard quarter)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

**Oyster Creek
Thermoluminescent Dosimetry Data
Quarterly Results**

<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	9.8	2.0	9.3	3.2	8.9	1.7	8.9	3.5
14	Sands Pt. Park, Dock Ave., Waretown	11.7	5.9	10.0	3.8	10.2	3.6	9.9	1.6
15	Recreation Center, Waretown	9.6	3.5	8.9	3.2	8.8	1.6	9.0	1.3
16	North Access Rd., Forked River	10.2	2.6	9.9	2.5	9.9	1.6	9.7	2.5
20	Third Avenue, Barnegat Light	8.7	2.4	8.0	2.8	8.0	2.3	8.2	2.0
21	Rose Hill Road & Barnegat Blvd	9.8	3.9	8.9	2.6	9.2	2.5	9.4	2.6
22	Bay Way & Clairmore Avenue	9.8	1.5	9.5	2.3	9.2	1.0	9.0	1.5
23	Island Beach State Park, Parking Lot A5	8.9	3.7	8.7	5.6	8.6	4.6	8.3	1.6

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 90 days (a standard quarter).

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

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

<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	11.6	4.4	10.9	2.5	10.6	2.6	10.7	4.9
2	Poplar Road, Lower Alloways	11.9	4.9	11.6	2.6	11.4	5.1	10.7	3.1
3	Money and Eagle Island Road	13.1	2.3	12.4	2.0	12.7	5.1	11.6	1.6
4	Ft. Elfsborg / Hancocks – East	14.0	4.3	13.7	2.5	12.8	2.7	12.4	1.5
5	Ft. Elfsborg / Hancocks – West	17.2	2.8	16.7	1.7	17.0	2.2	15.7	2.5
6	Stathems Neck Road	12.0	1.8	11.6	14.7	11.1	1.3	11.0	1.3
7	Stow Neck Road Lower Alloways	10.1	3.1	9.4	3.1	9.6	4.7	9.4	3.0
8	Alloways Creek Neck Road - Middle	10.1	2.7	9.4	2.1	9.7	2.0	9.4	3.0
9	Alloways Creek Neck Road - North	13.0	3.0	12.7	2.6	12.9	6.1	*	*
10	Abbotts Farm Road	10.0	4.2	9.4	3.2	9.1	2.9	9.0	1.2
11	PSEG Education Center/EOF	11.1	2.9	10.7	1.4	10.7	2.7	10.2	8.2

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 90 days (a standard quarter).

* TLD badges missing from site

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Comparison of NJDEP and Mirion Technologies Thermoluminescent Dosimetry Data for Oyster Creek

Quarterly Results for Co-located Dosimeters

<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	10.1	2.9	9.7	3.5	9.9	1.2	10.5	3.6	9.6	3.5	8.5	3.3	9.5	4.0	10.5	3.3
7	Finninger Farm,OCNGS Forked River	9.2	3.7	8.3	5.3	9.0	3.1	9.5	3.9	8.5	5.3	7.7	5.1	8.7	3.0	9.5	5.6
13	Restrooms, Lakeside Dr. Forked River	9.8	2.0	9.3	2.7	9.3	3.2	10.0	3.0	8.9	1.7	8.5	6.6	8.9	3.5	9.8	6.0
21	Rose Hill and Barnegat Rd Barnegat Twp.	9.8	3.9	9.5	3.4	8.9	2.6	10.5	5.7	9.2	2.5	8.3	3.5	9.4	2.6	10.8	4.0

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 90 days (a standard quarter)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Comparison of NJDEP and Mirion Technologies Thermoluminescent Dosimetry Data for Salem/Hope Creek

Quarterly Results for Co-located Dosimeters

<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>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	11.6	4.4	10.7	3.3	10.9	2.5	11.7	3.5	10.6	2.6	10.5	6.9	10.7	4.9	12.2	3.0
2	Poplar Road, Lower Alloways	11.9	4.9	11.2	3.7	11.6	2.6	11.7	3.5	11.4	5.1	11.0	4.1	10.7	3.1	12.3	5.1
3	Money and Eagle Island Roads	13.1	2.3	12.5	2.8	12.4	2.0	14.5	2.8	12.7	5.1	12.0	3.9	11.6	1.6	13.2	2.8
5	Ft. Elfsborg/ Hancocks - West	17.2	2.8	16.7	3.7	16.7	1.7	18.0	3.5	17.0	2.2	16.7	3.2	15.7	2.5	17.7	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 90 days (a standard quarter)

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Comparison of NJDEP and Mirion Technologies Thermoluminescent Dosimetry for Salem/Hope Creek

Quarterly Results for Co-located Dosimeters

<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>
7	Stow Neck Road-Lower Alloways	10.1	3.1	10.0	2.6	9.4	3.1	12.0	2.6	9.6	4.7	8.7	2.6	9.4	3.0	10.8	6.8
9	Alloways Creek Neck Road - North	13.0	3.0	12.0	2.3	12.7	2.6	14.3	2.3	12.9	6.1	12.0	3.9	*	*	*	*
11	PSEG Ed. Center/EOF Salem City	11.1	2.9	10.7	3.3	10.7	1.4	12.7	3.3	10.7	2.7	9.8	3.7	10.2	8.2	11.2	3.2

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

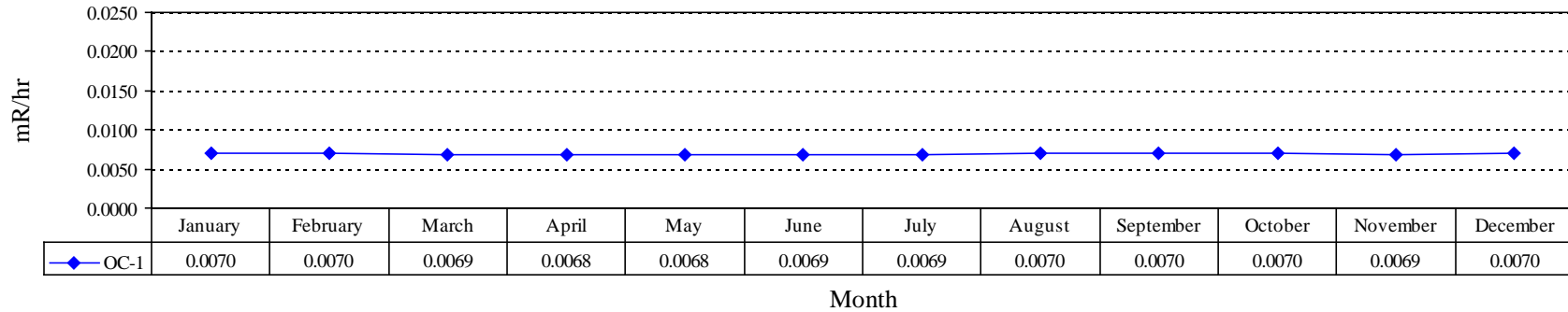
All exposures were normalized to 90 days (a standard quarter)

* TLD badges missing from site

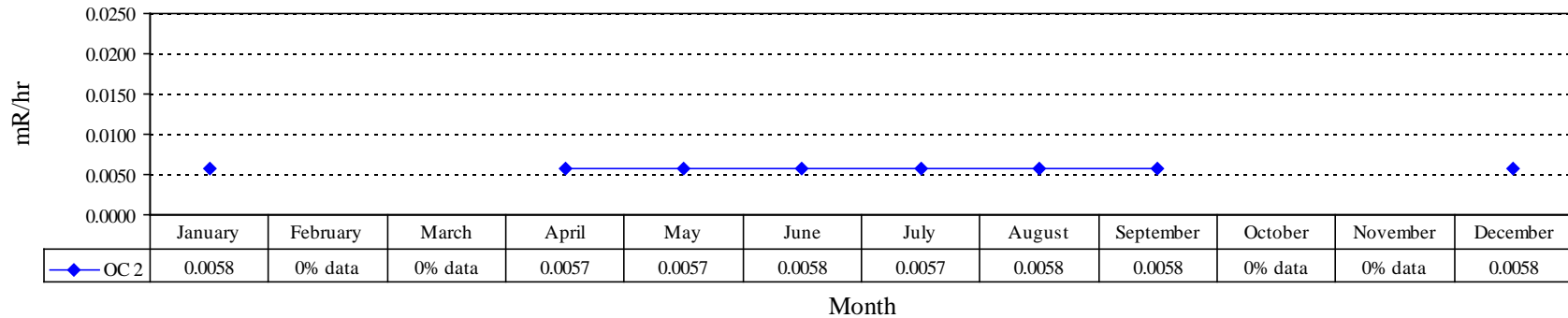
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 1
2013 Ambient Radiation Levels**



**OC 2
2013 Ambient Radiation Levels**

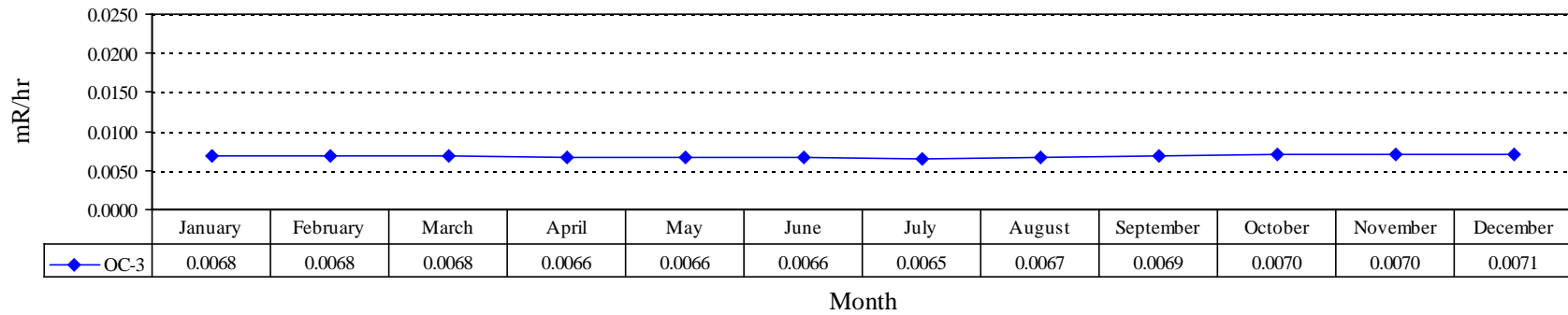


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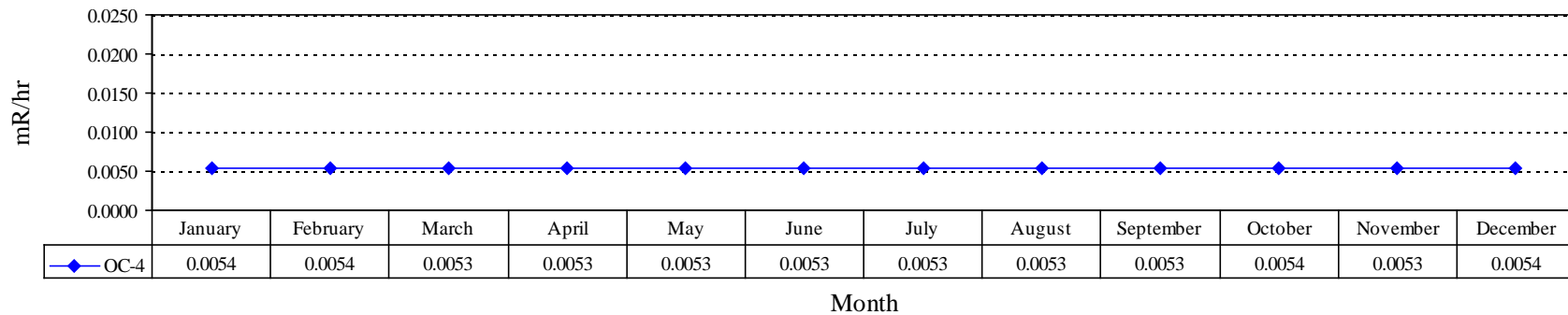
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 3
2013 Ambient Radiation Levels**



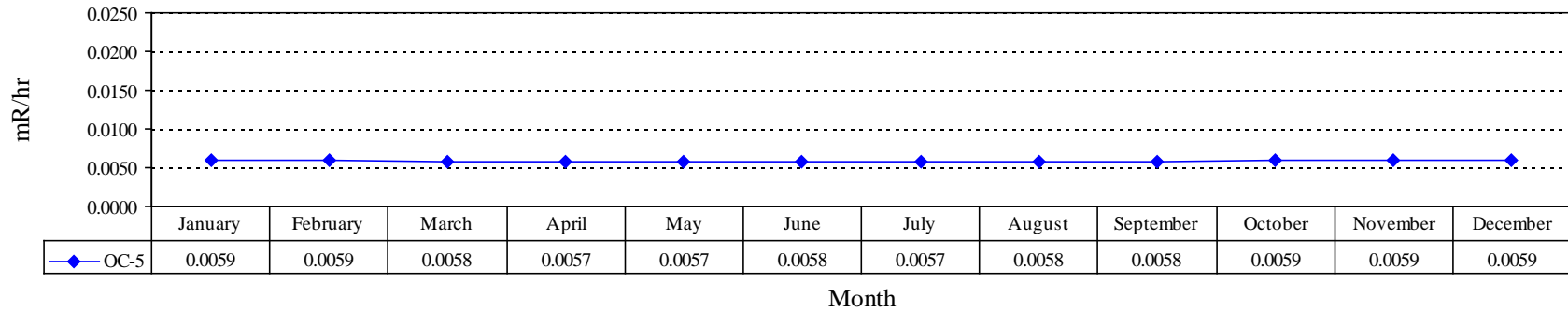
**OC 04
2013 Ambient Radiation Levels**



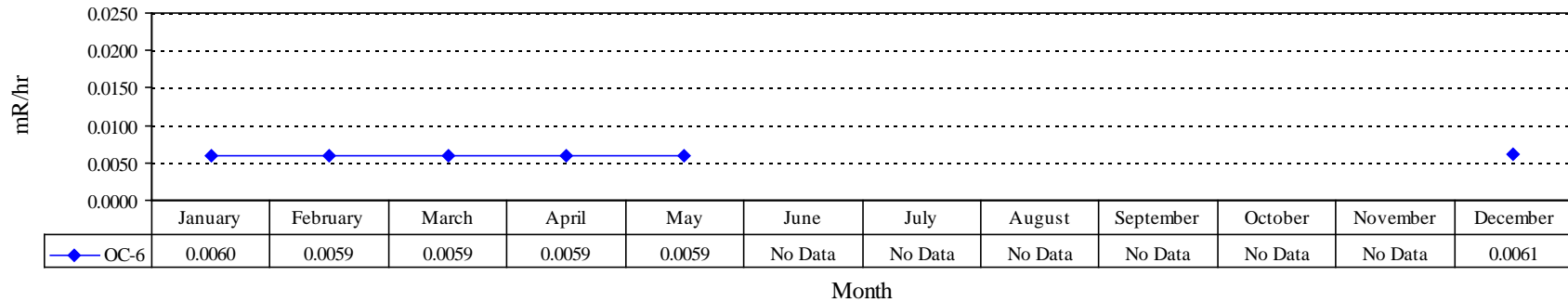
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 5
2013 Ambient Radiation Levels**



**OC 6
2013 Ambient Radiation Levels**

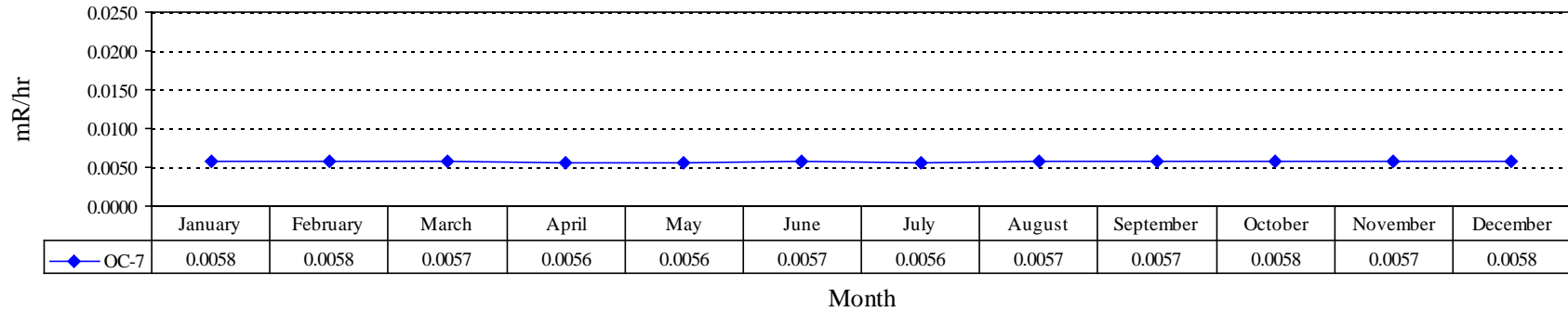


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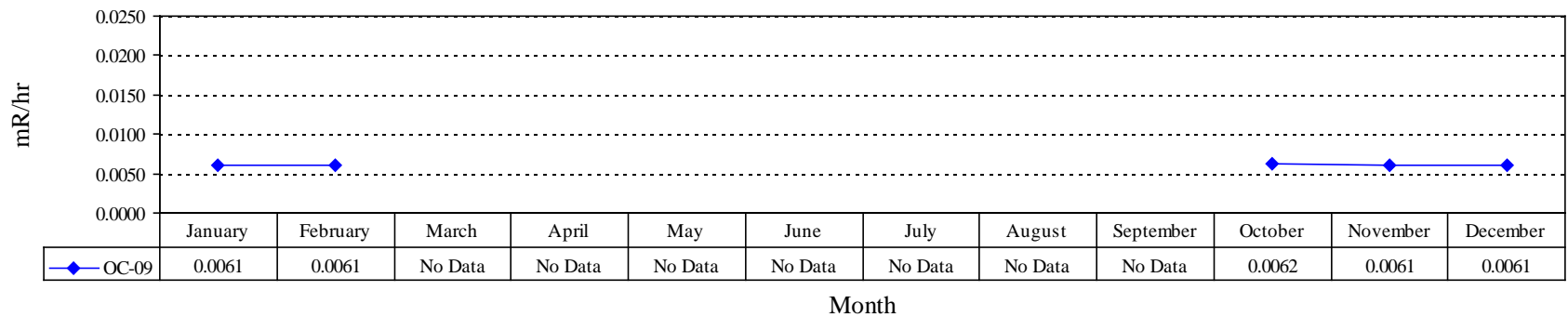
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 7
2013 Ambient Radiation Levels**



**OC 9
2013 Ambient Radiation Levels**

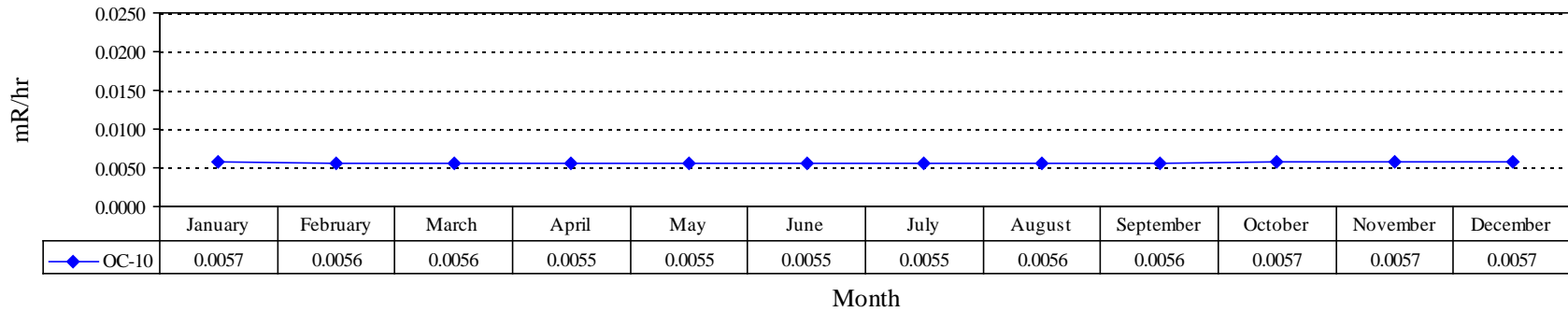


Blank months indicate "No Data Available". OC-8 was not operational in 2013; therefore no data graph is available

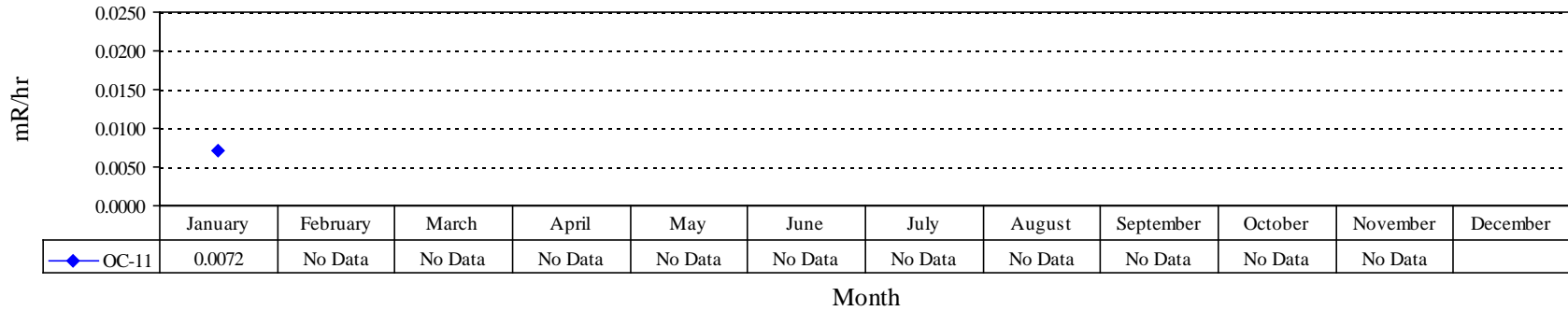
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 10
2013 Ambient Radiation Levels**



**OC 11
2013 Ambient Radiation Levels**

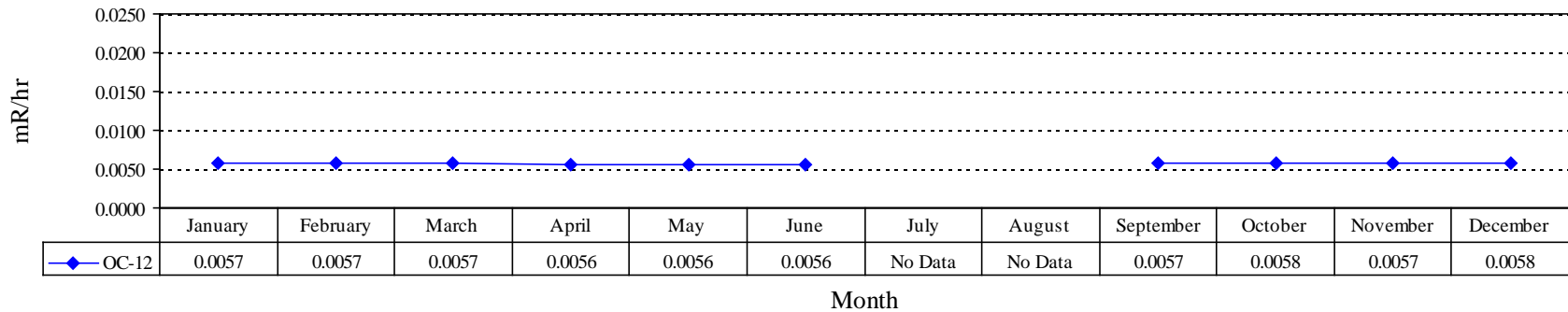


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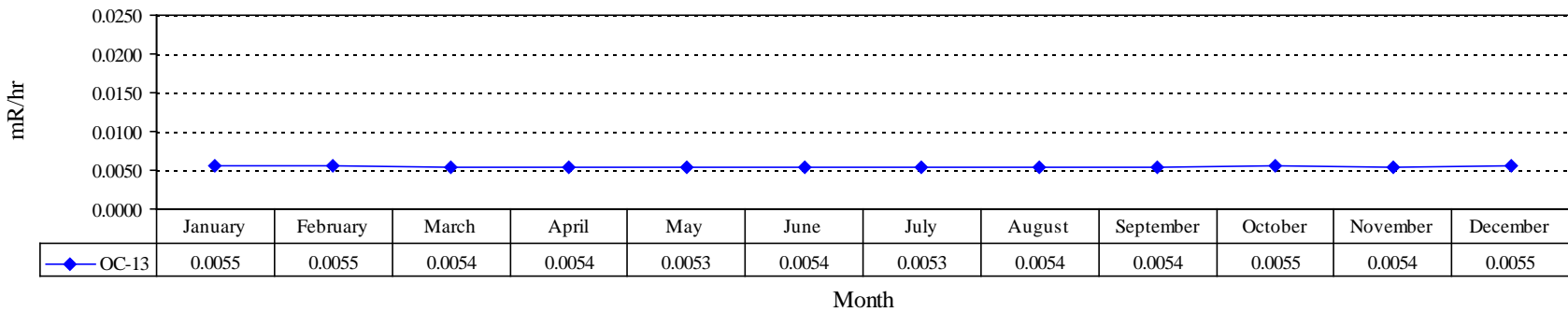
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 12
2013 Ambient Radiation Levels**



**OC 13
2013 Ambient Radiation Levels**

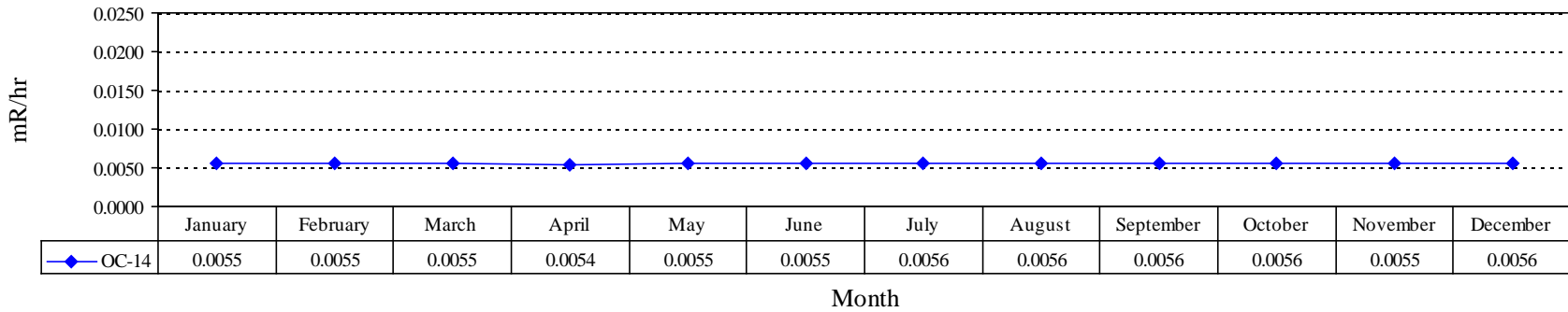


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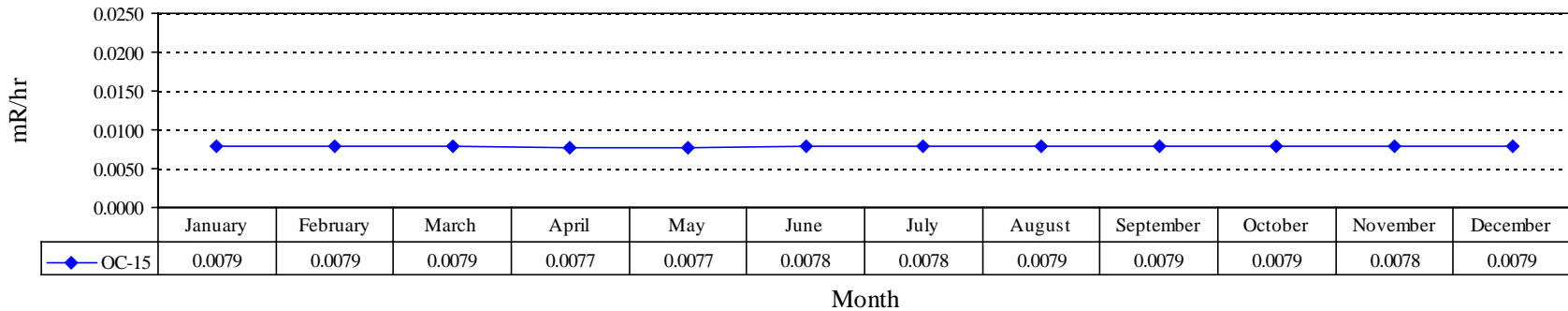
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 14
2013 Ambient Radiation Levels**



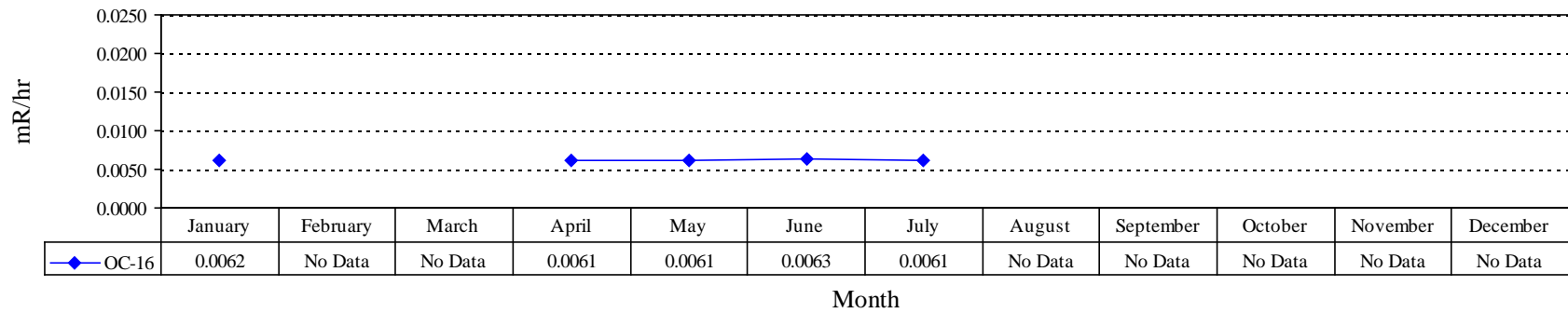
**OC 15
2013 Ambient Radiation Levels**



**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Oyster Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**OC 16
2013 Ambient Radiation Levels**



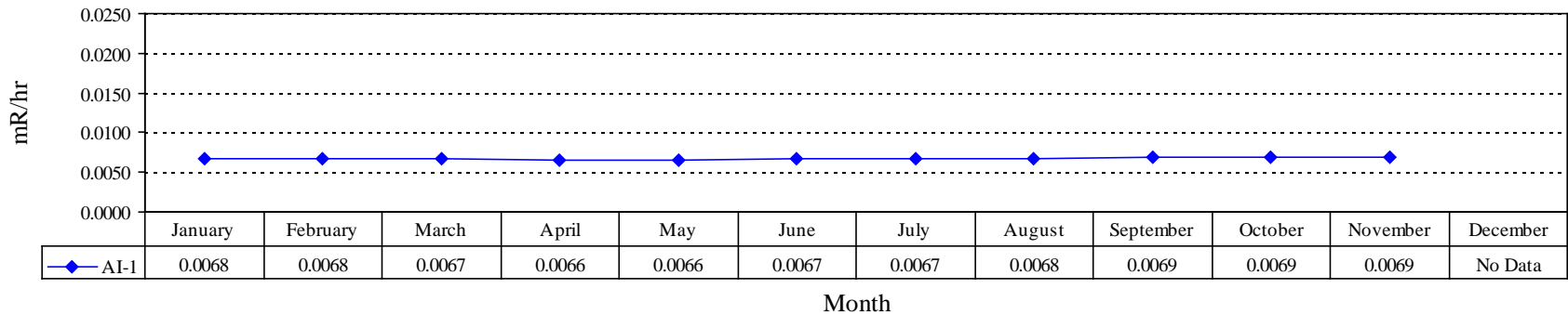
Blank months indicate "No Data Available"

**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

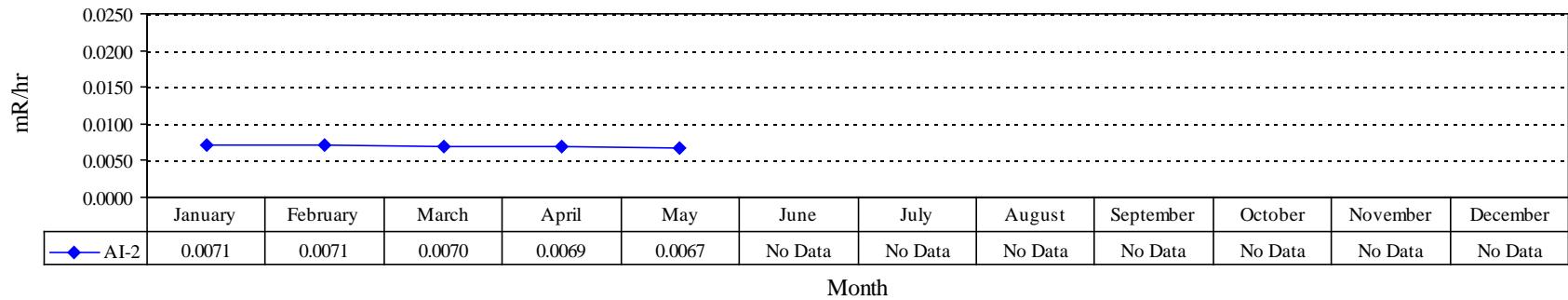
AI 1

2013 Ambient Radiation Levels



AI 2

2013 Ambient Radiation Levels

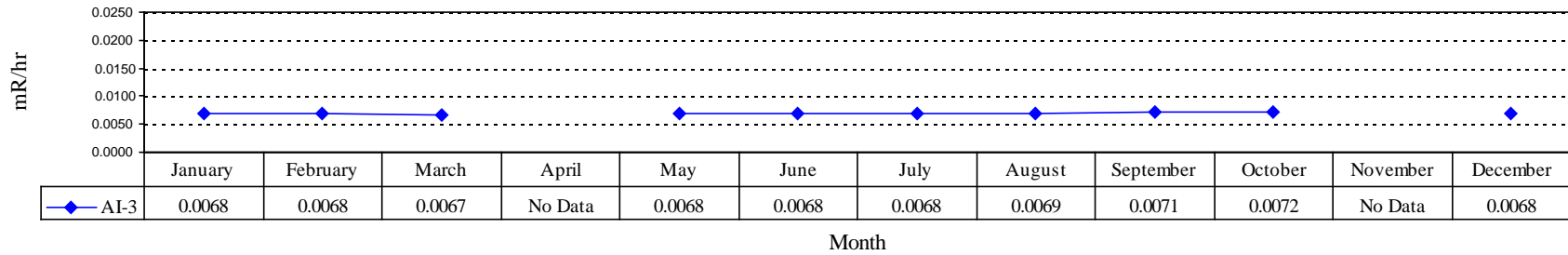


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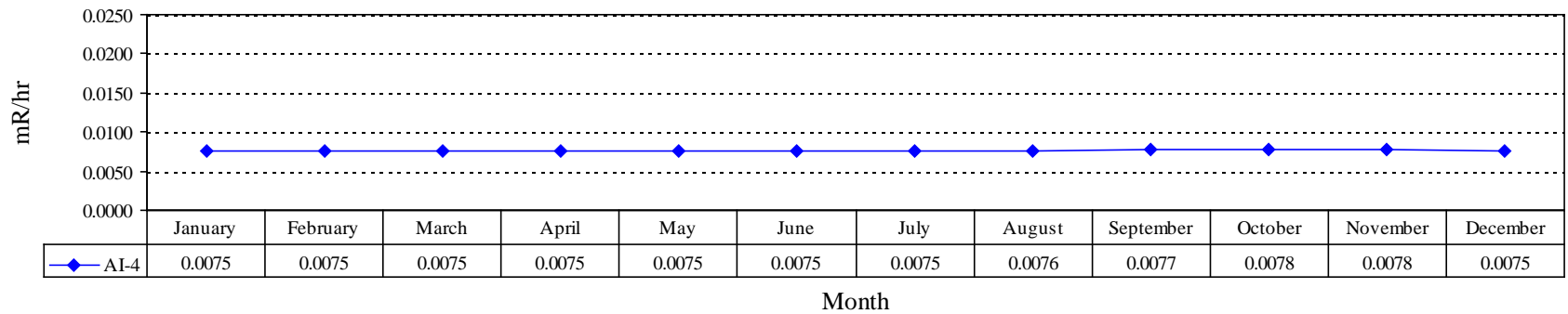
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**AI 3
2013 Ambient Radiation Levels**



**AI 4
2013 Ambient Radiation Levels**

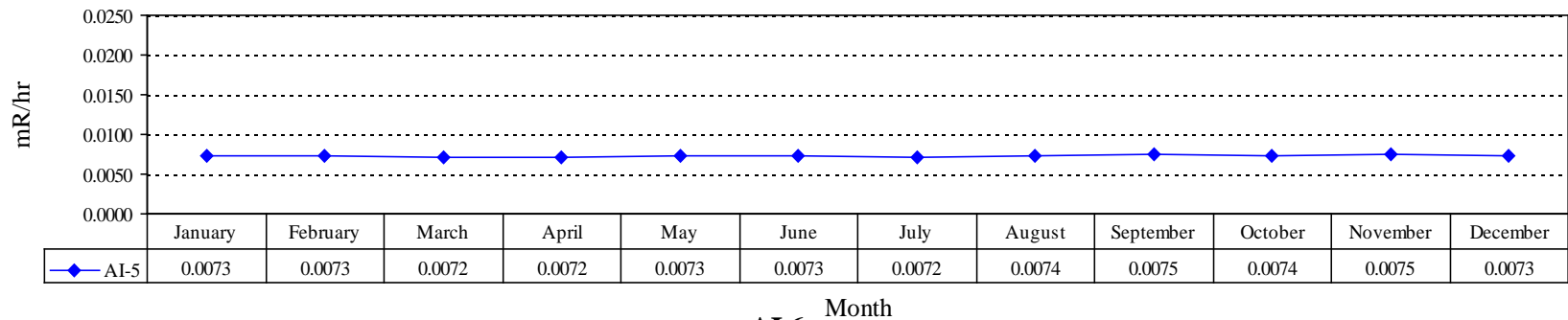


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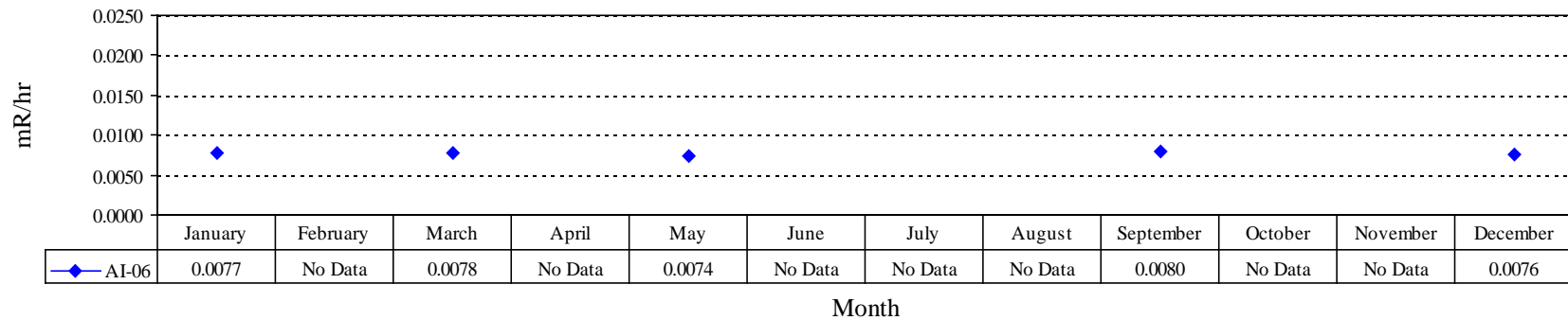
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**AI 5
2013 Ambient Radiation Levels**



**AI 6
2013 Ambient Radiation Levels**

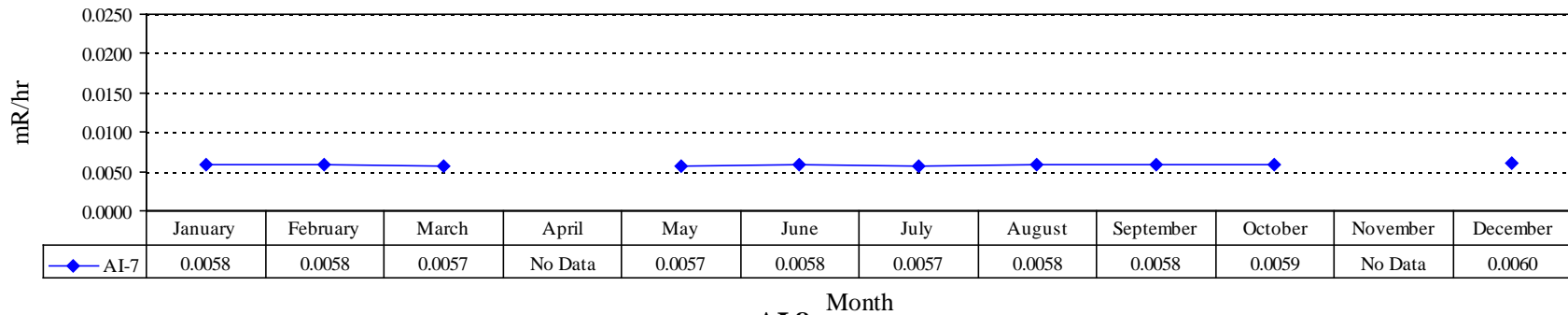


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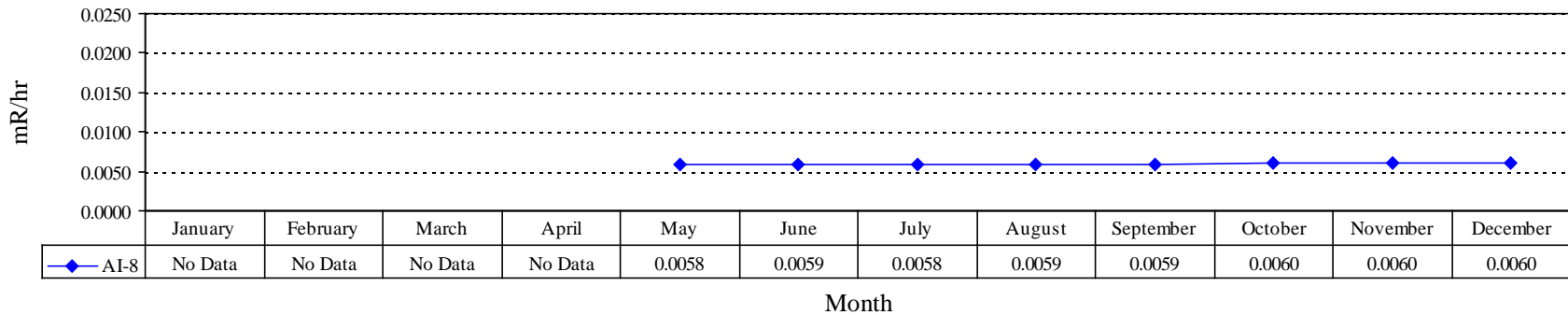
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**AI 7
2013 Ambient Radiation Levels**



**AI 8
2013 Ambient Radiation Levels**

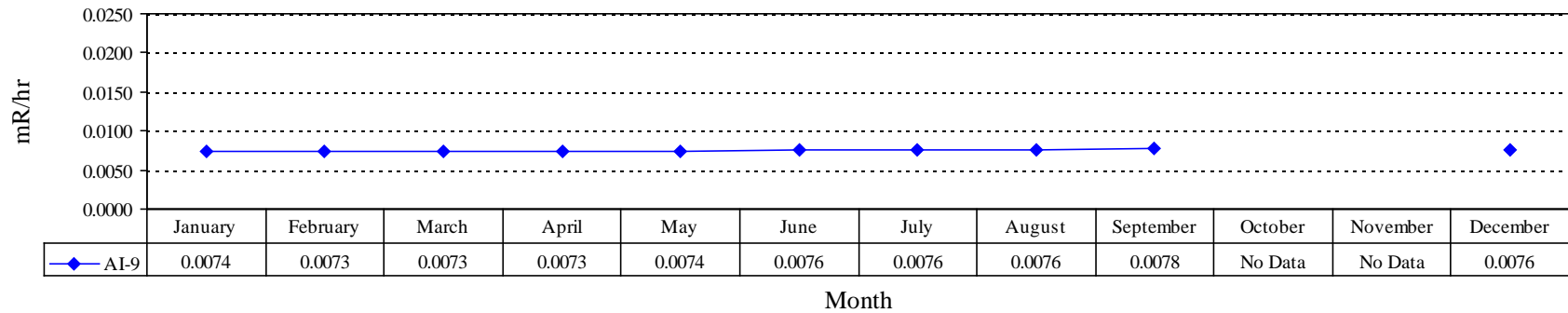


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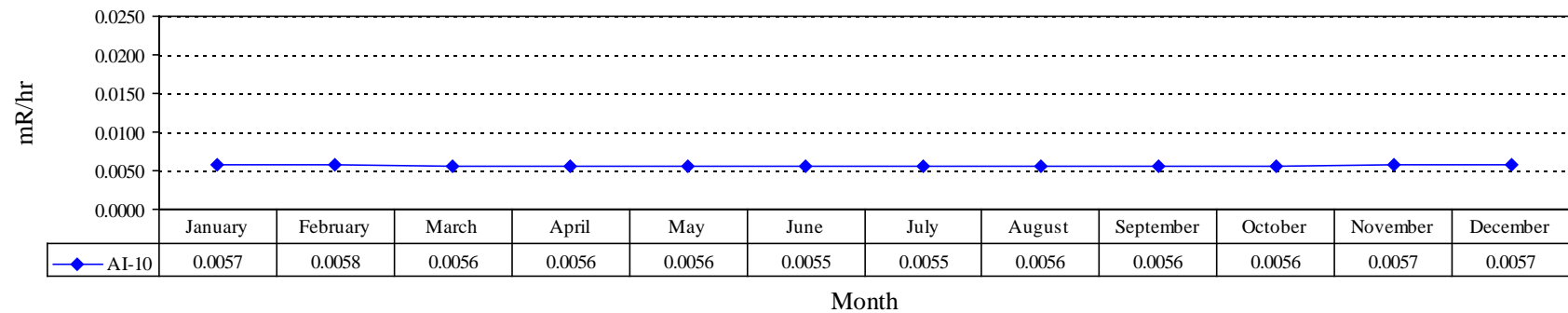
**New Jersey Department of Environmental Protection
Bureau of Nuclear Engineering
2013 Radiological Environmental Monitoring Program**

Salem/Hope Creek – Continuous Radiological Environmental Surveillance Telemetry (CREST) Data

**AI 9
2013 Ambient Radiation Levels**



**AI 10
2013 Ambient Radiation Levels**



Blank months indicate 'No Data Available'