

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF HEALTH

OFFICE OF RADIOLOGICAL HEALTH
109 Governor Street, 7th Floor, Richmond, Virginia 23219
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**ENVIRONMENTAL
RADIATION
MONITORING
PROGRAM**

**2020
Fourth Quarter Report**

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF HEALTH

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Sampling Locations

Sampling Locations for Surry & North Anna Nuclear Power Station



Surry Power Station



North Anna Power Station

Air

SPS-A-1	Surry Power Station	Beta Air Filter Gamma Charcoal & Filter
SPS-A-2	Jamestown	Beta Air Filter Gamma Charcoal & Filter
PSP-A-1	Pocahontas State Park	Beta Air Filter Gamma Charcoal & Filter
NAPS-A-1	Louisa (Outside North Anna Power Station)	Beta Air Filter Gamma Charcoal & Filter
NAPS-A-2	Bumpass	Beta Air Filter Gamma Charcoal & Filter

Water

SPS-W-1	Surry Power Station Discharge Canal	Gamma, Tritium
SPS-W-2	James River @ Robious Landing	Gamma, Tritium
SPS-W-3	James River @ Scotland Wharf	Gamma, Tritium
NAPS-W-1	North Anna Power Station Discharge Canal	Gamma, Tritium
NAPS-W-2	North Anna River @ Rt 651	Gamma, Tritium
NAPS-W-3	North Anna River @ Rt. 522	Gamma, Tritium

Sample Analysis Results for Surry & North Anna Power Stations

WEEK	FREQUENCY	PAGE	COMMENTS
Week 1: 12/31/18- 01/07/19	Weekly	12	
Week 2: 01/07/19 - 01/14/19	Weekly	13	
Week 3: 01/14/19 - 01/21/19	Weekly	14	
Week 4: 01/21/19 - 01/28/19	Weekly	15	
Week 5: 01/28/19 - 02/04/19	Weekly	16	
Week 6: 02/04/19 - 02/11/19	Weekly	17	
Week 7: 02/11/19 - 02/18/19	Weekly	18	
Week 8: 02/18/19 - 02/25/19	Weekly	19	
Week 9: 02/25/19 - 03/04/19	Weekly	20	
Week 10: 03/04/19 - 03/11/19	Weekly	21	
Week 11: 03/11/19 - 03/18/19	Weekly	22	
Week 12: 03/18/19 - 03/25/19	Weekly	23	
Week 13: 03/25/19 - 04/01/19	Weekly	24	
Week 14: 04/01/19 - 04/08/19	Weekly	25	
Week 15: 04/08/19 - 04/15/19	Weekly	26	
Week 16: 04/15/19 - 04/22/19	Weekly	27	
Week 17: 04/22/19 - 04/29/19	Weekly	28	
Week 18: 04/29/19 - 05/06/19	Weekly	29	
Week 19: 05/06/19 - 05/13/19	Weekly	30	
Week 20: 05/13/19- 05/20/19	Weekly	31	
Week 21: 05/20/19 - 05/27/19	Weekly	32	
Week 22: 05/27/19 - 06/03/19	Weekly	33	
Week 23: 06/03/19 - 06/10/19	Weekly	34	
Week 24: 06/10/19 - 06/17/19	Weekly	35	
Week 25: 06/17/19 - 06/24/19	Weekly	36	
Week 26: 06/24/19 - 07/01/19	Weekly	37	
Week 27: 07/01/19 - 07/08/19	Weekly	38	
Week 28: 07/08/19- 07/15/19	Weekly	39	
Week 29: 07/15/19 - 07/22/19	Weekly	40	
Week 30: 07/22/19 - 07/29/19	Weekly	41	
Week 31: 07/29/19 - 08/05/19	Weekly	42	
Week 32: 08/05/19 - 08/12/19	Weekly	43	
Week 33: 08/12/19 - 08/19/19	Weekly	44	
Week 34: 08/19/19 - 08/26/19	Weekly	45	
Week 35: 08/26/19 - 09/02/19	Weekly	46	
Week 36: 09/02/19 - 09/09/19	Weekly	47	
Week 37: 09/09/19 - 09/16/19	Weekly	48	

Sample Analysis Results for Surry & North Anna Power Stations

WEEK	FREQUENCY	PAGE	COMMENTS
Week 38: 09/16/19 - 09/23/19	Weekly	49	
Week 39: 09/23/19 - 09/30/19	Weekly	50	
Week 40: 09/30/19 - 10/07/19	Weekly	51	
Week 41: 10/07/19 - 10/14/19	Weekly	52	
Week 42: 10/14/19 - 10/21/19	Weekly	53	
Week 43: 10/21/19 - 10/28/19	Weekly	54	
Week 44: 10/28/19 - 11/04/19	Weekly	55	
Week 45: 11/04/19 - 11/11/19	Weekly	56	
Week 46: 11/11/19 - 11/18/19	Weekly	57	
Week 47: 11/18/19 - 11/25/19	Weekly	58	
Week 48: 11/25/19 - 12/02/19	Weekly	59	
Week 49: 12/02/19 - 12/09/19	Weekly	60	
Week 50: 12/09/19 - 12/16/19	Weekly	61	
Week 51: 12/16/19 - 12/23/19	Weekly	62	
Week 52: 12/23/19 - 12/30/19	Weekly	63	

Other Sample Locations

SAMPLE	LOCATION	TYPE	FREQUENCY	PAGE
<u>Surface Water</u>				
NNSB-W-1	James River - NNSB-Pier 1	Surface Water	Quarterly	64
NNSB-W-2	James River - NNSB-Shipway 11	Surface Water	Quarterly	64
NNSY-W-1	Elizabeth River - NNSY - Drydock #4	Surface Water	Quarterly	65
NNSY-W-2	Elizabeth River - NNSY - Drydock #8	Surface Water	Quarterly	66
NNSY-W-3	Elizabeth River - NNSY - Wet Slip #1	Surface Water	Quarterly	67
<u>Silt</u>				
NNSB-S-1	James River - NNSB - Pier 1	Silt	Quarterly	68
NNSB-S-2	James River - NNSB-Shipway 11	Silt	Quarterly	69
NNSY-S-1	Elizabeth River - NNSY - Drydock #4	Silt	Quarterly	70
NNSY-S-2	Elizabeth River - NNSY - Drydock #8	Silt	Quarterly	71
NNSY-S-3	Elizabeth River - NNSY - Wet Slip #1	Silt	Quarterly	72

Other Sample Types for Surry & North Anna Power Stations

Sample	Location	Description	Frequency	Page
SILT				
SPS-S-1	James River – 1 ½ Mile Off Discharge Canal	Silt	2x per year	73
NAPS-S-1	Waste Treatment Shoreline Soil	Soil	2x per year	73
FISH				
NAPS-F-1	North Anna Lake – Second Cooling Lagoon	Edible Fish	2x per year	74-75
SPS-F-1	James River – .5 miles off Discharge Canal	Edible Fish	2x per year	74-75
SPS-R-1	James River- Various Locations	Shellfish	Annually	76
MILK				
SPS-M-1	Surry County-Epps Dairy	Raw	Quarterly	77-78
VEGETATION				
SPS-V-1	Surry County – Local Farmers	Edible Vegetation	2x per year	79
NAPS-V-1	Louisa County – Local Farmers	Edible Vegetation	2x per year	79

Dosimetry Locations for Surry & North Anna Power Stations

Dosimetry	Station	Frequency	Description	Page
Jamestown – Historical site	SPS-D-1	Quarterly	Gamma in Air	80-83
Williamsburg – Airport	SPS-D-2	Quarterly	Gamma in Air	80-83
Williamsburg – Busch Gardens	SPS-D-3	Quarterly	Gamma in Air	80-83
Newport News - Lee Hall	SPS-D-4	Quarterly	Gamma in Air	80-83
Naval Weapons Station – 1	SPS-D-5	Quarterly	Gamma in Air	80-83
Newport News – Fort Eustis	SPS-D-6	Quarterly	Gamma in Air	80-83
Surry – Route 628	SPS-D-7	Quarterly	Gamma in Air	80-83
Surry – Lawnes Creek	SPS-D-8	Quarterly	Gamma in Air	80-83
Surry Power Station	SPS-D-9	Quarterly	Gamma in Air	80-83
Surry – Hog Point	SPS-D-10	Quarterly	Gamma in Air	80-83
Surry – Bacon’s Castle	SPS-D-11	Quarterly	Gamma in Air	80-83
Surry – Alliance	SPS-D-12	Quarterly	Gamma in Air	80-83
Surry – Scotland Wharf	SPS-D-13	Quarterly	Gamma in Air	80-83
Surry – Lebanon Baptist Church	SPS-D-14	Quarterly	Gamma in Air	80-83
Louisa County - Mineral	NAPS-D-1	Quarterly	Gamma in Air	80-83
Louisa County – Wares Crossroads	NAPS-D-2	Quarterly	Gamma in Air	80-83
Louisa County – Good Hope Church	NAPS-D-3	Quarterly	Gamma in Air	80-83
Spotsylvania – Route 713	NAPS-D-4	Quarterly	Gamma in Air	80-83
Spotsylvania Route 614	NAPS-D-5	Quarterly	Gamma in Air	80-83
Spotsylvania – Levy	NAPS-D-6	Quarterly	Gamma in Air	80-83
Louisa County – Bumpass Fire Dept.	NAPS-D-7	Quarterly	Gamma in Air	80-83
Louisa County – Fred Hall	NAPS-D-8	Quarterly	Gamma in Air	80-83
Louisa County – Aspen Hill	NAPS-D-9	Quarterly	Gamma in Air	80-83
Louisa County – Route 685	NAPS-D-10	Quarterly	Gamma in Air	80-83
Louisa County – Route 700	NAPS-D-11	Quarterly	Gamma in Air	80-83
North Anna Power Station	NAPS-D-12	Quarterly	Gamma in Air	80-83
Pocahontas State Park (Control)	PSP-D-1	Quarterly	Gamma in Air	80-83
Radiological Health	ORH-D-1	Quarterly	Gamma in Air	80-83
Radiological Health	ORH-D-2	Quarterly	Gamma in Air	80-83

Sampling Locations - Babcock & Wilcox

SAMPLE	LOCATION	TYPE	FREQUENCY	PAGE
<u>AIR</u>				
B&W-A-1	Eastern Site Boundary - Ballfield	Air Particulate	Quarterly	85
<u>SOIL</u>				
B&W-S-1	Eastern Site Boundary - Ballfield	Soil	Annually	86
B&W-S-2	James River Riverside Park	Soil	Annually	86
<u>SURFACE WATER</u>				
B&W-W-1	Eastern Site Boundary - Ballfield	Surface Water	Annually	86
B&W-W-2	James River Riverside Park	Surface Water	Annually	86
<u>VEGETATION</u>				
B&W-V-1	Eastern Site Boundary - Ballfield	Grass	Annually	87
B&W-V-2	James River Riverside Park	Grass	Annually	87

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NO DETECTABLE RESULTS "NDR"

In order for a nuclide to be identified in the spectrum and entered into this report, constraints set by the HPGe analysis software need to be satisfied and the results of the confidence index calculation must be greater than the threshold (usually 0.3).

For the maximum confidence index, the following conditions need to be met.

- The nuclide energy peak needs to be within the energy tolerance of the library lines for that nuclide.
- A nuclide with multiple lines, must match the library peaks in the spectrum.
- The number of half-lives that has elapsed, between when the sample was taken and when it was counted, must be less than 10 half-lives or the confidence in the identification is small.

If the confidence index threshold and/or any of the three criteria are not met, then the nuclide is deemed no detectable results, (NDR).

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Analytical Results

Virginia Department of Health

Week 1: 12/30/19 – 01/06/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
SPS-A-2	NDR	NDR	NDR	0.04 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.004
NAPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.004

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 123
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 100
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	901 +/- 141
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5030 +/- 339
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4880 +/- 235

Virginia Department of Health

Week 2: 01/06/20 – 01/13/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.05 +/- 0.008
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1351 +/- 174
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 101
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 101
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 101
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5330 +/- 356
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 101
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 101
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5105 +/- 101

Virginia Department of Health

Week 3: 01/13/20 – 01/20/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.005
NAPS-A-1	NDR	NDR	NDR	0.04 +/- 0.005
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.004

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2102 +/- 212
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 100
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 100
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 122
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4429 +/- 324
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	676 +/- 122
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4505 +/- 100

Virginia Department of Health
Week 4: 01/20/20 – 01/27/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.05 +/- 0.008
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1351 +/- 188
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 101
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3904 +/- 310
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 101
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3303 +/- 214

Virginia Department of Health

Week 5: 01/27/20 – 02/03/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.04 +/- 0.006
SPS-A-2	NDR	NDR	NDR	0.06 +/- 0.008
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 37	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2928 +/- 264
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	901 +/- 141
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1276 +/- 173
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1802 +/- 212
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4429 +/- 331
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1051 +/- 158
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1652 +/- 200
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4279 +/- 200

Virginia Department of Health
Week 6: 02/03/20 – 02/10/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.04 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-2	NDR	NDR	NDR	0.04 +/- 0.005

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1201 +/- 158
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	826 +/- 100
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4580 +/- 332
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4880 +/- 71

Virginia Department of Health
Week 7: 02/10/20 – 02/17/20¹

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 37	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-3											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-3											
NAPS-W-4											

¹ Due to the Holiday, 2/17, no samples were collected.

Virginia Department of Health
Week 8: 02/17/20 – 02/24/20²

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.04 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.06 +/- 0.008
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-2	NDR	NDR	NDR	0.06 +/- 0.008

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3604 +/- 300
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 100
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3604 +/- 100

² Due to the Holiday, 2/17, air samples ran for 2 weeks, grab water samples collected.

Virginia Department of Health

Week 9: 02/24/20 – 03/02/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.05 +/- 0.006
SPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ³	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	32,057 +/- 884
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 71
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2778 +/- 300
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3604 +/- 256

³ Due to a scheduled release at the Surry Power Station, tritium levels are elevated.

Virginia Department of Health
Week 10: 03/02/20 – 03/09/20⁴

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-3											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-3											
NAPS-W-4											

⁴ Due to the MICL being serviced, samples were not collected.

Virginia Department of Health
Week 11: 03/02/20 – 03/16/20⁵

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.04 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.006

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	676 +/- 123
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 123
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	676 +/- 123
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 123
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3904 +/- 316
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 100
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 100
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4880 +/- 100

⁵ Due to the MICL being serviced, air samples ran for two week, grab water samples collected.

Virginia Department of Health
Week 12: 03/16/20 - 03/23/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.05 +/- 0.006
SPS-A-2	NDR	NDR	NDR	0.07 +/- 0.009
PSP-A-1	NDR	NDR	NDR	0.06 +/- 0.008
NAPS-A-1	NDR	NDR	NDR	0.04 +/- 0.005
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1952 +/- 213
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 123
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4580 +/- 348
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 123
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 100
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4054 +/- 100

Virginia Department of Health

Week 13: 03/23/19 – 03/30/19⁶

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3754 +/- 303
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1051 +/- 160
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1201 +/- 175
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1126 +/- 160
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5631 +/- 371
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	751 +/- 124
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 124
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5405 +/- 124

⁶ Due to equipment malfunction, air samples were not collected.

Virginia Department of Health
Week 14: 03/30/20 – 04/06/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.05 +/- 0.006
SPS-A-2	NDR	NDR	NDR	0.05 +/- 0.006
PSP-A-1	NDR	NDR	NDR	0.06 +/- 0.009
NAPS-A-1 ⁷				
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4880 +/- 347
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2177 +/- 235
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2102 +/- 224
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1877 +/- 212
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2778 +/- 255
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2102 +/- 235
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1276 +/- 173
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4730 +/- 173

⁷ Due to equipment malfunction, NAPS-A-1 was not collected.

Virginia Department of Health
Week 15: 04/06/20 – 04/13/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.004
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.004
NAPS-A-1	NDR	NDR	NDR	0.04 +/- 0.005
NAPS-A-2	NDR	NDR	NDR	0.04 +/- 0.005

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	826 +/- 141
SPS-W-2 ⁸											
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 122
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	826 +/- 141
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4129 +/- 324
NAPS-W-2 ⁹											
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 100
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4054 +/- 100

⁸ Due to weather related flooding, sample SPS-W-2 was not collected.

⁹ Due to weather related flooding, sample NAPS-W-2 was not collected.

Virginia Department of Health
Week 16: 04/13/20 – 04/20/20¹⁰

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.06 +/- 0.008
NAPS-A-2	NDR	NDR	NDR	0.06 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
SPS-W-2 ¹¹											
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3078 +/- 285
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3228 +/- 225

¹⁰ Due to weather related flooding, sampling was delayed until 4/21

¹¹ Due to weather related flooding, sample SPS-W-2 was not collected.

Virginia Department of Health
Week 17: 04/20/20 – 04/27/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
SPS-A-2	NDR	NDR	NDR	0.02 +/- 0.003
PSP-A-1	NDR	NDR	NDR	0.02 +/- 0.003
NAPS-A-1 ¹²				
NAPS-A-2	NDR	NDR	NDR	0.02 +/- 0.003

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 71
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3228 +/- 283
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1201 +/- 173
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3529 +/- 173

¹² Due to service maintenance on NAPS-A-1 Air Sampler, no sample was collected.

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Week 18: 04/27/20 – 05/04/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.006
NAPS-A-1 ¹³				
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1276 +/- 173
SPS-W-2 ¹⁴											
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 100
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3453 +/- 292
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 71
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 100
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3604 +/- 100

¹³ Due to service maintenance on NAPS-A-1 Air Sampler, no sample was collected.

¹⁴ Due to weather related flooding, sample SPS-W-2 was not collected.

Virginia Department of Health
Week 19: 05/04/20 – 05/11/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.04 +/- 0.006
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.005
NAPS-A-1 ¹⁵				
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	2027 +/- 224
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	676 +/- 122
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3979 +/- 308
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 71
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4805 +/- 71

¹⁵ Due to service maintenance on NAPS-A-1 Air Sampler, no sample was collected.

Virginia Department of Health
Week 20: 05/11/20 - 05/18/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.01 +/- 0.003
SPS-A-2	NDR	NDR	NDR	0.02 +/- 0.003
PSP-A-1	NDR	NDR	NDR	0.02 +/- 0.004
NAPS-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.004

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3679 +/- 309
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3679 +/- 224

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Week 21: 05/18/20 – 05/25/20¹⁶

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-3											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-3											
NAPS-W-4											

¹⁶ Due to staffing issues, samples were not collected, air samples will collect for two weeks, 5/18 – 6/1

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Week 22: 05/25/20 – 06/01/20¹⁷

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.01 +/- 0.002
SPS-A-2	NDR	NDR	NDR	0.01 +/- 0.002
PSP-A-1	NDR	NDR	NDR	0.02 +/- 0.003
NAPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
NAPS-A-2	NDR	NDR	NDR	0.02 +/- 0.003

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3228 +/- 274
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-3 ¹⁸											
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5556 +/- 367
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-3 ¹⁹											
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5631 +/- 141

¹⁷ Due to staffing issues, air samples collected from 5/18 – 6/1, grab water samples collected.

¹⁸ Due to the new sampling location SPS-W-4, SPS-W-3 will no longer be used

¹⁹ Due to the new sampling location NAP-W-4, NAPS-W-3 will no longer be used

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Week 23: 06/01/20 - 06/08/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-1	NDR	NDR	NDR	0.08 +/- 0.010
NAPS-A-2	NDR	NDR	NDR	0.08 +/- 0.010

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	751 +/- 142
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	751 +/- 142
SPS-W-3 ²⁰											
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	676 +/- 123
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4655 +/- 349
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 123
NAPS-W-3 ²¹											
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4955 +/- 142

²⁰ Due to the new sampling location SPS-W-4, SPS-W-3 will no longer be used

²¹ Due to the new sampling location NAP-W-4, NAPS-W-3 will no longer be used

Virginia Department of Health
Week 24: 06/08/20 – 06/15/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.005
NAPS-A-1	NDR	NDR	NDR	0.07 +/- 0.009
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 43
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 68
SPS-W-3 ²²											
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 68
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4354 +/- 318
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 68
NAPS-W-3 ²³											
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4204 +/- 310

²² Due to the new sampling location SPS-W-4, SPS-W-3 will no longer be used

²³ Due to the new sampling location NAP-W-4, NAPS-W-3 will no longer be used

Virginia Department of Health
Week 25: 06/15/20 – 06/22/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.02 +/- 0.003
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.005
NAPS-A-1	NDR	NDR	NDR	0.07 +/- 0.009
NAPS-A-2	NDR	NDR	NDR	0.06 +/- 0.008

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
SPS-W-2 ²⁴											
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	8709 +/- 460
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	6757 +/- 426

²⁴ Due to weather related flooding, no sample was collected.

Virginia Department of Health
Week 26: 06/22/20 - 06/29/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.08 +/- 0.010
NAPS-A-2	NDR	NDR	NDR	0.06 +/- 0.008

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1351 +/- 187
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1276 +/- 173
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	826 +/- 141
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5781 +/- 381
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 122
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5781 +/- 381

Virginia Department of Health

Week 27: 06/29/20 – 07/06/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.05 +/- 0.007
SPS-A-2	NDR	NDR	NDR	0.08 +/- 0.010
PSP-A-1	NDR	NDR	NDR	0.06 +/- 0.008
NAPS-A-1	NDR	NDR	NDR	0.09 +/- 0.012
NAPS-A-2 ²⁵				

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 225
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4805 +/- 348
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4429 +/- 341

²⁵ Due to sampling issue, Bumpass Air Sample will run for two weeks.

Virginia Department of Health

Week 28: 07/06/20 – 07/13/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.07 +/- 0.010
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-1	NDR	NDR	NDR	0.10 +/- 0.013
NAPS-A-2	NDR	NDR	NDR	0.06 +/- 0.008

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1 ²⁶	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	9685 +/- 492
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	6682 +/- 401

²⁶ Due to Dominion Boron Recovery Tank release, tritium level was elevated.

Virginia Department of Health
Week 29: 07/13/20 - 07/20/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.04 +/- 0.007
SPS-A-2	NDR	NDR	NDR	0.04 +/- 0.007
PSP-A-1	NDR	NDR	NDR	0.06 +/- 0.009
NAPS-A-1	NDR	NDR	NDR	0.08 +/- 0.011
NAPS-A-2	NDR	NDR	NDR	0.09 +/- 0.012

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 123
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 123
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 123
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5255 +/- 369
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5631 +/- 375

Virginia Department of Health
Week 30: 07/20/20 – 07/27/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.04 +/- 0.006
SPS-A-2	NDR	NDR	NDR	0.04 +/- 0.007
PSP-A-1	NDR	NDR	NDR	0.06 +/- 0.009
NAPS-A-1	NDR	NDR	NDR	0.08 +/- 0.011
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 71
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 100
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5330 +/- 369
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 0
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5255 +/- 369

Virginia Department of Health
Week 31: 07/27/20 - 08/03/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-1 ²⁷				
NAPS-A-2	NDR	NDR	NDR	0.05 +/- 0.006

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	6982 +/- 409
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	6532 +/- 396

²⁷ Due to the electrical breaker trip, sample was not collected.

Virginia Department of Health
Week 32: 08/03/20 – 08/10/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.06 +/- 0.008
NAPS-A-2	NDR	NDR	NDR	0.07 +/- 0.010

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4354 +/- 339
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4054 +/- 324

Virginia Department of Health
Week 33: 08/10/20 – 08/17/20 ²⁸

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-4											

²⁸ Due to rain and flooding, samples were not collected.

Virginia Department of Health
Week 34: 08/17/20 – 08/24/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.002
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.002
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.003
NAPS-A-1	NDR	NDR	NDR	0.04 +/- 0.004
NAPS-A-2 ²⁹				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 30
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4805 +/- 149
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4805 +/- 149

²⁹ Due to air sampler malfunction, no sample was collected.

Virginia Department of Health
Week 35: 08/24/20 - 08/31/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.04 +/- 0.006
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-1	NDR	NDR	NDR	0.06 +/- 0.009
NAPS-A-2	NDR	NDR	NDR	0.07 +/- 0.010

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ³⁰	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4655 +/- 348
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4429 +/- 340

³⁰ Due to water sampler malfunction, grab sample was taken.

Virginia Department of Health
Week 36: 08/31/20 – 09/08/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.04 +/- 0.006
PSP-A-1	NDR	NDR	NDR	0.07 +/- 0.010
NAPS-A-1	NDR	NDR	NDR	0.09 +/- 0.011
NAPS-A-2	NDR	NDR	NDR	0.12 +/- 0.015

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1³¹	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	901 +/- 142
SPS-W-2³²											
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	901 +/- 225
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	6456 +/- 403
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	751 +/- 142
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5931 +/- 348

³¹ Due to water sampler malfunction, grab sample was collected.

³² Due to Robious Landing boat ramp closure, sample was not collected.

Virginia Department of Health
Week 37: 09/08/20 – 09/14/20³³

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
SPS-A-2	NDR	NDR	NDR	0.02 +/- 0.004
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.008
NAPS-A-1	NDR	NDR	NDR	0.06 +/- 0.009
NAPS-A-2	NDR	NDR	NDR	0.07 +/- 0.010

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ³⁴	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	

³³ Due to the LSC malfunctioning, samples were not analyzed for tritium.

³⁴ Due to water sampler malfunctioning, grab sample was collected.

Virginia Department of Health
Week 38: 09/14/20 – 09/21/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
SPS-A-2	NDR	NDR	NDR	0.02 +/- 0.004
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.006
NAPS-A-1	NDR	NDR	NDR	0.06 +/- 0.009
NAPS-A-2 ³⁵	NDR	NDR	NDR	0.05 +/- 0.007

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ³⁶	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 71
SPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4054 +/- 326
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
NAPS-W-3	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	3904 +/- 318

³⁶ Due to water sampler malfunctioning, grab sample was collected.

Virginia Department of Health

Week 39: 09/21/20 – 09/28/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.004
SPS-A-2 ³⁷	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1	NDR	NDR	NDR	0.04 +/- 0.007
NAPS-A-1	NDR	NDR	NDR	0.08 +/- 0.010
NAPS-A-2	NDR	NDR	NDR	0.06 +/- 0.008

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ³⁸	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	75 +/- 71
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4354 +/- 71
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4204 +/- 317

³⁷ Due to air sampler timer malfunctioning, time will be manually calculated until repaired.

³⁸ Due to water sampler malfunctioning, grab sample was collected.

Virginia Department of Health

Week 40: 09/28/20 – 10/05/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
SPS-A-2 ³⁹	NDR	NDR	NDR	0.03 +/- 0.006
PSP-A-1	NDR	NDR	NDR	0.05 +/- 0.007
NAPS-A-1	NDR	NDR	NDR	0.08 +/- 0.011
NAPS-A-2	NDR	NDR	NDR	0.08 +/- 0.010

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ⁴⁰	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 71
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5330 +/- 356
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5255 +/- 370

³⁹ Due to air sampler timer malfunctioning, time will be manually calculated until repaired.

⁴⁰ Due to water sampler malfunctioning, grab sample was collected.

Virginia Department of Health
Week 41: 10/05/20 – 10/12/20⁴¹

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-4											
NAPS-W-1											

⁴¹ Due to UPS replacement, samples were not collected, air samples will run for 2 weeks.

Virginia Department of Health
Week 42: 10/12/20 – 10/19/20⁴²

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
SPS-A-2 ⁴³	NDR	NDR	NDR	0.02 +/- 0.003
PSP-A-1	NDR	NDR	NDR	0.03 +/- 0.004
NAPS-A-1	NDR	NDR	NDR	0.05 +/- 0.006
NAPS-A-2	NDR	NDR	NDR	0.04 +/- 0.006

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ⁴⁴	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 72
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 72
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 72
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5330 +/- 379
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	150 +/- 72
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5030 +/- 365

⁴² Due to servicing of UPS 10/12, air samplers ran for 2 weeks, grab water samples collected.

⁴³ Due to air sampler timer malfunctioning, time will be manually calculated until repaired.

⁴⁴ Due to water sampler malfunctioning, grab sample was collected.

Virginia Department of Health
Week 43: 10/19/20 – 10/26/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.01 +/- 0.003
SPS-A-2 ⁴⁵	NDR	NDR	NDR	0.01 +/- 0.003
PSP-A-1	NDR	NDR	NDR	0.02 +/- 0.004
NAPS-A-1	NDR	NDR	NDR	0.03 +/- 0.005
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.004

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1 ⁴⁶	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 122
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 100
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 71
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	6832 +/- 400
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR

⁴⁵ Due to air sampler timer malfunctioning, time will be manually calculated until repaired.

⁴⁶ Due to water sampler malfunctioning, grab sample was collected.

Virginia Department of Health
Week 44: 11/02/20 – 11/09/20⁴⁷

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-4											

⁴⁷ Due to holiday, 11/3, samples were not collected, air samples will run for two weeks.

Virginia Department of Health
Week 45: 11/09/20 – 11/16/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.04 +/- 0.005
SPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005
PSP-A-1 ⁴⁸				
NAPS-A-1	NDR	NDR	NDR	0.08 +/- 0.010
NAPS-A-2	NDR	NDR	NDR	0.07 +/- 0.009

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	526 +/- 101
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	225 +/- 71
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	300 +/- 101
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	4580 +/- 342
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR

⁴⁸ Due to air sampler being serviced, no sample was collected.

Virginia Department of Health
Week 46: 11/16/20 - 11/23/20⁴⁹

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	450 +/- 101
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	375 +/- 101
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	6156 +/- 384
NAPS-W-2 ⁵⁰											
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5931 +/- 377

⁴⁹ Due to iMatic malfunction, samples were not collected.

⁵⁰ Due to weather related road closing, sample was not collected.

Virginia Department of Health
Week 47: 11/23/20 – 11/30/20 ⁵¹

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-4											

⁵¹ Due to Thanksgiving Holiday, 11/26, samples were not collected.

Virginia Department of Health

Week 48: 11/30/20 – 12/07/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
SPS-A-2	NDR	NDR	NDR	0.02 +/- 0.003
PSP-A-1 ⁵²				
NAPS-A-1	NDR	NDR	NDR	0.03 +/- 0.004
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.004

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1426 +/- 504
NAPS-W-2 ⁵³											
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	1502 +/- 509

⁵² Due to air sampler being serviced, no sample was collected.

⁵³ Due to weather related road closing, sample was not collected.

Virginia Department of Health

Week 49: 12/07/20 – 12/14/20

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1	NDR	NDR	NDR	0.02 +/- 0.003
SPS-A-2	NDR	NDR	NDR	0.02 +/- 0.003
PSP-A-1 ⁵⁴				
NAPS-A-1	NDR	NDR	NDR	0.02 +/- 0.004
NAPS-A-2	NDR	NDR	NDR	0.03 +/- 0.005

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	976 +/- 142
SPS-W-2 ⁵⁵											
SPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 123
NAPS-W-1	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5706 +/- 369
NAPS-W-2	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	601 +/- 123
NAPS-W-4	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	NDR	5781 +/- 369

⁵⁴ Due to air sampler being serviced, no sample was collected.

⁵⁵ Due to weather related flooding, sample was not collected.

Virginia Department of Health
Week 50: 12/14/20 – 12/21/20 ⁵⁶

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-4											

⁵⁶ Due to Inspector 2000 hardware malfunction, samples were not collected.

Virginia Department of Health
Week 51: 12/21/19 - 12/28/20⁵⁷

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity - pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-4											

⁵⁷ Due to Inspector 2000 hardware malfunction, samples were not collected.

Virginia Department of Health
Week 52: 12/28/20 – 01/04/21⁵⁸

Air

Site	Gamma & Radiogas in Air			Air Particulate
	I-131 Activity pCi/meter ³	Cs-134 Activity pCi/meter ³	Cs-137 Activity pCi/meter ³	Gross Beta Activity pCi/meter ³
SPS-A-1				
SPS-A-2				
PSP-A-1				
NAPS-A-1				
NAPS-A-2				

Water

Site	Gamma and Tritium Activity – pCi/Liter										
	Mn 54	Co 58	Fe 59	Co 60	Zn 65	Zr 95	I 131	Cs 134	Cs 137	Ba 140	H3 Activity
SPS-W-1											
SPS-W-2											
SPS-W-4											
NAPS-W-1											
NAPS-W-2											
NAPS-W-4											

⁵⁸ Due to Inspector 2000 hardware malfunction, samples were not collected.

Virginia Department of Health

SURFACE WATER

January 1, 2020 through December 31, 2020

Newport News Shipbuilder⁵⁹

Qtr.	Date collected	Gamma Activity – pCi/liter					
		Ba-140	Cs-137	I-131	Mn-54	Zn-65	Zr95/Nb95
1st							
2nd							
3rd							
4th							

James River – Shipway #11 NNSB-W-2

Qtr.	Date collected	Gamma Activity – pCi/liter					
		Ba-140	Cs-137	I-131	Mn-54	Zn-65	Zr95/Nb95
1st							
2nd							
3rd							
4th							

⁵⁹ Due to COVID19 Executive Order, water samples are not being collected until further notice.

Virginia Department of Health

SURFACE WATER

January 1, 2020 through December 31, 2020

Norfolk Naval Shipyard⁶⁰

Elizabeth River – Dry Dock #4
Norfolk Naval Shipyard NNSY-W-1

Qtr.	Date collected	Gamma Activity – pCi/liter				
1st		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
2nd		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
3rd		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
4th		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				

⁶⁰ Due to COVID19 Executive Order, water samples are not being collected until further notice.

Virginia Department of Health

SURFACE WATER

January 1, 2020 through December 31, 2020

Norfolk Naval Shipyard⁶¹

Elizabeth River – Dry Dock #8
Norfolk Naval Shipyard NNSY-W-2

Qtr.	Date collected	Gamma Activity – pCi/liter				
1st		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
2nd		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
3rd		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
4th		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				

⁶¹ Due to COVID19 Executive Order, water samples are not being collected until further notice.

Virginia Department of Health

SURFACE WATER

January 1, 2020 through December 31, 2020

Norfolk Naval Shipyard⁶²

Elizabeth River – Wet Slip #1
Norfolk Naval Shipyard NNSY-W-3

Qtr.	Date collected	Gamma Activity – pCi/liter				
1st		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
2nd		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
3rd		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				
4rd		Ba-140	Cs-137	I-131	Mn-54	Zn-65
		Zr95/Nb95				

⁶² Due to COVID19 Executive Order, water samples are not being collected until further notice.

Virginia Department of Health SILT

January 1, 2020 through December 31, 2020

Newport News Shipbuilder⁶³

Location	Date Collected	Gamma Activity pCi/gram			
James River – Pier 1 NNSB-S-1		Cs-134	Cs-137	Co-58	Co-60
James River – Pier 1 NNSB-S-1		Cs-134	Cs-137	Co-58	Co-60
James River – Pier 1 NNSB-S-1		Cs-134	Cs-137	Co-58	Co-60
James River – Pier 1 NNSB-S-1		Cs-134	Cs-137	Co-58	Co-60

⁶³ Due to COVID19 Executive Order, silt samples are not being collected until further notice.

Virginia Department of Health SILT

January 1, 2020 through December 31, 2020

Newport News Shipbuilder⁶⁴

Location	Date Collected	Gamma Activity pCi/gram			
James River – Shipway 11 NNSB-S-2		Cs-134	Cs-137	Co-58	Co-60
James River – Shipway 11 NNSB-S-2		Cs-134	Cs-137	Co-58	Co-60
James River – Shipway 11 NNSB-S-2		Cs-134	Cs-137	Co-58	Co-60
James River – Shipway 11 NNSB-S-2		Cs-134	Cs-137	Co-58	Co-60

⁶⁴ Due to COVID19 Executive Order, silt samples are not being collected until further notice.

Virginia Department of Health SILT

January 1, 2020 through December 31, 2020

Norfolk Naval Shipyard⁶⁵

Location	Date Collected	Gamma Activity pCi/gram		
Elizabeth River Drydock #4 NNSY-S-1	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #4 NNSY-S-1	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #4 NNSY-S-1	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #4 NNSY-S-1	Cs134	Cs137	Co58	Co60

⁶⁵ Due to COVID19 Executive Order, silt samples are not being collected until further notice.

Virginia Department of Health SILT

January 1, 2020 through December 31, 2020

Norfolk Naval Shipyard⁶⁶

Location	Date Collected	Gamma Activity pCi/gram		
Elizabeth River Drydock #8 NNSY-S-2	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #8 NNSY-S-2	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #8 NNSY-S-2	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #8 NNSY-S-2	Cs134	Cs137	Co58	Co60

⁶⁶ Due to COVID19 Executive Order, site samples are not being collected until further notice.

Virginia Department of Health

SILT⁶⁷

January 1, 2020 through December 31, 2020

Location	Date Collected	Gamma Activity		
		pCi/gram		
Elizabeth River Wet Slip #1				
NNSY-S-3	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #8				
NNSY-S-3	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #8				
NNSY-S-3	Cs134	Cs137	Co58	Co60
Elizabeth River Drydock #8				
NNSY-S-3	Cs134	Cs137	Co58	Co60

⁶⁷ Due to COVID19 Executive Order, silt samples are not being collected until further notice.

Virginia Department of Health

SILT

January 1, 2020 through December 31, 2020

North Anna Power Station Discharge Canal, North Anna River – NAPS-S-1

Date Collected	Gamma Activity pCi/gram			
	Cs-134	Cs-137	Co-58	Co-60
03/30/20	NDR	NDR	NDR	NDR
Date Collected	Gamma Activity pCi/gram			
	Cs-134	Cs-137	Co-58	Co-60
10/14/20	NDR	NDR	NDR	NDR

Surry Power Station Discharge Canal SPS-S-1

Date Collected	Gamma Activity pCi/gram			
	Cs-134	Cs-137	Co-58	Co-60
02/13/2019	NDR	NDR	NDR	NDR
Date Collected	Gamma Activity pCi/gram			
	Cs-134	Cs-137	Co-58	Co-60
08/03/2020	NDR	NDR	NDR	NDR

Note: Silt samples are collected bi-annually.

Virginia Department of Health

FISH

January 1, 2020 through December 31, 2020

Dominion Nuclear Power Station

Location Type of fish	Date Collected	Isotope	pCi/gram
North Anna Cooling Lagoon	05/12/2018	Ba-140	<0.21 pCi/g
		Cs-134	<0.01 pCi/g
		Cs-137	<0.01 pCi/g
		Co-58	<0.01 pCi/g
		Co-60	<0.01 pCi/g
		I-131	<0.18 pCi/g
		Fe-59	<0.03 pCi/g
		Mn-54	<0.01 pCi/g
		Ru-106	<0.08 pCi/g
		Ag-110M	<0.01 pCi/g
		Zn-65	<0.02 pCi/g
		Nb-95	<0.02 pCi/g
Surry Discharge Canal	04/06/20	Ba-140	<0.04 pCi/g
		Cs-134	<0.01 pCi/g
		Cs-137	<0.01 pCi/g
		Co-58	<0.01 pCi/g
		Co-60	<0.01 pCi/g
		I-131	<0.02 pCi/g
		Fe-59	<0.01 pCi/g
		Mn-54	<0.01 pCi/g
		Ru-106	<0.03 pCi/g
		Ag-110M	<0.01 pCi/g
		Zn-65	<0.01 pCi/g
		Nb-95	<0.01 pCi/g

Note: Fish samples collected bi-annually

Virginia Department of Health FISH

January 1, 2020 through December 31, 2020

Dominion Nuclear Power Station

Location Type of fish	Date Collected	Isotope	pCi/gram
North Anna Cooling Lagoon	11/16/20	Ba-140	<0.30 pCi/g
		Cs-134	<0.01 pCi/g
		Cs-137	<0.01 pCi/g
		Co-58	<0.01 pCi/g
		Co-60	<0.01 pCi/g
		I-131	<0.2 pCi/g
		Fe-59	<0.03 pCi/g
		Mn-54	<0.01 pCi/g
		Ru-106	<0.10 pCi/g
		Ag-110	<0.01 pCi/g
		Zn-65	<0.03 pCi/g
		Nb-95	<0.02 pCi/g
NAPS- F-1 (Fish)	10/06/20	Ba-140	<0.03 pCi/g
		Cs-134	<0.01 pCi/g
		Cs-137	<0.01 pCi/g
		Co-58	<0.01 pCi/g
		Co-60	<0.01 pCi/g
		I-131	<0.01 pCi/g
		Fe-59	<0.01 pCi/g
		Mn-54	<0.01 pCi/g
		Ru-106	<0.03 pCi/g
		Ag-110M	<0.01 pCi/g
		Zn-65	<0.01 pCi/g
		Nb-95	<0.01 pCi/g

Note: Fish samples collected bi-annually

Virginia Department of Health

SHELLFISH

January 1, 2020 through December 31, 2020

Dominion Nuclear Power Station

Location Type of fish	Date Collected	Isotope	pCi/gram
Surry Power Station	03/17/20	Ba-140	<0.08 pCi/g
		Cs-134	<0.01 pCi/g
		Cs-137	<0.01 pCi/g
		Co-58	<0.01 pCi/g
		Co-60	<0.01 pCi/g
SPS-R-1		I-131	<0.07 pCi/g
(Clams and Oysters)		Fe-59	<0.01 pCi/g
		Mn-54	<0.01 pCi/g
		Ru-106	<0.03 pCi/g
		Ag-110M	<0.01 pCi/g
		Zn-65	<0.01 pCi/g
		Nb-95	<0.01 pCi/g

Note: Shellfish are collected annually when available.

Virginia Department of Health

Milk

January 1, 2020 through December 31, 2020

Surry County - Epps Dairy SPS-M-1 1st Quarter Date: 01/14/20		
	Isotope	Results - pCi/liter
	Ba-140	< 12.0 pCi/L
	Cs-134	< 3.0 pCi/L
	Cs-137	< 2.0 pCi/L
	K-40	1.5 +/- 0.1 g/L
	I-131	< 3.0 pCi/L
	Sr-89	< 4.0 pCi/L
	Sr-90	0.38 +/- 0.3 pCi/L
Surry County - Epps Dairy SPS-M-1 2nd Quarter Date: ⁶⁸		
	Isotope	Results - pCi/liter
	Ba-140	
	Cs-134	
	Cs-137	
	K-40	
	I-131	
	Sr-89	
	Sr-90	
Surry County - Epps Dairy SPS-M-1 3rd Quarter Date: 07/01/20		
	Isotope	Results - pCi/liter
	Ba-140	< 15.0 pCi/L
	Cs-134	< 3.0 pCi/L
	Cs-137	< 4.0 pCi/L
	K-40	1.6 ± 0.1 g/L
	I-131	< 5.0 pCi/L
	Sr-89	< 4.0 pCi/L
	Sr-90	<0.53 ± 0.43 pCi/L

⁶⁸ Due to COVID19 Executive Order, sample was not collected.

Virginia Department of Health

Milk

January 1, 2020 through December 31, 2020

Surry County - Epps Dairy	
SPS-M-1 ⁶⁹	
4th Quarter Date: 10/03/19	
Isotope	Results - pCi/liter
Ba-140	
Cs-134	
Cs-137	
K-40	
I-131	
Sr-89	
Sr-90	

⁶⁹ Per VDAC, milk sample schedule will be collected biannually, sample not collected.

Virginia Department of Health

VEGETATION

January 1, 2020 through December 31, 2020

Location	Date collected	Type	Isotope	Results pCi/Gram (wet weight)
Surry County				
Private garden SPS-V-1	2nd Quarter ⁷⁰	Mixed Greens	I-131	
			Cs-134	
			Cs-137	
Louisa County				
Private Garden NAPS-V-1	2nd Quarter ⁷¹	Mixed Greens	I-131	
			Cs-134	
			Cs-137	
Surry County				
Private garden SPS-V-1	4th Quarter 10/26/20	Mixed Greens	I-131	NDR
			Cs-134	NDR
			Cs-137	NDR
Louisa County				
Private Garden NAPS-V-1	4th Quarter 10/26/2020	Mixed Greens	I-131	NDR
			Cs-134	NDR
			Cs-137	NDR

Note: Vegetation is collected bi-annually when available.

⁷⁰ Due to the COVID19 Executive Order, Vegetation was not collected.

⁷¹ Due to the COVID19 Executive Order, Vegetation was not collected.

Virginia Department of Health

AMBIENT GAMMA EXPOSURE

December 17, 2020 through March 24, 2020

FIRST QUARTER

Location	Station	Net Exposure Rate mR/Std Qtr +/- 2S.D.		
Jamestown – Historical site	SPS-D-1	31.97	+/-	11.31
Williamsburg – Airport	SPS-D-2	23.87	+/-	9.77
Williamsburg – Busch Gardens	SPS-D-3	35.75	+/-	11.96
Newport News - Lee Hall	SPS-D-4	33.80	+/-	11.63
Naval Weapons Station – 1	SPS-D-5	22.50	+/-	9.49
Newport News – Fort Eustis	SPS-D-6	25.90	+/-	10.18
Surry – Route 628	SPS-D-7	19.58	+/-	8.85
Surry – Lawnes Creek	SPS-D-8	29.75	+/-	10.91
Surry Power Station	SPS-D-9	28.34	+/-	10.65
Surry – Hog Point	SPS-D-10	26.15	+/-	10.23
Surry – Bacon's Castle	SPS-D-11	22.44	+/-	9.47
Surry – Alliance	SPS-D-12	26.49	+/-	10.29
Surry – Scotland Wharf	SPS-D-13	25.12	+/-	10.02
Surry – Lebanon Baptist Church	SPS-D-14	23.64	+/-	9.72
Louisa County - Mineral	NAPS-D-1	28.27	+/-	10.63
Louisa County – Wares Crossroads	NAPS-D-2	27.61	+/-	10.51
Spotsylvania – Good Hope Church	NAPS-D-3	30.82	+/-	11.10
Spotsylvania – Route 713	NAPS-D-4	27.90	+/-	10.56
Spotsylvania Route 614	NAPS-D-5	26.49	+/-	10.29
Spotsylvania – Levy	NAPS-D-6	32.57	+/-	11.41
Louisa County – Bumpass Fire Dept.	NAPS-D-7	31.99	+/-	11.31
Louisa County – Fred Hall	NAPS-D-8	25.46	+/-	10.09
Louisa County – Aspen Hill	NAPS-D-9	32.88	+/-	11.47
Louisa County – Route 685	NAPS-D-10	29.33	+/-	10.83
Louisa County – Route 700	NAPS-D-11	35.90	+/-	11.98
North Anna Power Station	NAPS-D-12	36.08	+/-	12.01
Pocahontas State Park (Control)	PSP-D-1	45.39	+/-	13.47
Radiological Health	ORH-D-1	15.59	+/-	7.90

Radiological Health	ORH-D-2	15.91	+/-	7.98
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Virginia Department of Health AMBIENT GAMMA EXPOSURE

March 24, 2020 through June 18, 2020

SECOND QUARTER

Location	Station	Net Exposure Rate mR/Std Qtr +/- 2S.D.		
Jamestown – Historical site	SPS-D-1	25.36	+/-	10.07
Williamsburg – Airport	SPS-D-2	32.53	+/-	11.41
Williamsburg – Busch Gardens	SPS-D-3	34.34	+/-	11.72
Newport News - Lee Hall	SPS-D-4	39.10	+/-	12.51
Naval Weapons Station – 1	SPS-D-5	30.80	+/-	11.10
Newport News – Fort Eustis	SPS-D-6	27.72	+/-	10.53
Surry – Route 628	SPS-D-7	21.09	+/-	9.18
Surry – Lawnes Creek	SPS-D-8	29.89	+/-	10.93
Surry Power Station	SPS-D-9	27.43	+/-	10.48
Surry – Hog Point	SPS-D-10	27.32	+/-	10.45
Surry – Bacon's Castle	SPS-D-11	28.93	+/-	10.76
Surry – Alliance	SPS-D-12	27.67	+/-	10.52
Surry – Scotland Wharf	SPS-D-13	29.17	+/-	10.80
Surry – Lebanon Baptist Church	SPS-D-14	22.42	+/-	9.47
Louisa County - Mineral	NAPS-D-1	34.56	+/-	11.76
Louisa County – Wares Crossroads	NAPS-D-2	25.57	+/-	10.11
Louisa County – Good Hope Church	NAPS-D-3	35.97	+/-	11.99
Spotsylvania – Route 713	NAPS-D-4	29.50	+/-	10.86
Spotsylvania Route 614	NAPS-D-5	31.54	+/-	11.23
Spotsylvania – Levy	NAPS-D-6	32.79	+/-	11.45
Louisa County – Bumpass Fire Dep	NAPS-D-7	34.54	+/-	11.75
Louisa County – Fred Hall	NAPS-D-8	27.34	+/-	10.46
Louisa County – Aspen Hill	NAPS-D-9	37.20	+/-	12.20
Louisa County – Route 685	NAPS-D-10	33.87	+/-	11.64
Louisa County – Route 700	NAPS-D-11	35.66	+/-	11.94
North Anna Power Station	NAPS-D-12	38.07	+/-	12.34
Pocahontas State Park (Control)	PSP-D-1	42.88	+/-	13.10
Radiological Health	ORH-D-1	16.89	+/-	8.22

Radiological Health	ORH-D-2	18.57	+/-	8.62
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Virginia Department of Health AMBIENT GAMMA EXPOSURE

June 18, 2020 through October 22, 2020

THIRD QUARTER

Location	Station	Net Exposure Rate mR/Std Qtr +/- 2S.D.		
Jamestown – Historical site	SPS-D-1	30.83	+/-	5.55
Williamsburg – Airport	SPS-D-2	24.02	+/-	4.90
Williamsburg – Busch Gardens	SPS-D-3	33.27	+/-	5.77
Newport News - Lee Hall	SPS-D-4	34.92	+/-	5.91
Naval Weapons Station – 1	SPS-D-5	23.85	+/-	4.88
Newport News – Fort Eustis	SPS-D-6	28.28	+/-	5.32
Surry – Route 628	SPS-D-7	18.87	+/-	4.34
Surry – Lawnes Creek	SPS-D-8	30.65	+/-	5.54
Surry Power Station	SPS-D-9	27.51	+/-	5.24
Surry – Hog Point	SPS-D-10	23.44	+/-	4.84
Surry – Bacon’s Castle	SPS-D-11	23.60	+/-	4.86
Surry – Alliance	SPS-D-12	25.70	+/-	5.07
Surry – Scotland Wharf	SPS-D-13	23.37	+/-	4.83
Surry – Lebanon Baptist Church	SPS-D-14	23.85	+/-	4.88
Louisa County - Mineral	NAPS-D-1	29.95	+/-	5.47
Louisa County – Wares Crossroads	NAPS-D-2	24.58	+/-	4.96
Louisa County – Good Hope Church	NAPS-D-3	33.89	+/-	5.82
Spotsylvania – Route 713	NAPS-D-4	27.76	+/-	5.27
Spotsylvania Route 614	NAPS-D-5	27.90	+/-	5.28
Spotsylvania – Levy	NAPS-D-6	30.27	+/-	5.50
Louisa County – Bumpass Fire Dept.	NAPS-D-7	31.39	+/-	5.60
Louisa County – Fred Hall	NAPS-D-8	25.21	+/-	5.02
Louisa County – Aspen Hill	NAPS-D-9	37.80	+/-	6.15
Louisa County – Route 685	NAPS-D-10	27.60	+/-	5.25
Louisa County – Route 700	NAPS-D-11	33.96	+/-	5.83
North Anna Power Station	NAPS-D-12	32.70	+/-	5.72
Pocahontas State Park (Control)	PSP-D-1	42.19	+/-	6.50
Radiological Health	ORH-D-1	16.08	+/-	4.01

Radiological Health	ORH-D-2	16.20	+/-	4.03
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Virginia Department of Health AMBIENT GAMMA EXPOSURE

October 22, 2020 to January 05, 2021

FOURTH QUARTER

Location	Station	Net Exposure Rate mR/Std Qtr +/- 2S.D.		
Jamestown – Historical site	SPS-D-1	24.66	+/-	4.97
Williamsburg – Airport	SPS-D-2	30.22	+/-	5.50
Williamsburg – Busch Gardens	SPS-D-3	31.36	+/-	5.60
Newport News - Lee Hall	SPS-D-4	41.00	+/-	6.40
Naval Weapons Station – 1	SPS-D-5	29.62	+/-	5.44
Newport News – Fort Eustis	SPS-D-6	27.18	+/-	5.21
Surry – Route 628	SPS-D-7	23.01	+/-	4.80
Surry – Lawnes Creek	SPS-D-8	33.40	+/-	5.78
Surry Power Station	SPS-D-9	27.09	+/-	5.20
Surry – Hog Point	SPS-D-10	26.57	+/-	5.15
Surry – Bacon’s Castle	SPS-D-11	27.87	+/-	5.28
Surry – Alliance	SPS-D-12	26.98	+/-	5.19
Surry – Scotland Wharf	SPS-D-13	26.95	+/-	5.19
Surry – Lebanon Baptist Church	SPS-D-14	27.93	+/-	5.28
Louisa County - Mineral	NAPS-D-1	37.60	+/-	6.13
Louisa County – Wares Crossroads	NAPS-D-2	26.40	+/-	5.14
Louisa County – Good Hope Church	NAPS-D-3	34.52	+/-	5.88
Spotsylvania – Route 713	NAPS-D-4	29.53	+/-	5.43
Spotsylvania Route 614	NAPS-D-5	30.36	+/-	5.51
Spotsylvania – Levy	NAPS-D-6	33.49	+/-	5.79
Louisa County – Bumpass Fire Dept.	NAPS-D-7	34.29	+/-	5.86
Louisa County – Fred Hall	NAPS-D-8	27.96	+/-	5.29
Louisa County – Aspen Hill	NAPS-D-9	38.50	+/-	6.20
Louisa County – Route 685	NAPS-D-10	34.79	+/-	5.90
Louisa County – Route 700	NAPS-D-11	37.33	+/-	6.11
North Anna Power Station	NAPS-D-12	40.16	+/-	6.34
Pocahontas State Park (Control)	PSP-D-1	45.28	+/-	6.73
Radiological Health	ORH-D-1	15.46	+/-	3.93

COMMONWEALTH OF VIRGINIA

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BABCOCK & WILCOX

Virginia Department of Health

AIR PARTICULATE COMPOSITE SAMPLES

January 1, 2020 through December 31, 2020

Eastern Site Boundary – Ball field

FIRST QUARTER REPORT

	Start	Date	Stop	Gross Alpha Activity pCi/meter ³
B&W-A-1				
1st	01/08/2020	-	01/14/2020	0.002

SECOND QUARTER REPORT

	Start	Date	Stop	Gross Alpha Activity pCi/meter ³
B&W-A-1				
2nd	04/08/2020		04/14/2020	0.001

THIRD QUARTER REPORT

	Start	Date	Stop	Gross Alpha Activity pCi/meter ³
B&W-A-1				
3rd	07/01/2020	-	07/07/2020	0.001

FOURTH QUARTER REPORT

	Start	Date	Stop	Gross Alpha Activity pCi/meter ³
B&W-A-1				
4th	10/07/20	-	10/13/20	0.001

Virginia Department of Health SOIL

January 1, 2020 through December 31, 2020

Location	Date	Distance & Direction	Type	Alpha Activity Ppm
Eastern Site Boundary Ball field B&W-S-1	09/24/20	Site Boundary	Soil	<1.0
James River Shoreline Near Six Mile Bridge "control" B&W-S-2	09/28/20	1.5 miles SW	Soil	<1.0

Soil samples collected annually.

Note: Uranium separation followed by alpha counting.

SURFACE WATER

January 1, 2020 through December 31, 2020

Location	Date	Distance & Direction	Alpha Activity Ppb
James River Shoreline Near Ball field at eastern site boundary B&W-W-1	09/24/20	Approx. 3 miles downstream	<2.0
James River Shoreline Near Six Mile Bridge "control" B&W-W-2	09/24/20	Approx. 1.5 miles upstream	<2.0

Surface water samples collected annually.

Note: Uranium separation followed by alpha counting.

Virginia Department of Health

VEGETATION

January 1, 2020 through June 30, 2020

Eastern Site Boundary / James River Shoreline

Location	Date	Distance & Direction	Alpha Activity ppm
Eastern site boundary Ball field B&W-V-1	09/24/20	Approx. 3 miles downstream	<1.0
James River Shoreline off Rt. 460 "control" B&W-V-2	09/24/20	Approx. 4.5 Miles SW	<1.0

Vegetation collected annually.

Note: Uranium separation followed by alpha counting.

COMMONWEALTH OF VIRGINIA
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EMERGENCY PREPAREDNESS

EMERGENCY PREPAREDNESS

The Office of Radiological Health (ORH) located within the Virginia Department of Health (VDH) is one of the lead response agencies for emergencies involving the potential or actual release of radioactive materials. Overall, state level emergency response is described in the Commonwealth of Virginia Radiological Emergency Response Plan (COVERERP), which is developed and maintained by the Virginia Department of Emergency Management (VDEM). In addition to generic guidelines for responding to any major radiological emergency, the response procedures contain segments addressing response to several specific types of radiological incidents. This includes sections which provide information needed for response to Licensee and Transportation accidents. Other sections contain background information and response guidance for accidents at fixed nuclear facilities. Plans are also being developed to respond to possible radiological terrorist attacks, which may include detonation of a radiological dispersion device (RDD aka “dirty bomb”), an improvised nuclear device (IND), or a military grade nuclear warhead.

When responding to any radiological emergency, the primary tasks of the Office of Radiological Health are to locate, identify, and predict the impact of any radioactive materials released to the environment. Based on the predicted or known impact, ORH then recommends appropriate measures to protect the public. ORH would also be tasked with helping to supervise the cleanup of radiological contamination and ensuring the proper disposal of radioactive waste. An ORH duty officer maintains 24-hour coverage to provide initial assessment/assistance for local responders and may also initiate the mobilization/deployment of other trained staff to respond to a radiological emergency when needed.

Under the provisions of current Federal Emergency Management Agency (FEMA) regulations, ORH conducts or participates in periodic drills that are designed to provide team training and to test emergency plans and procedures. The scope of these drills ranges from receiving and acknowledging simulated emergency communications to full-scale team deployment.

Federal regulations for commercial nuclear power generating facilities stipulate that a full-scale exercise involving appropriate local government participation and testing all significant response elements must be conducted and evaluated every other year. Because there are two such facilities, Surry and North Anna Nuclear Power Stations, Commonwealth of Virginia agencies will perform exercise activities on a yearly basis, alternating between the sites each year.