June 1, 2011

# Results of Nuclide Analyses of Sub-drain Water nearby Centralized Radiation Waste Treatment Facility (1/2)

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

Place of	Before transfer					After transfer																						
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	-	-	-	-

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

Place of		transfer			After transfer																							
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 sampling													After t	ransfer														
	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 started as upper side of the groundwater once a week from April 29 since it was 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

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 (2/2)

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

1-131(Bd														After t	ranefor										
Place of sampling	E /1 4	E /1 E	F /1 C	E /1 7	5/18	F /10	F (00	E / 01	F / 0.0	F / 0 0	E /04	E /05	5/26			E / 0.0	5/30	F (21							
		0.058			0.014		<b>.</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND		<b>.</b>		 		 	 		
	0.04				0.026					0.017							0.015			 		 	 		
	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		 		 	 		
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		 		 	 		
	0.055	0.054		0.043	0.046	0.05	0.034	0.03	0.029	0.025	0.033	0.021	0.023	0.015	0.016			ND		 			 		<b>.</b>
	-	-	0.012	-	-	-	-	-	-	0.009	-	-	-	-	-	-	0.011	-		 			 		l
	-	-	-	-	-	-	-	-	-	-	-	-	0.16	0.14	0.11	0.12		0.051		 		 	 		<b>.</b>
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.014	0.018							I
Cs-134(B	q/cm <sup>3</sup> )																								
Place of		After transfer   14 5/15 5/16 5/17 5/18 5/19 5/20 5/22 5/23 5/26 5/27 5/28 5/29 5/30 5/31 Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">After transfer   14 5/15 5/16 5/27 5/28 5/29 5/30 5/31 Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">After transfer   14 5/15 5/16 5/27 5/28 5/29 5/30 5/31 Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">Image: colspan="6">After transfer																							
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							l
	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							l
	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							
	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							
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		 					
	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		 			 		
	-	-	0.014	-	-	-	-	-	-	ND	-	-	-	-	-	-	0.081	-		 		 	 		
	-	-	-	-	-	-	-	-	-	-	-	-	0.33	0.41	0.44	0.67	0.9	0.81		 			 		
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.074	0.091		 		 	 ••••••		1
Cs-137(B	$\alpha/cm^{3}$																					 			
	9/0m/													After t	ransfer										
Place of 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		5/29	5/30	5/31							
	2.9				0.049					0.051			-		-		0.16								
	0.02		0.009	ND	ND		0.022			ND	ND		0.015	0.035	ND	ND		0.021		 		 	 		
		0.025					0.022				0.013			0.01		0.015				 	<b> </b>	 	 		
	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		 	<b> </b>	 <b>.</b>	 		<b> </b>
	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-		 	<b> </b>	 	 		<b> </b>
	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			0.031		 	ļ	 ļ	 		<b> </b>
	-	-	0.011	-	-	-	-	-	-	ND	-	-	-		-	-	0.075								i

\* 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 started as upper side 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 limitation of the radioactivity concentration of these analyses (I-131: approx. 0.007Bq/cm3, Cs-134: approxi. 0.02Bq/cm3, and Cs-137: approxi. 0.02Bq/cm3) (May 25).

0.35

0.43

0.46

0.72

0.95

0.84 0.075 0.099

\* Additional sampling at West part of Inceneration Workshop Building ( ) was conducted since it is located lower side of the groundwater.

\* We additionally measured . (May 30th)

<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 Inceneration Workshop Building North of Miscellaneous Solid Waste Volume Reduction Treatment Building