

# Current Status of Roadmap (issues/targets/major countermeasures) as of May 17

Red colored: newly added to the previous version, Blue colored: modified from the previous version

Issues	As of April 17	Step I (around 3 months) ▼ current status (as of May 17)	Step II (around 3 to 6 months after achieving Step I)	Mid-term issues	
I. Cooling	(1) Reactor Fresh water Injection	Cooling by minimum injection rate (injection cooling)	Stable cooling	Cold shutdown	Protection against corrosion cracking of structural materials  *to be partially implemented ahead of schedule
		Consideration and preparation of reuse of accumulated water			
		Nitrogen gas injection			
		Consideration and implementation of sealing measure at leaking points of PCV			
		Improvement of work environment			
		Securing heat exchange function			
			PCV flooding		
	(2) Spent Fuel Pool Fresh water injection	Reliability improvement in injection operation /remote-control operation *ahead of schedule	Stable cooling	More stable cooling	Removal of fuels
		Circulation cooling system (installation of heat exchanger) *partially ahead of schedule			
II. Mitigation	(3) Accumulated Water	Transferring water with high radiation level	Secure storage place	Reduction of total amount of contaminated water	Installation of full-fledged water processing facilities
		Storing water with low radiation level			Expansion of storage / processing facilities
		Installation of storage facilities / decontamination processing		Decontamination / Desalt processing (reuse), etc	Mitigation of contamination in the ocean (continued)
				Mitigation of contamination in the ocean	
(4) Ground water		Mitigation of contamination of groundwater (Sub-drainage management with expansion of storage / processing facilities)			Solidification of contaminated soil, etc
		Consideration of shielding method of groundwater			Establishment of groundwater shielding
(5) Atmosphere / Soil		Dispersion of inhibitor			
		Removal of debris			
			Installing reactor building cover (with ventilation system)		Installation of reactor building cover

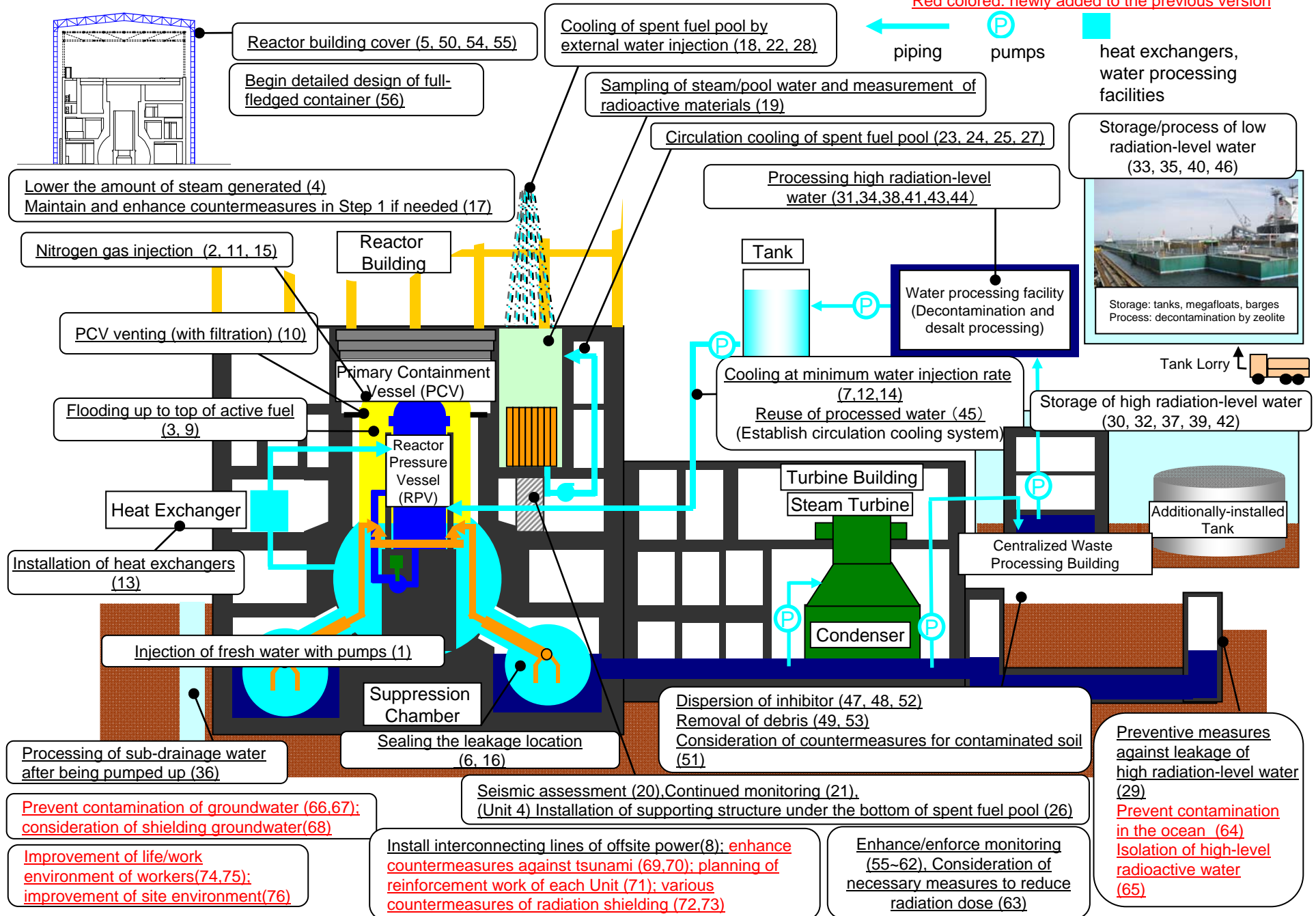
# Current Status of Roadmap (issues/targets/major countermeasures) as of May 17

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Issues		As of April 17	Step I (around 3 months) ▼ current status (as of May 17)	Step II (around 3 to 6 months after achieving Step I)	Mid-term issues
III. Monitoring/Decontamination	(⊕) Measurement, Reduction and Announcement				
		Expand/ enhance monitoring of radiation dose in and out of the power station and inform of results fast and accurately		Sufficiently reduce radiation dose in evacuation order / Deliberate Evacuation Preparation Area/ Evacuation Preparation Area	Continue monitoring and informing environmental safety
IV. Countermeasures against aftershocks, etc	(⌋) Tsunami, Reinforcement, etc	Enhancement of countermeasures against aftershocks and tsunami; preparation for various countermeasures for radiation shielding			
		(Unit 4 spent fuel pool) Install supporting structure	Consideration /implementation of reinforcement work of each Unit		Reinforcement work of each Unit
V. Environment improvement	(∞) Life/work environment	Improvement of workers' life/work environment			

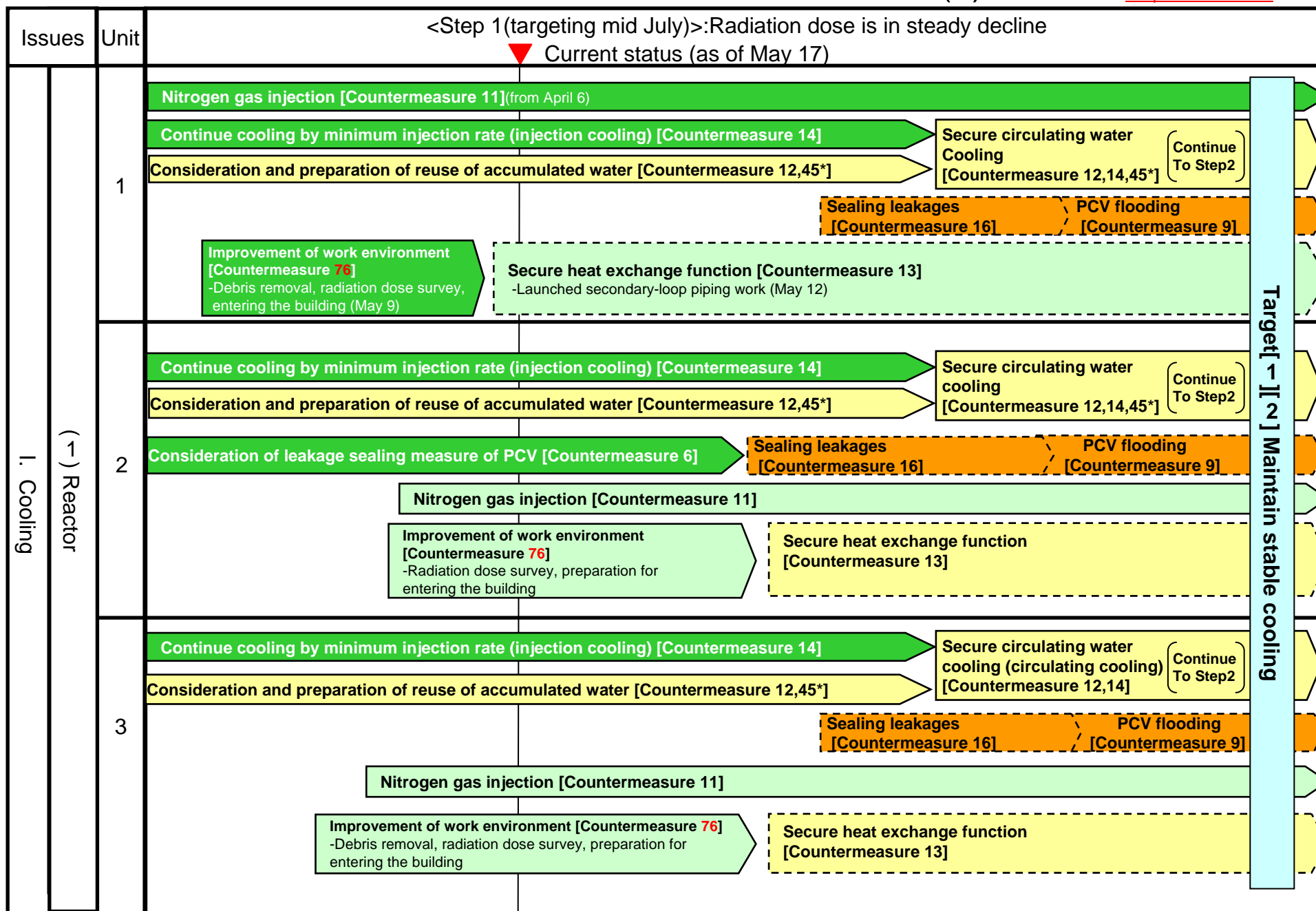
# Overview of Major Countermeasures in the Power Station as of May 17

Red colored: newly added to the previous version



# Current Status of Countermeasures (1)

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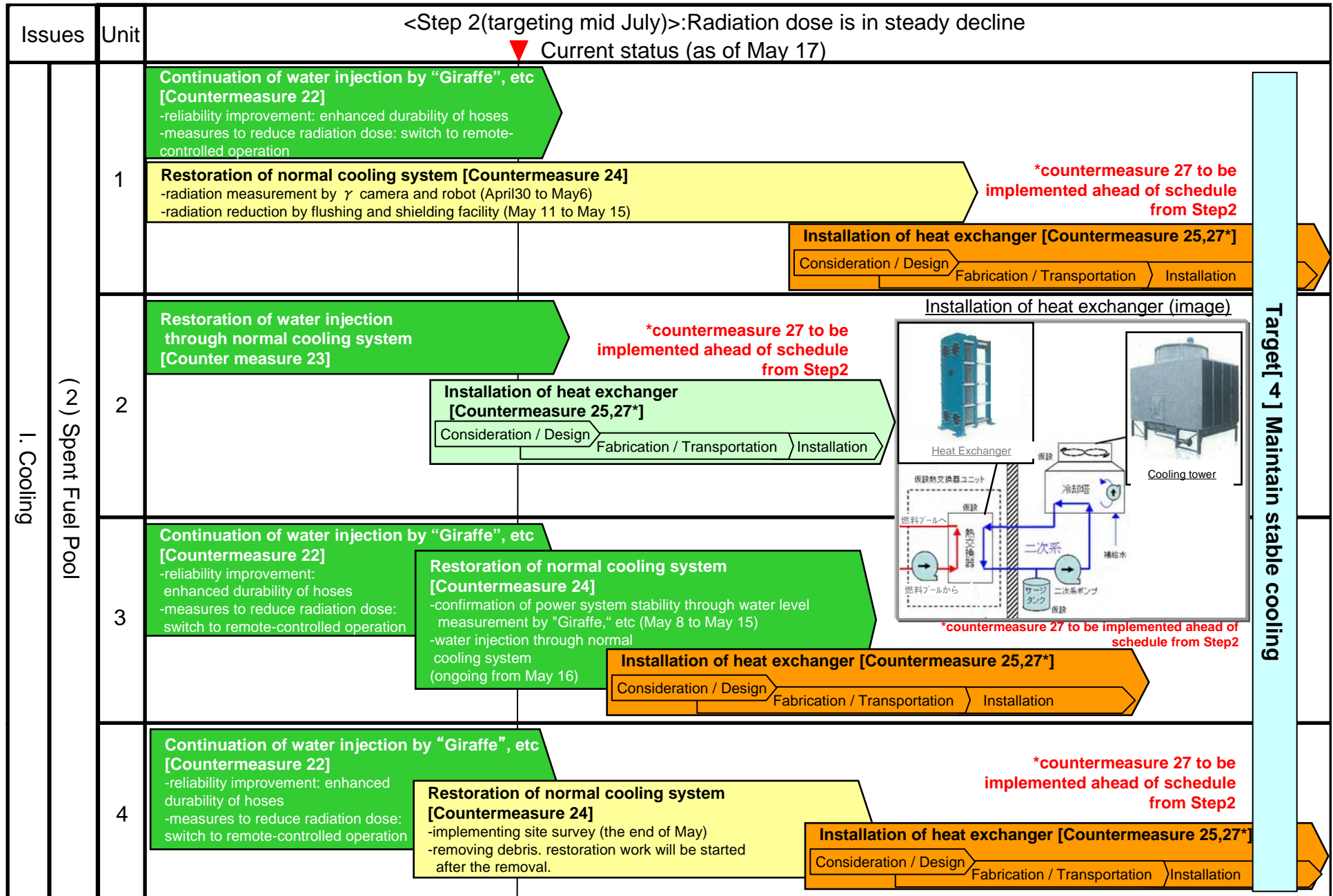
Target [ 〓 ] Maintain stable cooling

\*(countermeasure 45 to be implemented ahead of schedule from Step2)

Legend  : Implemented  : Under construction  : Field work started  : Field work not started yet

# Current Status of Countermeasure (2)






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Legend:  : Implemented     : Under construction     : Field work started     : Field work not started yet

# Current Status of Countermeasures (3)


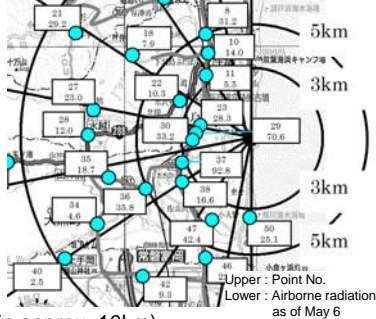

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Issues		<Step 1 (targeting mid July)> : Radiation dose is in steady decline ▼ Current status (as of May 17)					
II. Mitigation	(3) Accumulated Water	<p><b>[ High level ]</b></p> <p><b>Secure sufficient storage place [Countermeasure 37,39]</b> Transfer after waterproof check of centralized Waste Processing Facilities (Process Main Building and High-temperature Incineration Building) Transfer (Unit 2 trench to Process Main Building) Waterproof check etc. (Incineration Building) - Installation of tanks [For receiving processed water] May 10 : approx. 11,000 t</p>	<p><b>Continue to Secure sufficient storage place [Countermeasure 37,39,42*]</b> *(Countermeasure 42 to be implemented ahead of schedule from Step 2) Transfer (from Unit3 Turbine Building to Incineration Building) - Installation of tanks [For receiving processed water] late June : approx. 28,000 t, preparing installation place for underground tanks* (from May 16 to step 2)</p>	Target [∞] Secure sufficient storage place			
		<p><b>Mitigation of contamination in the ocean [Countermeasure 64]</b> - Installation of silt fence</p>	<p><b>Continuing mitigation of contamination in the ocean [Countermeasure 64]</b> - Installation of circulating decontamination system (end of May), Installation of steel sheet pile (to Step 2)</p>				
		<p><b>Isolation of high-level radioactive Water [Countermeasure 65]</b> - Closing of Unit 2 &amp; 3 Turbine trenches (end of May)</p>					
		<p><b>Installation of water processing facilities [Countermeasure 38]</b> Consideration / Design Manufacturing / Transportation Installation of decontamination / salinity processing equipment</p>	<p><b>Continuing water processing of contaminated water [Countermeasure 38,43, 45*]</b> Middle of June: processing start Test Operation Operation: processed water to be reused (to Step 2) *(Countermeasure 43, 45 to be implemented ahead of schedule from Step 2)</p>				
		<p>Underground Tank</p> 	<p>Receiving tank for processed water</p> 	<p>Installation of decontamination equipment</p> 	<p>Mega float</p> 	<p>Water processing by zeolite</p> 	Target [~] Store and process water
	<p><b>[ Low level ]</b></p> <p><b>Increase storage capacity / decontamination [Countermeasure 40,41]</b> Installation of tanks ( May 8 : 2,200 t ) - Use of decontaminant (zeolite) : test operation (from May 3)</p>	<p><b>Continue to increase storage capacity / decontamination [Countermeasure 40,41]</b> - Installation of tanks (mid May : 6,200t, late May : 6,400 t, early June : 3,600 t ), Mega float (late May : 10,000 t ), barges (late June : 1,200 t and 1,000 t ) - Start of full operation of decontaminant (zeolite) (from late May)</p>					
	(4) Groundwater	<p><b>Consideration of mitigation of groundwater contamination [Countermeasure 66]</b></p>	<p><b>Implementation of mitigation of groundwater contamination [Countermeasure 67]</b> Restoration of subdrain pumps (middle of June) Subdrain management with expansion of storage / processing facilities (to Step 2)</p>	<p><b>Consideration of groundwater shielding method [Countermeasure 68] (to Step 2)</b></p>	Target [?] Mitigation of groundwater contamination		

Legend:  : Implemented  : Under construction  : Field work started  : Field work not started yet

# Current Status of Countermeasures (4)

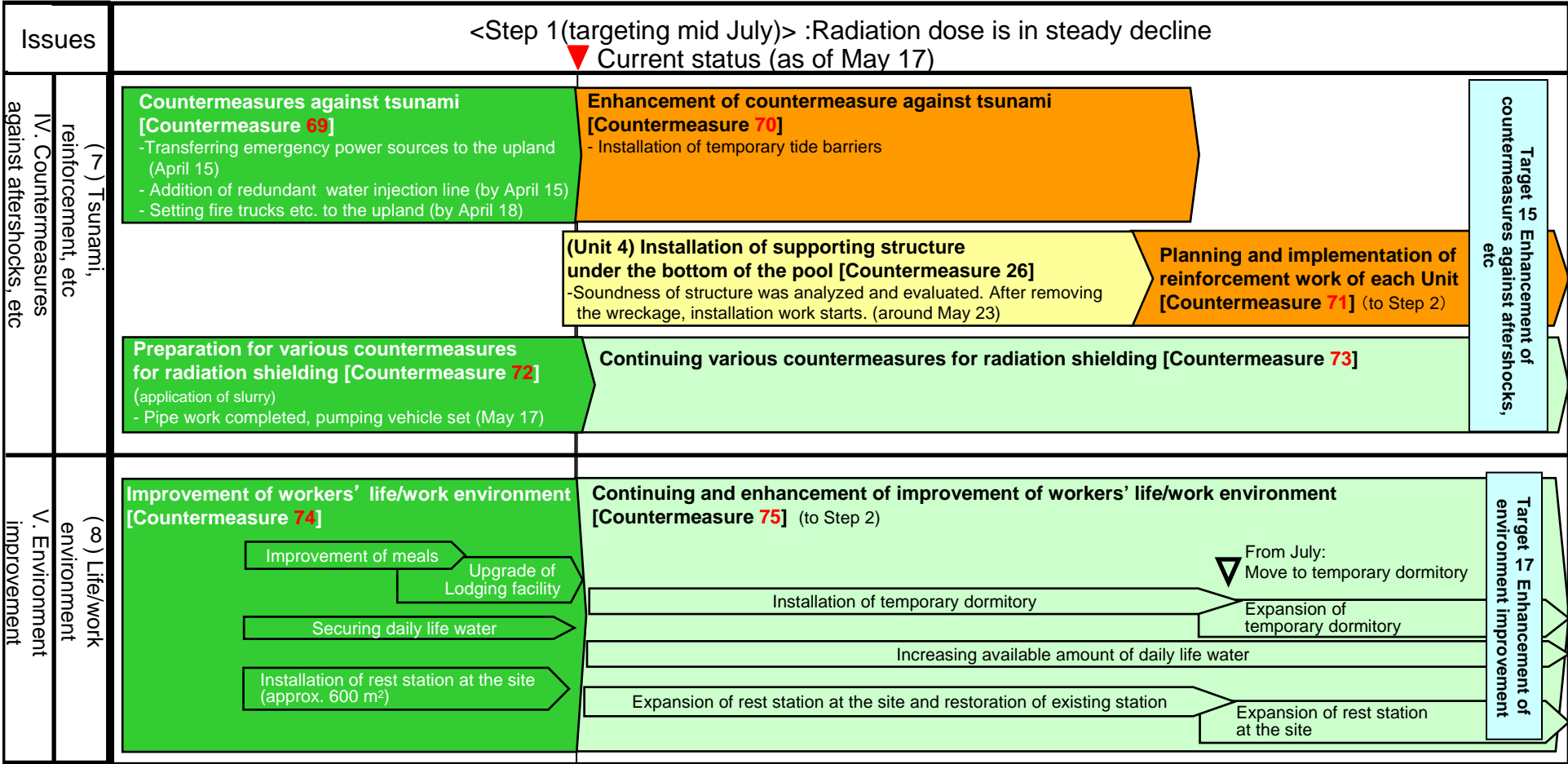
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Issues		<Step 1(targeting mid July)> :Radiation dose is in steady decline ▼ Current status (as of May 17)		
II. Mitigation	(㊦) Atmosphere / Soil	<b>Dispersion of inhibitor [Countermeasure 52]</b> - Plane and slope : approx. 105,000 m <sup>2</sup> (May 12) - Around Units 1 to 4 : approx. 49,000 m <sup>2</sup> (May 12)	<b>Continuing dispersion of inhibitor [Countermeasure 52]<sup>(to step2)</sup></b> - Plane and slope : approx. 420,000 m <sup>2</sup> (until late June) - Around Units 1 to 4 : approx. 120,000 m <sup>2</sup> (until late May)	 Target [㊦] Prevent scattering of radioactive materials
		<b>Removal of debris [Countermeasure 53]</b> (from April 6) - Removal of debris (equivalent of 127 containers with approx. 4 m <sup>3</sup> volume) (May 10)		
		<b>Installing reactor building cover [Countermeasure 54]</b> -Unit 1 : Started preparation construction work (from May 13) Design → Procurement, Manufacturing → On-site construction (including preparation) (to Step 2) -Units 3 & 4 : Now designing (to Step 2)		
III. Monitoring/Decontamination	(㊦) Measurement, Reduction and Announcement	<b>Expand/enhance monitoring and announcement [countermeasure 60,61]</b> -Continue monitoring in and out of the power station		Target [㊦] Expand/enhance monitoring etc.
<b>[Land Area]</b> - Monitoring within 20km radius of the periphery: (1) Monitoring of airborne radiation at 128 points, and dust concentration at 12 points by the collaboration between MEXT, Power Support Team and TEPCO (April 18) (2) Monitoring of airborne radiation at 50 points by Power Support Team (from May 6, weekly) - Monitoring at 5 points between 3 and 5 km radius of the periphery at the timing of entry in the building of Unit 1 (open the airlock) (May 8,9) (Map on the right indicates the collecting points within approx. 10km)		 Upper : Point No. Lower : Airborne radiation as of May 6	<b>[Ocean Area]</b> -Start monitoring sea water at 22 points (from May 5) and marine soil at 2 points (from April 29) off the coast of Fukushima (Increased from sea water at 16 points (as of April 17)) -Start monitoring sea water at 5 points off the coast of Ibaraki (from April 29) (Map on the right indicates the collecting points within approx. 30km)	 ● :Sea water collecting points ● :Sea water and marine soil collecting points

Legend  : Implemented  : Under construction  : Field work started  : Field work not started yet

# Current Status of Countermeasures (5)

Red colored: newly added to the previous version



Target 15 Enhancement of countermeasures against aftershocks, etc

Target 17 Enhancement of environment improvement

Legend  : Implemented  : Under construction  : Field work started  : Field work not started yet

**Press Release (May 17, 2011)**

**Progress status of the “Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station”**

With regard to the accident at Fukushima Daiichi Nuclear Power Station due to the Tohoku-Chihou-Taiheiyo-Oki Earthquake occurred on Friday, March 11th, 2011, we are currently making our utmost effort to bring the situation under control, and on April 17<sup>th</sup>, we put together a road map towards restoration from the accident.

(Announced on 17<sup>th</sup> April)

Today, as a month has passed since we presented the roadmap towards restoration, we would like to present the status quo of the progress.

Details of the progress are as attached.

We would like to deeply apologize again for the grave inconvenience and anxiety that the broad public has been suffering due to the accident at the Fukushima Daiichi Nuclear Power Station. We will continue to make every endeavor to bring the situation under control.

END





Appendix 1: Current Status of Roadmap (issues/targets/major countermeasures) as of May 17

Appendix 2: Current Status of each countermeasure

Reference: Progress Status of Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station

PIC: Hitosugi/Nagai/Matsuda  
Corporate Communications Department  
03-6373-1111

# Progress Status of Countermeasures

<b>Legend</b>	 : Implemented	 : Under construction	 : Filed work started, but construction not started	 : Field work not started yet
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Areas	Issues	Target	Countermeasures	Unit 1	Unit 2	Unit 3	Unit 4	
I. Cooling	(1) Reactors	Target [1] Stable cooling	Countermeasures started by April 17	Countermeasure [1]: Injecting fresh water into the RPV by pumps	-In progress (from March 25)	-In progress (from March 26)	-In progress (from March 25)	
				Countermeasure [2]: Injecting nitrogen gas into the PCV (start from Unit1)	-In progress (from April 6)	-Injection line is under preparation (from April 16)	-Injection line is under preparation (from April 16)	
				Countermeasure [3]: Consideration of flooding the PCV up to the top of active fuel	-Under consideration (from April 13)	-Under consideration (from April 13)	-Under consideration (from April 13)	
				Countermeasure [4]: Lower the amount of steam generated by sufficiently cooling the reactor (to be achieved by countermeasures in Step1 and Step2)	-Various countermeasures have been taken	-Various countermeasures have been taken	-Various countermeasures have been taken	
				Countermeasure [5]: Consideration of shielding the leakage by covering the reactor building	-Consideration is completed		-Designing is in progress (continue to Step 2)	-Designing is in progress (continue to Step 2)
				Countermeasure [7]: Cooling at minimum water injection rate (control the leakage of contaminated water)	-In progress	-In progress	-In progress	
				Countermeasure [8]: Install interconnecting lines of offsite power soon	-Installation completed			
				Countermeasures in Step 1	Countermeasure [6]: Consideration of sealing the leakage location in the PCV		-Under consideration (various tests of grout materials are in progress)	
			Countermeasure [9]: Flood the PCV up to the top of active fuel		-While flooding operation started from May 6, consideration of shielding measure of leakage in the PCV is in progress. (Countermeasure [16])	-Flooding measure is under consideration (Countermeasure [3])	-Flooding measure is under consideration (Countermeasure [3])	
			Countermeasure [10]: Reduce the amount of radioactive materials (utilization of standby gas treatment system (filter), etc.) when PCV venting (release of steam containing radioactive materials into the atmosphere)		-Not necessary at this moment	-Not necessary at this moment	-Not necessary at this moment	
			Countermeasure [11] (integrate with countermeasure [15]): Inject nitrogen gas into the PCV		-In progress (from April 6)	-Injection line is under preparation (from April 16)	-Injection line is under preparation (from April 16)	
			Countermeasure [12]: Circulate the accumulated water back into the RPV after processing it		-Site survey was conducted (April 26, May 11) -Preparation of injection line is scheduled to start from May 21	-Injection line is under preparation (from April 9)	-Injection line is under preparation (from April 16)	
			(Countermeasures in Step 2) Countermeasure [45]: Reuse of processed water as reactor coolant		-Same as Countermeasure [12]	-Same as Countermeasure [12]	-Same as Countermeasure [12]	
			Countermeasure [13]: Recover heat exchange function for the reactor		-Installation work is in progress (May 13)	-Basic design is completed. Detailed design is in progress. -Manufacturing heat exchanger	-Basic design is completed. Detailed design is in progress. -Manufacturing heat exchanger	
			Countermeasure [14]: Continue cooling by current minimum water injection rate.		- In progress	- In progress	- In progress	
			Countermeasure [16]: Seal the leakage location in the PCV		-Confirming leakage spot and leaking amount (plant parameter confirmation, site survey, etc)	-Sealing measure is under consideration (Countermeasure [6])	-Confirming leakage status (plant parameter confirmation)	
			Countermeasure [76]: Improve working environment		-Measurement of radiation dose, Removal of debris, Entering into the building (May 9)	-Measurement of radiation dose, Preparation for Entering into the building	-Measurement of radiation dose, Removal of debris, Preparation for Entering into the building	

## Progress Status of Countermeasures

Areas	Issues	Target	Countermeasures	Unit 1	Unit 2	Unit 3	Unit 4	
I. Cooling	(2) Spent Fuel Pools	Target [4] Stable cooling	Countermeasures started by April 17	Countermeasure [18]: Consideration/implementation of improving reliability of external water injection by concrete pumpers ("Giraffe", etc.)/switch to remote-controlled operation.	-Reliability improvement: manufacturing hoses with enhanced durability (high-spec polyethylene pipe) -Measures to reduce radiation dose: allocated concrete pumping vehicle equipped with remote controllable arm		-Same as Unit 1	-Same as Unit 1
				Countermeasure [19]: Sampling and measurement of steam/pool water by "Giraffe", etc.	-will be considered including the sampling method	- Analyzed water of the pool in skimmer surge tank. Confirmed that most of the fuel were intact.	-Confirmed that most of the fuel were intact by analyzing water in the pool	-Confirmed that most of the fuel were intact by analyzing water in the pool
			Countermeasures in Step 1	Countermeasure [22]: Continuation of water injection by "Giraffe", etc	-Reliability improvement: manufacturing hoses with enhanced durability (high spec polyethylene pipe) -Measures to reduce radiation dose: allocated concrete pumping vehicle equipped with remote controllable arm (2 vehicles)		-Same as Unit 1	-Same as Unit 1
				Countermeasure [23]: Restoration of water injection through normal cooling system.		- Continue water injection through normal cooling system - Addition of heat exchange function is treated in Countermeasure [25,27]		
				Countermeasure [24]: Restoration of normal cooling system	-Radiation measurement by camera and robot(from April 30 to May 6) -Radiation reduction by flushing and shielding facility is under consideration (from May 11)		-Confirmation of power system stability through water level measurement by "Giraffe"etc(from May 8 to May 15) -Water injection through normal cooling system(from May 16)	-Implementing site survey (to the end of May) -Removing debris. Restoration work will start after the removal.
				Countermeasure [25]: Install heat exchangers.	-Manufacturing heat exchanger	-Manufacturing heat exchanger -Removing debris in working environment (from May 4) - Installation work is in progress (from May 17)	-Manufacturing heat exchanger. Installation work will start after it is transferred to the site.	-Manufacturing heat exchanger
				(Countermeasures in Step 2) Countermeasure [27]: Cooling by installation of heat exchangers	-Cooling will start after installing heat exchanger (Countermeasure [25])	-Cooling will start after installing heat exchanger (Countermeasure [25])	-Cooling will start after installing heat exchanger (Countermeasure [25])	-Cooling will start after installing heat exchanger (Countermeasure [25])
			Countermeasures started by April 17	Countermeasure [29]:Identify leakage path and examine and implement preventive measures	- Putting sandbags including radioactive decontaminants (zeolite) into the port (from April 15 to 17: put 10 sets of baskets including sandbags) - Installation of contamination preventive fences (silt fence) in the port (from April 11 to 14: installation) - Shielding between trench and building (April 7: completed in Unit 4) etc.			
				Countermeasure [30]:Transferring accumulated water to facilities that can store it (condenser and Centralized Waste Treatment Facility)	- Unit 2 Turbine Building accumulated water -> condenser (April 13 transfer completed) - Implementation of waterproof work etc. in order to transfer water from Unit 2 Turbine Building to Centralized Radiation Waste Treatment Facility			
				Countermeasure [31]: Preparing decontamination and desalt of transferred accumulated water.	- Selection of decontamination / desalt, consideration of basic design etc.			
				Countermeasure [32]:Preparing to install tanks	- Arrangement of tank, selection of installation place, preparation - Cancellation application of permission and authorization regarding deforestation			
Countermeasure [37]:Utilization of "Centralized Waste Treatment Facility", etc. to store water	- After waterproof check in Centralized Radiation Waste Treatment Facility (High-temperature Incineration Building and Main Process Building), transferring accumulated water in Unit 2 from April 19 - Installation of tanks [For receiving treated water] May 10 : Approx. 11,000 tons - Transferring accumulated water in Unit 2 and 3 into Centralized Waste Treatment Facility (High-temperature Incineration Building and Main Process Building) (start transferring accumulated water in Unit 3 from May 17)							
Countermeasure [38]:Install water processing facilities	- Decontamination / desalt equipments installation work is in progress							
		ace for water with high radiation level						

## Progress Status of Countermeasures

Areas	Issues	Target	Countermeasures	Unit 1	Unit 2	Unit 3	Unit 4	
II. Mitigation	(3) Accumulated Water	Target [6]: Secure sufficient storage pl	Countermeasures in Step 1	Countermeasure [39]:Examination and implementation of backup measures (installment of additional tanks)	-Installation of tanks [For receiving treated water] late June : Approx. 28,000 tons, Preparing installation place for underground tanks* (from May 16 to Step 2)			
				(Countermeasure in Step 2) Countermeasure [42]:Expansion of additional tanks to store high radiation-level contaminated water	- Consideration of installation of additional tanks to store high radiation-level contaminated water			
				(Countermeasure in Step 2) Countermeasure [43]:Continuation and reinforcement of decontamination and desalt of high radiation-level water	- Consideration and preparation for installation of backup treatment equipments - Preparation for enhancement of desalt equipments			
				(Countermeasure in Step 2) Countermeasure [45]:Reuse of processed water as reactor coolant	- In progress in Countermeasure [12]	- In Progress in Countermeasure [12]	- In Progress in Countermeasure [12]	
				Countermeasure [64]:Mitigation of contamination in the ocean	- installation of silt fence (from April 11 to 14)			
				Countermeasure [65]:Isolation of high-level radioactive water		- Blocking of vertical shaft of turbine trench (planned at the end of May)	- Blocking of vertical shaft of turbine trench (planned at the end of May)	- Completed blocking of vertical shaft of turbine trench (April 7)
		Target [7]: Store and process water with low radiation level	Countermeasures started by April 17	Countermeasure [33]:Preparing to store with tanks and barges	- Installation of tank (as of May 17 13,200 tons) - Megafloat 10,000 tons (planned to arrive in port of Fukushima Daiichi on May 20)			
				Countermeasure [34]:Preparing for decontamination and desalt of contaminated water	- Decontamination / desalt equipments installation work is in progress			
				Countermeasure [35]: Preparing to install a reservoir	- Planning to use tank instead of reservoir			
				Countermeasure [36]:Preparing to decontaminate sub-drainage water after being pumped up	- Preparing to decontaminate in tank on the ground etc. (zeolite etc.)			
	Target [13]: Prevent contamination spread into the sea	Countermeasures in Step 1	Countermeasure [66]:Examination of mitigation measures of groundwater contamination	- Examined mitigation measures of groundwater contamination (countermeasure [67],[68])				
			Countermeasure [67]:Implementation of mitigation measures of groundwater contamination	- Restoration of sub-drain pump (planned in mid June) - Management of sub-drain in accordance with planned expansion of storage and treatment facility (continue to Step 2)				
	(4) Underground Water	Target [13]: Prevent contamination spread into the sea	Countermeasures in Step 1	Countermeasure [68]:Examination of shielding methods of groundwater	-Choose most appropriate method to shield underground water by evaluating the effect of water shield, earthquake resistance, and durability(Continue to Step 2)			
n / Soil	ctive materials on buildings	asures started by April 17	Countermeasure [47]:Inhibit scattering of radioactive materials by full-scale dispersion of inhibitor after confirming its performance by test	- Confirmed unevenness of dispersion and solidification status of soil by test dispersion - Developed remote-controlled crawler damp for dispersion				
			Countermeasure [48]:Prevent rain water contamination by dispersion of inhibitor	- Started installation of remote-controlled heavy machinery (April 6 test run, April 10 full operation) (Removed debris (volume of 31container of approx. 4m3 ) ( by April 17))				
			Countermeasure [49]:Removal of debris					
			Countermeasure [50]:Examination and implementation of basic design for reactor building cover and full-fledged measure (container with concrete roof and wall, etc.)	Examination of basic design for reactor building cover		Examination of basic design for reactor building cover	Examination of basic design for reactor building cover	

## Progress Status of Countermeasures

Areas	Issues	Target	Countermeasures	Unit 1	Unit 2	Unit 3	Unit 4	
II. Mitigation	(5) Atmosphere	Target [9]: Prevent scattering of radionuclides and ground	Countermeasures					
			Countermeasure [51]: Consideration of solidification, substitution and cleansing of contaminated soil (mid-term issues.)	- Confirmed solidification of soil by dust inhibitor				
			Countermeasure [52]: Dispersion of inhibitor	-Approx. 105,000 m2 of plane and slope (as of May 12) -Approx. 49,000 m2 around Units 1 to 4 (as of May 12) <Plan> -Approx. 420,000 m2 of plane and slope (to the end of June) -Approx. 120,000 m2 around Units 1 to 4 (to the end of May)				
			Countermeasure [53]: Removal of debris	- Removed debris (volume of 127 containers of approx. 4m3) (from April 6 to May 10) - Continuation of removal work				
			Countermeasure [54]: Installation of reactor building covers	- Started preparation construction work (from May 13)			- Designing is in progress(Continue to Step 2)	
III. Decontamination / Monitoring	(6) Measurement, Reduction and Announcement	Target [11]: Expand/enhance monitoring	Countermeasures started by April 17	Countermeasure [57]: Monitoring sea water, soil and atmosphere within the site boundary (25 locations.)	- In progress - Implemented atmosphere monitoring when opened the door of reactor building in Unit 1(May 8, 9)			
			Countermeasure [58]: Monitoring radiation dose at the site boundary (12 locations.)	- In progress - Implemented atmosphere monitoring when opened the door of reactor building in Unit 1(May 8, 9)				
			Countermeasure [59]: Consideration of monitoring methods in evacuation order/ planned evacuation/ emergency evacuation preparation areas.	- Measurement of airborne radiation within 20 km radius from the power plant. Implemented measurement in 128 spots within 2km from main road (April 18). Implemented fixed point measurement in 50 spot (May 6,13)				
			Countermeasures in Step 1	Countermeasure [60, 61]: Expansion, enhancement and announcement of monitoring	-Continue monitoring in and around the power station (to Step 2)			
IV. Countermeasures against aftershocks, etc.	(7) Tsunami, reinforcement, etc.	Target [15]: Prevent expansion of disaster	Countermeasures started by April 17	Countermeasure [20]: Seismic tolerance assessment of Unit 4.				-Evaluated resistance against earthquake of SFP in Unit 4
			Countermeasures in Step 1	Countermeasure [21]: Continue monitoring and examine necessary countermeasures				-Continue surveillance and considered reinforcement work
			Countermeasures in Step 1	Countermeasure [69]: Countermeasures against tsunami	- Transferred emergency power sources to the upland (April 15) - Added redundancy of water injection line (to April 15), Set fire trucks etc. to the upland (to April 18)			
			Countermeasures in Step 1	Countermeasure [70]: Enhancement of countermeasures against tsunami	- Installation of temporary tide barriers (the end of June)			
			Countermeasures in Step 1	Countermeasure [26]: (Unit 4) Installation of supporting structure under the bottom of the pool				- Soundness of structure was analyzed and evaluated. After removing the wreckage, installation work starts. (around May 23)
			Countermeasures in Step 1	Countermeasure [71]: Planning/implementation of reinforcement work of each Unit	- Plan to evaluate earthquake resistance (Continue to Step 2)			
			Countermeasures in Step 1	Countermeasure [72]: Preparation of various countermeasures for radiation shielding (application of slurry)	- Pipe work completed, pumping vehicle set (May 17)			
			Countermeasures in Step 1	Countermeasure [73]: Continuation of various countermeasures for radiation shielding	(Continue to Step 2)			
V. Environment Improvement	(8) Improvement of life/work environment at the site	Target [17]: Enhance the environment improvement	Countermeasures in Step 1	Countermeasure [74]: Improvement of life/work environment of workers	- Improvement of meals, upgrade of lodging facility, securing daily life water, installation of rest station at the site (approx. 600m2)			
			Countermeasures in Step 1	Countermeasure [75]: Continuation and enhancement of improvement of life/work environment of workers	(Continue to Step 2) - Installation of temporary dormitory (move to the dormitory from July), increasing available amount of daily life water, expansion of rest station at the site and restoration of existing station (continue to expand after July as well)			