# Results of Nuclide Analyses of Sub-drain Water nearby Centralized Radiation Waste Treatment Facility (1/3)

## $I-131(Bq/cm^3)$

Place of		Before	transfer													After t	ransfer											
sampling	4/16	4/17	4/18	4/19	4/20	4/21	4/22	4/23	4/24	4/25	4/26	4/27	4/28	4/29	4/30	5/1	5/2	5/3	5/4	5/5	5/6	5/7	5/8	5/9	5/10	5/11	5/12	5/13
	-	0.83	0.54	0.32	0.15	2.1	-	0.21	0.18	0.093	0.074	0.049	0.06	0.032	0.025	0.008	0.012	0.018	0.022	0.012	0.016	ND	ND	ND	0.008	ND	ND	0.16
	0.13	0.11	0.11	0.087	0.11	0.11	0.11	0.19	0.16	0.21	0.19	0.18	0.16	0.16	0.16	0.12	0.095	0.089	0.098	0.09	0.11	0.081	0.075	0.065	0.063	0.053	0.046	0.04
	-	-	-	0.038	0.053	0.06	0.056	0.051	0.035	0.031	0.028	0.023	0.027	0.022	0.021	0.012	0.023	0.017	0.023	0.03	0.028	0.016	0.019	0.018	0.017	0.014	0.012	0.015
	0.091	-	0.12	-	-	-	-	-	-	0.045	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.5	0.35	0.42	0.34	0.33	0.15	0.069	0.15	0.78	0.23	0.13	0.12	0.19	0.083	0.062	0.051	0.054	0.022	0.019	0.018	0.027	0.023	0.051	0.018	0.052	0.043	0.03	0.05
	-	-	-	-	-	-	-	-	-	-	-	-	-	0.059	-	-	0.056	-	-	-	-	-	-	0.027	-	-	-	-

#### $Cs-134(Bg/cm^3)$

Place of		Before	transfer													After t	ransfer											
sampling	4/16	4/17	4/18	4/19	4/20	4/21	4/22	4/23	4/24	4/25	4/26	4/27	4/28	4/29	4/30	5/1	5/2	5/3	5/4	5/5	5/6	5/7	5/8	5/9	5/10	5/11	5/12	5/13
	-	0.083	0.076	0.097	0.096	0.48	-	0.22	0.15	0.12	0.12	0.12	0.21	0.12	0.15	0.065	0.1	0.14	0.09	0.086	0.062	0.041	0.06	0.053	0.11	0.025	0.041	0.15
	ND	0.048	0.033	0.046	0.071	0.024	0.026	ND	0.025	0.025	0.02	0.022	0.045	0.031	0.014	ND	0.021	ND	ND	ND	0.21	ND	ND	ND	ND	0.02	0.011	0.029
	-	-	-	0.007	0.012	0.047	ND	0.023	0.03	ND	ND	ND	0.035	ND	0.018	0.009	0.028	ND	0.013	ND	ND	ND	0.007	ND	ND	0.01	ND	0.15
	0.037	-	0.016	-	-	-	-	-	-	0.015	=	=	-	-	-	=	=	=	=	=	-	-	=	-	-	-	-	-
	0.45	0.3	0.19	0.073	0.092	0.099	0.066	0.077	0.15	0.054	0.054	0.07	0.071	0.045	0.06	0.062	0.082	0.046	0.043	0.044	0.058	0.058	0.085	0.061	0.096	0.1	0.09	0.12
	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-	-	0.031	-	-	-	-	-	-	0.037	-	-	-	-

## $Cs-137(Bq/cm^3)$

Place of		Before	transfer													After t	ransfer											
sampling	4/16	4/17	4/18	4/19	4/20	4/21	4/22	4/23	4/24	4/25	4/26	4/27	4/28	4/29	4/30	5/1	5/2	5/3	5/4	5/5	5/6	5/7	5/8	5/9	5/10	5/11	5/12	5/13
	-	0.11	0.093	0.095	0.095	0.51	-	0.24	0.16	0.13	0.12	0.13	0.23	0.13	0.17	0.078	0.11	0.15	0.092	0.099	0.049	0.025	0.073	0.046	0.11	0.045	0.045	0.17
	ND	0.042	0.031	0.037	0.072	0.038	0.032	0.022	0.019	0.027	0.023	0.031	0.033	0.022	0.014	ND	0.028	0.021	0.022	ND	0.23	ND	ND	0.008	ND	ND	0.011	0.033
	-	-	-	ND	0.016	0.043	0.023	ND	0.029	0.014	ND	0.022	0.032	ND	0.021	0.008	0.03	ND	0.01	ND	ND	ND	ND	ND	0.01	0.015	0.03	0.15
	0.033	-	0.013	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.45	0.32	0.21	0.079	0.08	0.1	0.075	0.082	0.15	0.055	0.049	0.082	0.067	0.068	0.042	0.047	0.093	0.05	0.057	0.041	0.063	0.073	0.095	0.046	0.12	0.1	0.1	0.12
	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	-	-	0.035	-	-	-	-	-	-	0.023	-	-	-	-

- \* Hyphen "-" indicates that neither sampling nor measurements were implemented.
- \* Data on April 19 was treated as one before transfer since it was sampled just two hours after transfer so that small amout of water was transferred to the Process Main Building.
- \* Sampling at Southwest part of the Process Main Building ( ) was conducted once a week upto April 25 since it is located upper side of the groundwater.
- \* Sampling at Southwest part of the On-site Bunker Building ( ) was conducted as upper side of the groundwater once a week from April 29 since it turned unable to sample at Southwest of the Process Main Building ( ).

## <Place of sampling>

Southeast part of Unit 4 Turbine Building

Northeast part of Process Main Building

Southeast part of Process Main Building

Southwest part of Process Main Building

South part of Miscellaneous Solid Waste Volume Reduction Treatment Building

Southwest part of On-site Bunker Building

# Results of Nuclide Analyses of Sub-drain Water nearby Centralized Radiation Waste Treatment Facility (2/3)

## $I-131(Bq/cm^3)$

Place of														After t	ransfer													
sampling	5/14	5/15	5/16	5/17	5/18	5/19	5/20	5/21	5/22	5/23	5/24	5/25	5/26	5/27	5/28	5/29	5/30	5/31	6/1	6/2	6/3	6/4	6/5	6/6	6/7	6/8	6/9	6/10
	0.21	0.058	0.036	ND	0.014	0.008	ND	ND	ND	0.23	0.35	0.077	0.054	0.23	0.034	0.081	0.12	0.022	0.012	0.1	0.007							
	0.04	0.04	0.033	0.031	0.026	0.023	0.025	0.017	0.02	0.017	0.013	0.013	0.013	0.011	0.012	ND	0.015	0.016	0.017	0.012	0.009	ND	0.006	ND	0.006	ND	0.008	0.005
	0.019	ND	0.03	0.011	ND	0.009	0.006	ND	0.005	0.006	ND	ND	ND	ND	0.004	0.006	0.038	0.012	ND	0.006	ND							
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.055	0.054	0.047	0.043	0.046	0.05	0.034	0.03	0.029	0.025	0.033	0.021	0.023	0.015	0.016	0.041	0.021	ND	0.015	0.009	0.008	ND	0.01	ND	ND	0.012	0.011	0.006
	-	-	0.012	-	-	-	-	-	-	0.009	-	-	-	-	-	-	0.011	-	-	-	-	-	-	ND	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.16	0.14	0.11	0.12	0.14	0.051	0.039	0.046	0.092	0.037	0.042	0.034	0.024	0.041	0.02	0.019
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.014	0.018	0.012	0.011	0.016	ND	0.014	ND	0.005	ND	ND	ND

## $Cs-134(Bq/cm^3)$

Place of														After t	ransfer													
sampling	5/14	5/15	5/16	5/17	5/18	5/19	5/20	5/21	5/22	5/23	5/24	5/25	5/26	5/27	5/28	5/29	5/30	5/31	6/1	6/2	6/3	6/4	6/5	6/6	6/7	6/8	6/9	6/10
	2.6	0.11	0.08	0.06	0.062	0.081	0.046	0.056	0.067	0.047	0.055	0.021	0.033	0.043	0.059	0.024	0.15	0.18	0.95	0.07	0.16	0.055	0.078	0.099	0.072	0.029	0.13	0.043
	0.016	ND	0.011	ND	ND	0.007	0.025	ND	ND	ND	ND	ND	0.014	0.011	ND	0.022	0.028	ND	ND	0.008	0.007	ND	ND	ND	0.009	ND	ND	0.01
	0.022	ND	0.1	ND	ND	ND	0.033	ND	0.006	0.006	ND	ND	ND	0.017	0.009	0.01	0.11	0.019	ND	ND	0.007	0.007	ND	ND	ND	ND	ND	ND
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.13	0.12	0.13	0.13	0.15	0.13	0.14	0.11	0.14	0.12	0.13	0.12	0.13	0.12	0.14	0.19	0.13	0.031	0.057	0.064	0.059	0.035	0.061	0.038	0.08	0.12	0.11	0.05
	-	-	0.014	-	-	-	-	-	-	ND	-	-	-	-	-	-	0.081	-	-	-	-	-	-	ND	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.33	0.41	0.44	0.67	0.9	0.81	0.77	0.74	0.5	0.68	0.81	0.72	0.64	0.64	0.61	0.55
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.074	0.091	0.056	0.047	0.056	0.041	0.069	0.042	0.031	0.042	0.048	0.048

## $Cs-137(Bq/cm^3)$

CS-137(B	<u>,</u> , ,																											
Place of														After t	ransfer													
sampling	5/14	5/15	5/16	5/17	5/18	5/19	5/20	5/21	5/22	5/23	5/24	5/25	5/26	5/27	5/28	5/29	5/30	5/31	6/1	6/2	6/3	6/4	6/5	6/6	6/7	6/8	6/9	6/10
	2.9	0.13	0.085	0.078	0.049	0.096	0.06	0.049	0.063	0.051	0.062	0.027	0.045	0.039	0.067	0.028	0.16	0.21	1	0.095	0.17	0.061	0.096	0.12	0.079	0.035	0.13	0.055
	0.02	ND	0.009	ND	ND	ND	0.022	0.009	0.02	ND	ND	ND	0.015	0.01	ND	ND	ND	0.025	ND	0.013	0.01	ND	ND	ND	0.007	ND	ND	ND
	ND	0.025	0.098	ND	ND	ND	0.033	ND	ND	ND	0.013	ND	ND	0.011	ND	0.015	0.13	ND	ND	0.01	0.007	ND						
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.12	0.13	0.12	0.12	0.14	0.13	0.14	0.12	0.13	0.13	0.14	0.12	0.13	0.12	0.16	0.21	0.13	0.031	0.063	0.079	0.069	0.049	0.093	0.057	0.085	0.13	0.13	0.051
	-	-	0.011	-	-	-	-	-	-	ND	-	-	-	-	-	-	0.075	-	-	-	-	-	-	ND	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.35	0.43	0.46	0.72	0.95	0.84	0.85	0.77	0.51	0.72	0.85	0.78	0.73	0.69	0.67	0.59
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.075	0.099	0.064	0.066	0.068	0.037	0.068	0.051	0.027	0.049	0.047	0.051

- \* Hyphen "-" indicates that neither sampling nor measurements were implemented.
- \* Data on April 19 was treated as the one before transfer since it was sampled just two hours after transfer so that small amout of water was transferred to the Process Main Building.
- \* Sampling at Southwest part of the Process Main Building ( ) was conducted once a week upto April 25 since it is located at upstream of the groundwater.
- \* Sampling at Southwest part of the On-site Bunker Building ( ) was conducted as upstream of the groundwater once a week from April 29 since it was unable to sample at Southwest of the Process Main Building ( ).
- \* Additional sampling at was conducted since it is located at thd downstream of the groundwater.
- \* We have been sampling at since May 30.

#### <Place of sampling>

Southeast part of Unit 4 Turbine Building

Northeast part of Process Main Building

Southeast part of Process Main Building

Southwest part of Process Main Building

South part of Miscellaneous Solid Waste Volume Reduction Treatment Building

Southwest part of On-site Bunker Building

West part of Incineration Workshop Building

North part of Miscellaneous Solid Waste Volume Reduction Treatment Building

## Results of Nuclide Analyses of Sub-drain Water nearby Centralized Radiation Waste Treatment Facility (3/3)

## $I-131(Bq/cm^3)$

Place of													After	ransfer							
sampling	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21										
	0.007	ND	0.007	0.033	ND	0.016	0.009	ND	0.009	ND	ND										
	ND	ND	0.005	ND	ND	ND	0.004	ND	ND	ND	ND										
	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
	-	-	-	-	-	-	-	-	-	-	-										
	ND	ND	0.011	ND	ND	ND	ND	ND	0.006	ND	ND										
	-	-	0.004	-	-	-	-	-	-	ND	-										
	0.034	ND	0.021	ND	ND	0.029	ND	ND	0.014	0.017	0.019										
	0.004	0.006	0.006	ND	ND	ND	ND	ND	ND	ND	ND										

## $Cs-134(Bq/cm^3)$

Place of													After	ransfer							
sampling	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21										
	0.047	0.024	0.02	0.055	0.029	0.027	0.023	ND	0.022	ND	ND										
	ND	ND	0.01	0.009	ND																
	ND																				
	-	-	-	-	-	-	-	-	-	-	-										
	0.037	0.043	0.13	0.037	0.048	0.03	0.028	0.028	0.079	0.076	0.034										
	-	-	0.01	-	-	-	-	-	-	ND	-										
	0.29	0.59	0.2	0.54	0.37	0.41	0.66	0.69	0.21	0.28	0.42										
	0.043	0.068	0.043	0.037	0.048	0.038	0.027	0.024	0.025	0.027	0.065										

## $Cs-137(Bq/cm^3)$

Place of													After	transfer							
sampling	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21										
	0.045	0.022	0.024	0.066	ND	0.043	0.022	ND	0.018	ND	ND										
	ND	ND	ND	0.011	ND																
	ND																				
	-	-	-	-	-	-	-	-	-	-	-										
	0.04	0.058	0.15	0.046	0.059	0.026	0.033	0.04	0.084	0.085	0.039										
	-	-	0.009	-	-	-	-	-	-	ND	-										
	0.33	0.64	0.24	0.6	0.4	0.45	0.69	0.79	0.24	0.32	0.44										
	0.048	0.068	0.053	0.033	0.037	0.039	0.032	0.025	0.025	ND	0.077										

- \* Hyphen "-" indicates that neither sampling nor measurements were implemented.
- \* Data on April 19 was treated as the one before transfer since it was sampled just two hours after transfer so that small amout of water was transferred to the Process Main Building.
- \* Sampling at Southwest part of the Process Main Building ( ) was conducted once a week upto April 25 since it is located at upstream of the groundwater.
- \* Sampling at Southwest part of the On-site Bunker Building ( ) was conducted as upstream of the groundwater once a week from April 29 since it was unable to sample at Southwest of the Process Main Building ( ).
- \* ND indicates here that the result was below the detection limits of the radioactivity concentration of these analyses (I-131: approx. 0.01Bq/cm3, Cs-134: approx. 0.02Bq/cm3, and Cs-137: approx.
- 0.02Bq/cm3) (June 21). The limits differ by the shape of the detector / conditions of samples, so may be detected below these figures.
- \* Additional sampling at was conducted since it is located at thd downstream of the groundwater.
- \* We have been sampling at since May 30.

<Place of sampling>

Southeast part of Unit 4 Turbine Building

Northeast part of Process Main Building

Southeast part of Process Main Building

Southwest part of Process Main Building

South part of Miscellaneous Solid Waste Volume Reduction Treatment Building

Southwest part of On-site Bunker Building

West part of Incineration Workshop Building

North part of Miscellaneous Solid Waste Volume Reduction Treatment Building