

7 Summary of Actual Manipulation Results

Disclaimer

This English translation is only for reference purpose. When there are any discrepancies between original Japanese version and English translation version, the original Japanese version always prevails.

Results of manipulation such as implementing Isolation Condenser System, Reactor Core Isolation Cooling System, Primary Containment Venting System and Alternative Water Injection etc at the power station after the earthquake show at the chart 7.1(1) ~ (5). Manipulation results are summarized based on confirmed exchanged information between the Headquarter and the power station, and operator task journal etc. Hereafter, it is possible that as per detailed analyses of other parameters and clear attestation by persons involved, clarification of facts advances more and we may find information related to the movement of equipment, which is not confirmed at this report. In that case, we would like to announce that facts in each case.

Manipulation results of Isolation Condenser System Manipulation results of Reactor Core Isolation Cooling System Manipulation results of High Pressure Core Injection System Manipulation results of Safety Relief Valve Manipulation results of Primary Containment Venting System are shown at the Chart 7 . 1 (1) .

Results of securing power and restoring power are shown as “” at the Chart “Status of Emergency Rehabilitation by power source car” 7 . 1 (2) and “Status of Receiving power from the off site power” at the Chart 7 . 1 (3) .

Manipulation results of usage of fire pump and injection of alternative water injection as sweater injection are shown at the Chart separately as results of water injection for the reactor and the spent fuel pool at the Chart 7 . 1 (4) .

Treatment results of accumulated contaminated water at the turbine building, outdoors trenches and outdoors ducts are shown at the Chart 7 . 1 (5) .

Table 7.1 (1) Summary of plant operation records: Reactor water injection system, safety relief valves and RCV vents

	1F1	2F2	1F3
① Operation records of the Isolation Condenser system (IC)	<ul style="list-style-type: none"> • 3/11 14:52 IC automatic startup • 3/11 15:03 IC manual shutdown (manual operation thereafter) • 3/11 18:18 IC(A) 2A and 3A valves open / Steam generation confirmed • 3/11 18:25 IC(A) 3A valve closed • 3/11 21:30 IC 3A valve opened 		
② Operation records of the Reactor Core Isolation Cooling system (RCIC)		<ul style="list-style-type: none"> • 3/11 14:50 RCIC manual startup • 3/11 14:51 RCIC tripped (L-8) • 3/11 15:02 RCIC manual startup • 3/11 15:28 RCIC tripped(L-8) • 3/11 15:39 RCIC manual startup • 3/12 02:55 RCIC activation status confirmed (on-site discharge pressure) • 3/12 04:20-5:00 RCIC's water source switched from the condensate storage tank to the pressure suppression chamber • 3/14 13:25 Loss of RCIC function confirmed 	<ul style="list-style-type: none"> • 3/11 15:05 RCIC manual startup • 3/11 15:25 RCIC tripped (L-8) • 3/11 16:03 RCIC manual startup • 3/12 11:36 RCIC tripped
③ Operation records of the High Pressure Core Coolant Injection system (HPCI)	No startup	No startup	<ul style="list-style-type: none"> • 3/12 12:35 HPCI startup (L-2) • 3/13 02:42 HPCI shutdown
④ Opening / closing records of safety relief valves (SRV) (Reactor depressurization operation)	No operation	<ul style="list-style-type: none"> • 3/14 16:34 RPV depressurization (SRV open) operation started • 3/14 18:02 Reactor pressure decrease confirmed SRV2 valve opened to resume depressurization due to insufficient reactor pressure decrease • 3/14 21:20 SRV opened to reduce reactor pressure, recovering coolant inventory 	<ul style="list-style-type: none"> • 3/13 around 09:08 SRV open • 3/13 09:50 Battery connection completed; SRV open to maintain reduced pressure <p>SRV closure / opening operations hereafter due to the issues of air pressure for driving SRV and sustained excitation of electromagnetic valves on the air supply line</p>

	1F1	2F2	1F3
		SRV closure / opening operations hereafter due to the issues of air pressure for driving SRV and sustained excitation of electromagnetic valves on the air supply line	
⑤ Opening / closing records of RCV vents	<ul style="list-style-type: none"> ■ 3/12 10:17 Operation of AO valves on the pressure suppression chamber side from MCR <ul style="list-style-type: none"> • Prior to the main operation <ul style="list-style-type: none"> 3/12 09:15 Vent line MO valves manually opened (25%) on site 3/12 09:32 Operation of the applicable AO valves attempted on site but canceled due to high radiation dose • Difficulty in keeping the valves open due to issues with air pressure for driving the AO valves, resulting in repeated Open operations several times • A makeshift air compressor for driving AO valves installed at around 14:00 on 3/12; RCV pressure decrease confirmed at 14:30 	<ul style="list-style-type: none"> ■ 3/13 11:00 The vent line for the pressure suppression chamber configured (The valves' closed status and inability to be opened confirmed after the hydrogen explosion (3/14 11:01) at Unit 3 Reactor Building) <ul style="list-style-type: none"> • Vent operations appear to have been attempted thereafter. <ul style="list-style-type: none"> 3/14 around 21:00 Small valve on the pressure suppression chamber side operated (3/14 23:35 Closure of the valve confirmed) ■ 3/15 0:01 Small valve on the dry well side operated (Closure of the valve confirmed several minutes later) <p>No RCV pressure decrease confirmed after the abovementioned vent operations; Actual extent of ventilation unclear</p> <p>The following operations also carried out to depressurize / cool down the pressure suppression chamber after SRV, in order to ensure smooth depressurization of RPV:</p> <ul style="list-style-type: none"> • 3/14 around 16:00 Opening operation for the valve on the pressure suppression chamber side (Opening of the valve not confirmed as of 16:21 on the same day) 	<ul style="list-style-type: none"> ■ 3/13 8:41 The vent line configured with the operations of AO valves on the pressure suppression chamber side; The following operations carried out in relation to this operation: <ul style="list-style-type: none"> • 3/13 around 9:08 SRV operated to depressurize RPV (Increase of RCV pressure) • 3/13 around 9:20 Decrease of RCV pressure confirmed • 3/13 11:17 Draining of air pressure closing the AO valves on the vent line • Repeated AO valve opening operations hereafter due to difficulty in keeping them open for the issues of air pressure for driving the valves and sustained excitation of electromagnetic valves on the air supply line <ul style="list-style-type: none"> - 3/13 12:30 Open operation / 3/15 16:00 Closure confirmed - 3/15 16:05 Open operation / 3/17 21:00 Closure confirmed - 3/17 around 21:30 Open operation / 3/18 5:30 Closure confirmed - 3/18 around 5:30 Open operation / 3/19 11:30 Closure confirmed - 3/20 around 11:25 Open operation / 4/8 around 18:30 Closure confirmed ■ 3/14 5:20 AO valves on the pressure suppression chamber side operated, with their Open status confirmed at 6:10, but their closure confirmed at 16:00 on the next day; Difficulty in keeping the AO valves open due to issues including sustained excitation of electromagnetic valves on the air supply line for driving AO valves, resulting in further Open operation hereafter <ul style="list-style-type: none"> - 3/16 1:55 Open operation / 4/8 around 18:30 Closure confirmed

Table 7.1 (2) Summary of plant operation records: Securing and restoring power supplies (status of emergency power restoration with power supply cars)

	1F1	1F2	1F3	1F4	1F5	1F6	RW concentrated at the common pool
<ul style="list-style-type: none"> • 3/11 around 16:00 • 3/11 16:10 • 3/11 around 16:30 • 3/11 around 17:50 • 3/11 around 18:00 • 3/11 evening ~ • 3/11 20:50 • 3/11 around 22:00 • 3/11 around 23:30 • 3/12 around 1:20 • 3/12 around 2:00 • 3/12 as of 3:00 • 3/12 around 7:18 • 3/12 around 15:30 • 3/12 15:36 • 3/12 20:05 • 3/13 8:30 • 3/13 14:20 • 3/14 4:08 • 3/14 11:01 	<p>Soundness check on power supply facilities (off-site power) started</p> <p>In response to the Nuclear Power Division's request for power supply cars, the Distribution Department instructed all offices to arrange power supply cars at the Nuclear Power Division's meeting at the Head Office.</p> <p>Request for power supply cars issued by the Head Office's emergency response HQ to other electric utilities</p> <p>Request for using SDF helicopters to air-lift power supply cars considered following reports of road damage and congestion hampering the ground delivery of power supply cars from TEPCO offices</p> <p>Soundness check on power supply facilities (station power) started</p> <p>Preparation for receiving power supply cars</p> <ul style="list-style-type: none"> • Considering the locations for deploying power supply cars • Considering the routes for laying cables (for connecting the power supply cars and power load (P/C 2C (alternative water injection))) • Arranging cable installation workers and giving instructions • Securing cables (gathering the cables held on site for outage (sufficient cables secured on site for the time being although preparation was made to arrange more cables from an off-site location [Ibaraki])) <p>Plan to use SDF helicopters to air-lift power supply cars abandoned</p> <p>Arrival of the first power supply car (Tohoku Electric Power Co.) at the Fukushima Daiichi NPS confirmed</p> <p>SDF's low-voltage power supply car arrived</p> <p>Arrival of 4 high-voltage power supply cars from Tohoku Electric Power Co. and one high-voltage power supply cars from TEPCO confirmed</p> <p>Cable installation and connection</p> <ul style="list-style-type: none"> • Extremely poor working conditions (darkness, pools of water due to tsunami, scattered debris, loss of manhole covers on the roads) • Tsunami alerts during work, forcing worker evacuation to a higher ground <p>Arrival of eight high-voltage power supply cars and seven low-voltage power supply cars from TEPCO</p> <p>Arrival of three low-voltage power supply cars from SDF</p> <p>Power supply route from high-voltage power supply cars to Unit 1 MCC via P/C 2C established; Power transmission to the site just before the pump for injecting boric acid achieved; Coordination of high-voltage power supply cars completed</p> <p>Explosion at Unit 1 Reactor Building; Power supply to P/C 2C suspended; Workers restoring the power supplies to Units 1 and 2 evacuated to the Anti-Seismic Building</p> <p>Soundness check on power supply facilities at Unit 4 (station power) confirming the availability of P/C4D</p> <p>Power transmission to P/C2C re-tried but failed due to damage to the installed cables from debris scattered from the Unit 1 explosion</p> <p>Power transmission from high-voltage power supply cars to P/C4D started</p> <p>Functionality of Unit 4 SFP temperature gauge and Unit 3 RCV ambient monitor partially restored</p> <p>Explosion at Unit 3 Reactor Building; Power supply to P/C4D suspended; Workers restoring the power supplies to Units 1/2 and Units 3/4 evacuated to the Anti-Seismic Building</p>						

Table 7.1 (3) Summary of plant operation records: Securing and restoring power supplies (status of power restoration by receiving power from off-site transmission lines)

1F1	1F2	1F3	1F4	1F5	1F6	RW concentrated at the common pool
<p>■480V power received by P/C2C (3/20 15:46)</p> <ul style="list-style-type: none"> • Makeshift power supply from Tohoku Electric Power Company's TEPCO genshiryoku transmission Line <p>■MUW insulation resistance measured (3/21 0Ω)</p> <p>■ Power received by the main bus panel for instrumentation AC120V (3/23 1:40)</p> <p>■ MCR lighting restored (3/24 11:30)</p> <p>■ Monitoring posts (MP-5~8) restored</p> <p>■ Tie-line for Units 1/2 – Units 3/4 installed (Enabling mutual use between Tohoku Electric Power TEPCO genshiryoku transmission Line and Okuma Transmission Line)(4/19 10:23)</p> <p>■ Tie-line with Units 5/6 bus installed (4/25)</p> <p>■3/29 8:32 Reactor water injection switched from firefighting pumps to makeshift motorized pumps</p> <p>4/3 11:50 Power supply for motorized pumps for reactor water injection switched from a makeshift system to a full system</p> <p>4/11 17:16 Off-site power for Units 1/2 (Tohoku Electric Power Company's TEPCO genshiryoku transmission Line) lost due to an earthquake, stopping the water injection pumps for Units 1 – 3</p> <p>4/11 17:56 Off-site power supplies for Units 1/2</p>	<p>■480V power received by P/C2C (3/20 15:46)</p> <ul style="list-style-type: none"> • Makeshift power supply from Tohoku Electric Power Company's TEPCO genshiryoku transmission Line <p>■T/B MCC 2A-1 power received (3/26 16:40)</p> <p>■ MCR lighting restored (3/26 16:46)</p> <p>■ Tie-line for Units 1/2 – Units 3/4 installed (Enabling mutual use between Tohoku Electric Power TEPCO genshiryoku transmission Line and Okuma transmission line)(4/19 10:23)</p> <p>■ Tie-line with Units 5/6 bus installed (4/25)</p> <p>■3/27 18:31 Reactor water injection switched from firefighting pumps to makeshift motorized pumps</p> <p>3/29 16:30 SFP water injection switched from firefighting pumps to makeshift motorized pumps</p> <p>4/3 11:50 Power supply for motorized pumps for reactor water injection switched from a makeshift system to a full system</p> <p>4/11 17:16 Off-site power for Units 1/2 (Tohoku Electric Power Company's TEPCO genshiryoku transmission Line) lost due to an earthquake, stopping the water injection pumps for Units 1 – 3</p> <p>4/11 17:56 Off-site power supplies for Units 1/2 (Tohoku Electric Power</p>	<p>■Power received by P/C4D (3/22 10:35)</p> <ul style="list-style-type: none"> • Makeshift power supply from Yonomori Transmission Line 1L via Okuma Transmission Line <p>• 3/18 14:28 Test charging up to M/C vehicles for Units 3/4 completed</p> <p>• 3/19 Multi-circuit switch installed, cable installation completed</p> <p>• 3/20 On-site check on cables from the switch to load</p> <p>• 3/21 Cable installation completed</p> <p>• Power supply suspended due to the reinforcement of off-site power for Units 3/4 (increase to 66KV)(4/26 10:23~15:27)</p> <p>■T/B MCC 3C-2 power received (3/22 22:10)</p> <p>■T/B MCC 3C-1 power received (3/22 22:21)</p> <p>■Power received by the main bus panel for instrumentation AC120V (3/22 22:28)</p> <p>■ MCR lighting restored (3/22 22:46)</p> <p>■T/B MCC 3D-1 power received (3/29)</p> <p>■T/B MCC 3A-1 power received (3/30)</p> <p>■ Tie-line for Units 1/2 – Units 3/4 installed (Enabling mutual use between Tohoku Electric Power TEPCO genshiryoku transmission Line and Okuma Transmission</p>	<p>■Power received by P/C4D (3/22 10:35)</p> <ul style="list-style-type: none"> • Power supply suspended due to the reinforcement of off-site power for Units 3/4 (increase to 66KV)(4/26 10:23~15:27) <p>■ Power received by the main bus panel for instrumentation AC120V(3/22 21:52)</p> <p>■ Unit 4 MCR lighting restored (3/29 11:50)</p> <p>■ Tie-line for Units 1/2 – Units 3/4 installed (Enabling mutual use between Tohoku Electric Power TEPCO genshiryoku transmission Line and Okuma Transmission Line)(4/19 10:23)</p> <p>(The current status of power supplies (as of April 26) is shown in the “Single-Line Skeleton Diagram for Makeshift Power Supplies at Fukushima Daiichi Units 1 – 4”).</p>	<p>■ Power supplied from the sound sections of Yonomori Transmission Line (1L, 2L)</p> <p>■ Power received by M/C (6C) from the startup transformer 5SA (3/21 11:36) ; Power received by P/C (5A-1) from M/C6C(3/22 20:13)</p> <ul style="list-style-type: none"> • Power supplied from the sound sections of Yonomori Transmission Line (1L, 2L) <p>■ Normal systems 5A and 5B unavailable</p> <p>■ Operation with makeshift pumps (RHRS)(Power supply P/C)</p> <p>■ Power received by the important Anti-Seismic Building (3/24 8:48)</p> <p>■ Power received by the Water Processing Building (3/24 9:10)</p> <p>■ Makeshift cables installed and connected for the monitoring posts (MP-1~4)(3/26)</p> <p>■T/BMCC5D-2 power received (3/31)</p> <p>■ Tie-line with Units 5/6 bus installed (4/25)</p> <p>■ 3/19 5:00 RHR(C) started</p> <p>■ 3/23 17:24 Test operation tripped after the switch of power supplies for makeshift RHRS pumps from a makeshift system to a full system</p> <p>■ 3/24 16:14 Makeshift RHRS pumps restarted; RHR pumps started in the SHC mode</p>	<p>■Power supplied from the sound sections of Yonomori Transmission Line (1L, 2L)</p> <p>■ Power received by M/C (6C) from the startup transformer 5SA(3/21 11:3); Power received by M/C (6D) from the startup transformer 5SA(3/22 19:17)</p> <ul style="list-style-type: none"> • Power supplied from the sound sections of Yonomori Transmission Line (1L, 2L) <p>■ Normal systems 6A and 6B unavailable</p> <p>■ Operation with makeshift pumps (RHRS)(Power supply P/C)</p> <p>■ Installed cables tested (3/20)</p> <p>■ Monitoring posts (MP-1~4)</p> <p>■ Tie-line with Units 5/6 bus installed (4/25)</p> <p>■ 3/19 4:22 D/G(A) started</p> <p>■ 3/19 5:11 FPC started</p> <p>■ 3/19 21:26 Makeshift RHRS pumps started</p> <p>■ 3/19 22:14 RHR(B) started</p> <p>■ 3/25 15:38,42 Power supplies for two makeshift RHRS pumps switched from a makeshift system to a full system</p> <p>(The current status of power supplies (as of April 26) is shown in the “Single-Line Skeleton Diagram for</p>	<p>■ Makeshift power supplies for the common pool restored (3/24 15:37)</p> <p>3/24 18:05 Fuel pool cooling pumps started</p> <ul style="list-style-type: none"> • Makeshift power supplies for the common pool tripped (4/17 14:36~17:30 Cooling function restored; 17:44 Tripping attributed to short-circuit at Takaido switch 1L925 due to the drill for circuit breaker operation, scheduled for the following day) (It was the mini-clad L921 that actually tripped.) <p>(The current status of power supplies (as of April 26) is shown in the “Single-Line Skeleton Diagram for Makeshift Power Supplies at Fukushima Daiichi Units 1 – 4”).</p>

1F1	1F2	1F3	1F4	1F5	1F6	RW concentrated at the common pool
<p>(Tohoku Electric Power Company's TEPCO genshiryoku transmission Line) restored 4/11 18:04 Reactor water injection pumps for Units 1 – 3 restarted</p> <p>(The current status of power supplies (as of April 26) is shown in the “Single-Line Skeleton Diagram for Makeshift Power Supplies at Fukushima Daiichi Units 1 – 4”).</p>	<p>Company's TEPCO genshiryoku transmission Line) restored 4/11 18:04 Reactor water injection pumps for Units 1 – 3 restarted</p> <p>(The current status of power supplies (as of April 26) is shown in the “Single-Line Skeleton Diagram for Makeshift Power Supplies at Fukushima Daiichi Units 1 – 4”).</p>	<p>Line)(4/19 10:23) ■3/28 8:30 Reactor water injection switched from firefighting pumps to makeshift motorized pumps 4/3 11:50 Power supply for motorized pumps for reactor water injection switched from a makeshift system to a full system 4/11 17:16 Off-site power for Units 1/2 (Tohoku Electric Power Company's TEPCO genshiryoku transmission Line) lost due to an earthquake, stopping the water injection pumps for Units 1 – 3 4/11 17:56 Off-site power supplies for Units 1/2 (Tohoku Electric Power Company's TEPCO genshiryoku transmission Line) restored 4/11 18:04 Reactor water injection pumps for Units 1 – 3 restarted</p> <p>(The current status of power supplies (as of April 26) is shown in the “Single-Line Skeleton Diagram for Makeshift Power Supplies at Fukushima Daiichi Units 1 – 4”).</p>		<p>(The current status of power supplies (as of April 26) is shown in the “Single-Line Skeleton Diagram for Makeshift Power Supplies at Fukushima Daiichi Units 1 – 4”).</p>	<p>Makeshift Power Supplies at Fukushima Daiichi Units 1 – 4”).</p>	

Table 7.1 (4) Summary of plant operation records: Alternative water injection by way of using firefighting pumps, seawater, etc.

	1F1	1F2	1F3	1F4
Records of water injection into reactors	<ul style="list-style-type: none"> • 3/12 around 4:00 Freshwater injection using firefighting pumps commenced but suspended due to the increase of radiation level • 3/12 5:46 Freshwater injection using firefighting pumps resumed to intermittently inject around 80 tons of water by 14:53 on the same day • 3/12 19:04 Seawater injection commenced (Injection of the mixture of boric acid and seawater commenced at 20:45) <p>See Attachment 1 for operation records including the above.</p>	<ul style="list-style-type: none"> • 3/14 16:34 Seawater injection using the firefighting line commenced • 3/14 19:20 Non-operating status of out-of-fuel firefighting pumps confirmed; One firefighting pump and another firefighting pump started at 19:54 and 19:57 respectively to commence seawater injection • 21:20 Recovery trend of reactor inventory confirmed <p>See Attachment 1 for operation records including the above.</p>	<ul style="list-style-type: none"> • 3/13 9:25 Freshwater injection containing boric acid commenced • 3/13 13:12 Switch from freshwater injection to seawater injection <p>3/14 1:10~3:20 Water injection suspended to replenish the water supply pit</p> <p>See Attachment 1 for operation records including the above.</p>	
Records of water injection into SFP	<ul style="list-style-type: none"> • Water injection using a concrete pumping truck <p>See Attachment 2 for operation records.</p>	<ul style="list-style-type: none"> • Water from FPC (Fuel Pool Cooling Cleanup system line) with a makeshift pump <p>See Attachment 2 for operation records.</p>	<ul style="list-style-type: none"> • Water injected using a helicopter, high-pressure water truck and a squirt fire truck in the early stage; Periodic water injection using a concrete pumping truck thereafter <p>See Attachment 2 for operation records.</p>	<ul style="list-style-type: none"> • Water injected using a high-pressure water truck in the early stage; Periodic water injection using a concrete pumping truck thereafter <p>See Attachment 2 for operation records.</p>

1 F 1	1 F 2	1 F 3	1 F 4	1 F 5	1 F 6	Common Fuel Spent Pool Centralized RW
<ul style="list-style-type: none"> Underground of T/B H/W (3/24 17:10 ~ 3/29 17:30) Transferring from CST SPT (3/31 12:00 ~ 3/31 14:24 , 3/31 15:25 ~ ~ 4/2 15:26) Transferring from H/W CST(4/3 13:55 started ~ 4/10 9:30 finished) <p>Trench discharging operation</p> <ul style="list-style-type: none"> Trench Centralized R/W pellet storage (3/31 9:20 ~ 11:25) 	<ul style="list-style-type: none"> Transferring CST SPT (3/29 16:45 ~ 3/31 14:24 , 3/31 15:25 ~ 4/1 11:50) Transferring H/W CST (4/2 17:10 ~ 4/9 13:10) <p>Trench discharge operation</p> <ul style="list-style-type: none"> Confirmed stoppage of water inflow (4/6 approx. 5:38) Implemented covering with rubber plate and jack base to the part, which water leaked of the pit.(4/6 approx. 13:15) <p>Poured liquid chemicals as a countermeasure for water stop.(4/7 ~ 4/10)</p> <ul style="list-style-type: none"> Transferring from Vertical shaft H/W 4/12 19:35 ~ 4/13 11:00 4/13 15:02 ~ 17:04 finished Transferring from vertical shaft centralized R/W 4/19 10:08 ~ being implemented 	<ul style="list-style-type: none"> Transferring CST SPT surge tank(A) 3/28 17:40 ~ 3/31 8:37 	<ul style="list-style-type: none"> Transferring from centralized RW T/B (4/2 14:25 started) Increased number of transferring pump from 1 to 5. Transferring pump is used from Centralized RW to T/B (4/3 10:00 ~ 4/4 9:22) Stopped transferring due to the increase of water level at the vertical shaft of 1F3 	<ul style="list-style-type: none"> Discharging contaminated water from sub-drain to the sea. Amount of discharge : 950m3 (4/5 started at 17:25 ~ 4/8 finished at 12:14) RHR pump room、 draw accumulated contaminated water at CS pump room to torus room(3/28 ~ continuing) R/B discharge operation Transferring from CS room torus room (3/28 ~ continuing) 	<ul style="list-style-type: none"> Underground of R/W discharge to H/W (4/1 13:40 ~ 4/2 10:00) Discharging contaminated water from sub-drain pit to the sea. Amount of discharge : 372.6m3 (4/4 started at 21:00 ~ 4/9 finished at 18:52) T/B H/W 移送 (4/19) 	<ul style="list-style-type: none"> Discharging accumulated contaminated water at centralized RW (4/4 started at 19:03 ~ 4/10 finished at 17:40). Amount of discharge : 9070m3 Countermeasure for water stop at process building. Preventing underground water inflow to the building. 4/16 ~ 4/18 Completed concrete installation Transferring high doze water of Unit 2 to centralized RW. (4/19 10:08 ~)

Volume of water injected into reactors at Fukushima Daiichi Units 1 - 3 <Approximate values>

(Start of seawater injection*) ~ May 15, 2011)

Text in red: Corrections
(Corresponding cumulative figures have also been corrected.)

*) Unit 1 received 80kL of freshwater before the start of seawater injection on March 12. Unit 3 received an unspecified amount of freshwater on March 12 until the operation switched to seawater on March 13.

(Note)The abovementioned volume of water injected includes a calculated value based on the readings from makeshift flow meter, etc., and does not take into account transient fluctuations of flow volume. The figure may therefore be different from the actual amount of water injected into the reactor.

The injection volume figures are rounded at the decimal point. The cumulative figures and total figures may not correspond to the sum of the applicable figures.

Date	Fukushima Daiichi NPS Unit 1			Fukushima Daiichi NPS Unit 2			Fukushima Daiichi NPS Unit 3		
	Injection volume (per day)	Cumulative total (seawater)	Cumulative total (freshwater)	Injection volume (per day)	Cumulative total (seawater)	Cumulative total (freshwater)	Injection volume (per day)	Cumulative total (seawater)	Cumulative total (freshwater)
March 12, 2011	Approx. 31 kL (Seawater)	Approx. 31 kL							
March 13, 2011	Approx. 259 kL (Seawater)	Approx. 290 kL					Approx. 389 kL (Seawater)	Approx. 389 kL	
March 14, 2011	Approx. 56 kL (Seawater)	Approx. 346 kL		Approx. 320 kL (Seawater)	Approx. 320 kL		Approx. 505 kL (Seawater)	Approx. 893 kL	
March 15, 2011	Approx. 259 kL (Seawater)	Approx. 605 kL		Approx. 1,872 kL (Seawater)	Approx. 2,192 kL		Approx. 774 kL (Seawater)	Approx. 1,667 kL	
March 16, 2011	Approx. 259 kL (Seawater)	Approx. 864 kL		Approx. 1,872 kL (Seawater)	Approx. 4,064 kL		Approx. 864 kL (Seawater)	Approx. 2,531 kL	
March 17, 2011	Approx. 294 kL (Seawater)	Approx. 1,158 kL		Approx. 1,157 kL (Seawater)	Approx. 5,221 kL		Approx. 490 kL (Seawater)	Approx. 3,021 kL	
March 18, 2011	Approx. 475 kL (Seawater)	Approx. 1,633 kL		Approx. 802 kL (Seawater)	Approx. 6,023 kL		Approx. 360 kL (Seawater)	Approx. 3,381 kL	
March 19, 2011	Approx. 449 kL (Seawater)	Approx. 2,082 kL		Approx. 711 kL (Seawater)	Approx. 6,734 kL		Approx. 494 kL (Seawater)	Approx. 3,875 kL	
March 20, 2011	Approx. 48 kL (Seawater)	Approx. 2,130 kL		Approx. 480 kL (Seawater)	Approx. 7,214 kL		Approx. 393 kL (Seawater)	Approx. 4,268 kL	
March 21, 2011	Approx. 38 kL (Seawater)	Approx. 2,167 kL		Approx. 384 kL (Seawater)	Approx. 7,598 kL		Approx. 24 kL (Seawater)	Approx. 4,292 kL	
March 22, 2011	Approx. 42 kL (Seawater)	Approx. 2,209 kL		Approx. 261 kL (Seawater)	Approx. 7,860 kL		Approx. 24 kL (Seawater)	Approx. 4,316 kL	
March 23, 2011	Approx. 301 kL (Seawater)	Approx. 2,510 kL		Approx. 279 kL (Seawater)	Approx. 8,138 kL		Approx. 24 kL (Seawater)	Approx. 4,340 kL	
March 24, 2011	Approx. 226 kL (Seawater)	Approx. 2,736 kL		Approx. 278 kL (Seawater)	Approx. 8,416 kL		Approx. 69 kL (Seawater)	Approx. 4,409 kL	
March 25, 2011	Approx. 106 kL (Seawater)	Approx. 2,842 kL		Approx. 478 kL (Seawater)	Approx. 8,894 kL		Approx. 271 kL (Seawater)	Approx. 4,680 kL	
	Approx. 60 kL (Fresh water)		Approx. 60 kL	Approx. 207 kL (Seawater)	Approx. 9,101 kL		Approx. 88 kL (Fresh water)		Approx. 88 kL
March 26, 2011	Approx. 173 kL (Fresh water)		Approx. 233 kL	Approx. 245 kL (Fresh water)		Approx. 245 kL	Approx. 336 kL (Fresh water)		Approx. 424 kL
March 27, 2011	Approx. 169 kL (Fresh water)		Approx. 402 kL	Approx. 382 kL (Fresh water)		Approx. 627 kL	Approx. 311 kL (Fresh water)		Approx. 735 kL
March 28, 2011	Approx. 169 kL (Fresh water)		Approx. 571 kL	Approx. 169 kL (Fresh water)		Approx. 797 kL	Approx. 295 kL (Fresh water)		Approx. 1,030 kL
March 29, 2011	Approx. 196 kL (Fresh water)		Approx. 767 kL	Approx. 168 kL (Fresh water)		Approx. 965 kL	Approx. 241 kL (Fresh water)		Approx. 1,271 kL
March 30, 2011	Approx. 192 kL (Fresh water)		Approx. 958 kL	Approx. 192 kL (Fresh water)		Approx. 1,157 kL	Approx. 167 kL (Fresh water)		Approx. 1,438 kL
March 31, 2011	Approx. 192 kL (Fresh water)		Approx. 1,150 kL	Approx. 216 kL (Fresh water)		Approx. 1,373 kL	Approx. 167 kL (Fresh water)		Approx. 1,605 kL
April 1, 2011	Approx. 184 kL (Fresh water)		Approx. 1,334 kL	Approx. 216 kL (Fresh water)		Approx. 1,589 kL	Approx. 167 kL (Fresh water)		Approx. 1,772 kL
April 2, 2011	Approx. 165 kL (Fresh water)		Approx. 1,499 kL	Approx. 213 kL (Fresh water)		Approx. 1,802 kL	Approx. 167 kL (Fresh water)		Approx. 1,939 kL
April 3, 2011	Approx. 147 kL (Fresh water)		Approx. 1,646 kL	Approx. 192 kL (Fresh water)		Approx. 1,994 kL	Approx. 173 kL (Fresh water)		Approx. 2,112 kL
April 4, 2011	Approx. 144 kL (Fresh water)		Approx. 1,790 kL	Approx. 192 kL (Fresh water)		Approx. 2,185 kL	Approx. 168 kL (Fresh water)		Approx. 2,280 kL
April 5, 2011	Approx. 144 kL (Fresh water)		Approx. 1,934 kL	Approx. 192 kL (Fresh water)		Approx. 2,377 kL	Approx. 168 kL (Fresh water)		Approx. 2,448 kL
April 6, 2011	Approx. 144 kL (Fresh water)		Approx. 2,078 kL	Approx. 192 kL (Fresh water)		Approx. 2,568 kL	Approx. 168 kL (Fresh water)		Approx. 2,616 kL
April 7, 2011	Approx. 144 kL (Fresh water)		Approx. 2,222 kL	Approx. 187 kL (Fresh water)		Approx. 2,755 kL	Approx. 168 kL (Fresh water)		Approx. 2,784 kL
April 8, 2011	Approx. 144 kL (Fresh water)		Approx. 2,366 kL	Approx. 168 kL (Fresh water)		Approx. 2,923 kL	Approx. 168 kL (Fresh water)		Approx. 2,952 kL
April 9, 2011	Approx. 144 kL (Fresh water)		Approx. 2,510 kL	Approx. 168 kL (Fresh water)		Approx. 3,091 kL	Approx. 168 kL (Fresh water)		Approx. 3,120 kL
April 10, 2011	Approx. 144 kL (Fresh water)		Approx. 2,654 kL	Approx. 168 kL (Fresh water)		Approx. 3,259 kL	Approx. 168 kL (Fresh water)		Approx. 3,288 kL
April 11, 2011	Approx. 139 kL (Fresh water)		Approx. 2,793 kL	Approx. 162 kL (Fresh water)		Approx. 3,421 kL	Approx. 162 kL (Fresh water)		Approx. 3,450 kL
April 12, 2011	Approx. 144 kL (Fresh water)		Approx. 2,937 kL	Approx. 168 kL (Fresh water)		Approx. 3,589 kL	Approx. 168 kL (Fresh water)		Approx. 3,618 kL
April 13, 2011	Approx. 144 kL (Fresh water)		Approx. 3,081 kL	Approx. 168 kL (Fresh water)		Approx. 3,757 kL	Approx. 168 kL (Fresh water)		Approx. 3,786 kL
April 14, 2011	Approx. 144 kL (Fresh water)		Approx. 3,225 kL	Approx. 168 kL (Fresh water)		Approx. 3,925 kL	Approx. 168 kL (Fresh water)		Approx. 3,954 kL
April 15, 2011	Approx. 144 kL (Fresh water)		Approx. 3,369 kL	Approx. 167 kL (Fresh water)		Approx. 4,092 kL	Approx. 168 kL (Fresh water)		Approx. 4,122 kL
April 16, 2011	Approx. 144 kL (Fresh water)		Approx. 3,513 kL	Approx. 168 kL (Fresh water)		Approx. 4,260 kL	Approx. 168 kL (Fresh water)		Approx. 4,290 kL
April 17, 2011	Approx. 144 kL (Fresh water)		Approx. 3,657 kL	Approx. 168 kL (Fresh water)		Approx. 4,428 kL	Approx. 168 kL (Fresh water)		Approx. 4,458 kL
April 18, 2011	Approx. 144 kL (Fresh water)		Approx. 3,801 kL	Approx. 168 kL (Fresh water)		Approx. 4,595 kL	Approx. 168 kL (Fresh water)		Approx. 4,626 kL
April 19, 2011	Approx. 144 kL (Fresh water)		Approx. 3,945 kL	Approx. 168 kL (Fresh water)		Approx. 4,763 kL	Approx. 168 kL (Fresh water)		Approx. 4,794 kL
April 20, 2011	Approx. 134 kL (Fresh water)		Approx. 4,079 kL	Approx. 168 kL (Fresh water)		Approx. 4,931 kL	Approx. 144 kL (Fresh water)		Approx. 4,938 kL
April 21, 2011	Approx. 139 kL (Fresh water)		Approx. 4,218 kL	Approx. 169 kL (Fresh water)		Approx. 5,100 kL	Approx. 154 kL (Fresh water)		Approx. 5,092 kL
April 22, 2011	Approx. 144 kL (Fresh water)		Approx. 4,362 kL	Approx. 168 kL (Fresh water)		Approx. 5,268 kL	Approx. 161 kL (Fresh water)		Approx. 5,254 kL
April 23, 2011	Approx. 143 kL (Fresh water)		Approx. 4,505 kL	Approx. 166 kL (Fresh water)		Approx. 5,434 kL	Approx. 160 kL (Fresh water)		Approx. 5,413 kL
April 24, 2011	Approx. 143 kL (Fresh water)		Approx. 4,649 kL	Approx. 167 kL (Fresh water)		Approx. 5,601 kL	Approx. 163 kL (Fresh water)		Approx. 5,576 kL
April 25, 2011	Approx. 143 kL (Fresh water)		Approx. 4,792 kL	Approx. 168 kL (Fresh water)		Approx. 5,769 kL	Approx. 164 kL (Fresh water)		Approx. 5,741 kL
April 26, 2011	Approx. 145 kL (Fresh water)		Approx. 4,937 kL	Approx. 167 kL (Fresh water)		Approx. 5,936 kL	Approx. 161 kL (Fresh water)		Approx. 5,902 kL
April 27, 2011	Approx. 200 kL (Fresh water)		Approx. 5,136 kL	Approx. 167 kL (Fresh water)		Approx. 6,103 kL	Approx. 161 kL (Fresh water)		Approx. 6,063 kL
April 28, 2011	Approx. 240 kL (Fresh water)		Approx. 5,376 kL	Approx. 168 kL (Fresh water)		Approx. 6,271 kL	Approx. 163 kL (Fresh water)		Approx. 6,226 kL
April 29, 2011	Approx. 185 kL (Fresh water)		Approx. 5,562 kL	Approx. 167 kL (Fresh water)		Approx. 6,438 kL	Approx. 159 kL (Fresh water)		Approx. 6,386 kL
April 30, 2011	Approx. 144 kL (Fresh water)		Approx. 5,706 kL	Approx. 166 kL (Fresh water)		Approx. 6,604 kL	Approx. 156 kL (Fresh water)		Approx. 6,542 kL
May 1, 2011	Approx. 144 kL (Fresh water)		Approx. 5,850 kL	Approx. 166 kL (Fresh water)		Approx. 6,769 kL	Approx. 157 kL (Fresh water)		Approx. 6,699 kL
May 2, 2011	Approx. 143 kL (Fresh water)		Approx. 5,993 kL	Approx. 168 kL (Fresh water)		Approx. 6,937 kL	Approx. 163 kL (Fresh water)		Approx. 6,861 kL

Appended 6

Date	Fukushima Daiichi NPS Unit 1			Fukushima Daiichi NPS Unit 2			Fukushima Daiichi NPS Unit 3		
	Injection volume (per day)	Cumulative total (seawater)	Cumulative total (freshwater)	Injection volume (per day)	Cumulative total (seawater)	Cumulative total (freshwater)	Injection volume (per day)	Cumulative total (seawater)	Cumulative total (freshwater)
May 3, 2011	Approx. 143 kL (Fresh water)		Approx. 6,136 kL	Approx. 168 kL (Fresh water)		Approx. 7,105 kL	Approx. 165 kL (Fresh water)		Approx. 7,027 kL
May 4, 2011	Approx. 144 kL (Fresh water)		Approx. 6,280 kL	Approx. 167 kL (Fresh water)		Approx. 7,272 kL	Approx. 195 kL (Fresh water)		Approx. 7,222 kL
May 5, 2011	Approx. 144 kL (Fresh water)		Approx. 6,424 kL	Approx. 168 kL (Fresh water)		Approx. 7,440 kL	Approx. 216 kL (Fresh water)		Approx. 7,438 kL
May 6, 2011	Approx. 172 kL (Fresh water)		Approx. 6,596 kL	Approx. 168 kL (Fresh water)		Approx. 7,608 kL	Approx. 216 kL (Fresh water)		Approx. 7,654 kL
May 7, 2011	Approx. 192 kL (Fresh water)		Approx. 6,788 kL	Approx. 168 kL (Fresh water)		Approx. 7,776 kL	Approx. 216 kL (Fresh water)		Approx. 7,870 kL
May 8, 2011	Approx. 192 kL (Fresh water)		Approx. 6,980 kL	Approx. 168 kL (Fresh water)		Approx. 7,944 kL	Approx. 216 kL (Fresh water)		Approx. 8,086 kL
May 9, 2011	Approx. 192 kL (Fresh water)		Approx. 7,172 kL	Approx. 168 kL (Fresh water)		Approx. 8,112 kL	Approx. 216 kL (Fresh water)		Approx. 8,302 kL
May 10, 2011	Approx. 192 kL (Fresh water)		Approx. 7,364 kL	Approx. 167 kL (Fresh water)		Approx. 8,279 kL	Approx. 216 kL (Fresh water)		Approx. 8,518 kL
May 11, 2011	Approx. 191 kL (Fresh water)		Approx. 7,556 kL	Approx. 168 kL (Fresh water)		Approx. 8,446 kL	Approx. 216 kL (Fresh water)		Approx. 8,733 kL
May 12, 2011	Approx. 190 kL (Fresh water)		Approx. 7,746 kL	Approx. 167 kL (Fresh water)		Approx. 8,613 kL	Approx. 235 kL (Fresh water)		Approx. 8,968 kL
May 13, 2011	Approx. 191 kL (Fresh water)		Approx. 7,936 kL	Approx. 166 kL (Fresh water)		Approx. 8,779 kL	Approx. 287 kL (Fresh water)		Approx. 9,255 kL
May 14, 2011	Approx. 192 kL (Fresh water)		Approx. 8,128 kL	Approx. 168 kL (Fresh water)		Approx. 8,947 kL	Approx. 337 kL (Fresh water)		Approx. 9,592 kL
May 15, 2011	Approx. 213 kL (Fresh water)		Approx. 8,341 kL	Approx. 168 kL (Fresh water)		Approx. 9,115 kL	Approx. 370 kL (Fresh water)		Approx. 9,963 kL
	Total		Approx. 11,183 kL	Total		Approx. 18,216 kL	Total		Approx. 14,643 kL

※Reference-1 shows the injection volumes (approximate) calculated based on the readings of firefighting pumps' flow meters for the period when the volume was measured with the Accident Management Panel (from March 18 to March 25, 2011 with some variations from unit to unit).

Status of injecting water into the spent fuel pool in Fukushima Daiichi Nuclear Power Station

Unit 1

Date	Measure	Type	Amount of water injection(t)
3/31 13:03 ~ 16:04	TEPCO's concrete pumping vehicle(62m-class)	Fresh water	90
4/2 17:16 ~ 17:19	TEPCO's concrete pumping vehicle(62m-class)	Fresh water	(Confirmation of position of water spray)
5/14 15:07 ~ 15:18 (spraying)	TEPCO's concrete pumping vehicle (62m-class)	Fresh water	(Cancelled due to strong winds)

Unit 2

Date	Measure	Type	Amount of water injection(t)
3/20 15:05 ~ 17:20	FPC	Sea water	40
3/22 16:07 ~ 17:01	FPC	Sea water	18
3/25 10:30 ~ 12:19	FPC	Sea water	30
3/29 16:30 ~ 18:25	F P C	Fresh water	15 ~ 30
3/30 19:05 ~ 23:50	F P C	Fresh water	Below 20
4/1 14:56 ~ 17:05	F P C	Fresh water	70
4/4 11:05 ~ 13:37	F P C	Fresh water	70
4/7 13:29 ~ 14:34	F P C	Fresh water	36
4/10 10:37 ~ 12:38	F P C	Fresh water	60
4/13 13:15 ~ 14:55	F P C	Fresh water	60
4/16 10:13 ~ 11:54	F P C	Fresh water	45
4/19 16:08 ~ 17:28	F P C	Fresh water	47
4/22 15:55 ~ 17:40	F P C	Fresh water	50
4/25 10:12 ~ 11:18	F P C	Fresh water	38
4/28 10:15 ~ 11:28	F P C	Fresh water	43
5/2 10:05 ~ 11:40	F P C	Fresh water	55
5/6 9:36 ~ 11:16	F P C	Fresh water	58
5/10 13:09 ~ 14:45	F P C	Fresh water	56
5/14 13:00 ~ 14:37	F P C	Fresh water	56

Status of Water Injection to Spent Fuel Pool of Fukushima Daiichi Nuclear Power Station

Unit 3

Date	Measure	Type	Amount of Water Injection(t)
3/17 9:48 ~ 10:01	Helicopter, Self-Defense Force	Sea water	30
3/17 19:05 ~ 19:13	The riot's high-pressure water cannon truck	Sea water	44
3/17 19:35 ~ 19:45 ~ 19:53 ~ , 20:00 ~ 20:07 ~ 20:09	High-pressure water cannon truck, Self-Defense Force	Real water	30
3/18 approx. 14:00 ~ 14:38	High-pressure water cannon truck, Self-Defense Force	Real water	40
3/18 14:42 ~ 14:45	High-pressure water cannon truck, US Forces	Real water	2
3/19 0:30 ~ 1:10	Bending spray tower vehicle etc, Tokyo Fire Department	Sea water	60
3/19 14:10 ~ 3/20 3:40	Bending spray tower vehicle etc, Tokyo Fire Department	Sea water	2430
3/20 approx. 21:36 ~ 3/21 3:58	Bending spray tower vehicle etc, Tokyo Fire Department	Sea water	1137
3/22 15:10 ~ 15:59	Bending spray tower vehicle etc, Tokyo Fire Department (Tokyo Fire Department · Osaka municipal Fire Department)	Sea water	150
3/23 11:03 ~ 13:20	FPC	Sea water	35
3/24 approx. 5:35 ~ approx. 16:05	FPC	Sea water	120
3/25 13:28 ~ 16:00	Bending spray tower vehicle etc, Tokyo Fire Department	Sea water	450
3/27 12:34 ~ 14:36	TEPCO concrete pumping vehicle(52m class)	Sea water	100
3/29 14:17 ~ 18:18	TEPCO concrete pumping vehicle(52m class)	Fresh water	100
3/31 16:30 ~ 19:33	TEPCO concrete pumping vehicle(52m class)	Fresh water	105
4/2 9:52 ~ 12:54	TEPCO concrete pumping vehicle(52m class)	Fresh water	75
4/4 17:03 ~ 19:19	TEPCO concrete pumping vehicle(52m class)	Fresh water	70
4/7 6:53 ~ 8:53	TEPCO concrete pumping vehicle(52m class)	Fresh water	70
4/8 17:06 ~ 20:00	TEPCO concrete pumping vehicle(52m class)	Fresh water	75
4/10 17:15 ~ 19:15	TEPCO concrete pumping vehicle(52m class)	Fresh water	80
4/12 16:26 ~ 17:16	TEPCO concrete pumping vehicle(62m class)	Fresh water	35
4/14 15:56 ~ 16:32	TEPCO concrete pumping vehicle(62m class)	Fresh water	25
4/18 14:17 ~ 15:02	TEPCO concrete pumping vehicle(62m class)	Fresh water	30
4/22 14:19 ~ 15:40	TEPCO concrete pumping vehicle(62m class)	Fresh water	50
4/26 12:00 ~ 12:02	TEPCO concrete pumping vehicle(62m class)	Fresh water	(confirmed water surface)
4/26 12:25 ~ 14:02	FPC	Fresh water	47.5
5/8 11:38 (measured water level) 12:10 ~ 14:10 (water injection) 14:10 ~ 14:50 (measured water level, sampling)	FPC	Fresh water	(measured water level, sampling) 60
5/9 12:14 ~ 15:00 (water injection) (measured water level around the time of water injection)	FPC	Fresh water	(measured water level) 80

Unit 4

Date	Measure	Type	Amount of Water Injection(t)
3/20 8:21 ~ 9:40	High-pressure water cannon truck, Self-Defense Force	Real water	80
3/20 18:30頃 ~ 19:46	High-pressure water cannon truck, Self-Defense Force	Real water	80
3/21 6:37 ~ 8:41	High-pressure water cannon truck, Self-Defense Force	Real water	90
3/21 8:38 ~ 8:41	High-pressure water cannon truck, US Forces	Real water	2.2
3/22 17:17 ~ 20:32	TEPCO concrete pumping vehicle(58m class)	Sea water	150
3/23 10:00 ~ 13:02	TEPCO concrete pumping vehicle(58m class)	Sea water	125
3/24 14:36 ~ 17:30	TEPCO concrete pumping vehicle(58m class)	Sea water	150
3/25 6:05 ~ 10:20	FPC	Sea water	21
3/25 19:05 ~ 22:07	TEPCO concrete pumping vehicle(58m class)	Sea water	150
3/27 16:55 ~ 19:25	TEPCO concrete pumping vehicle(58m class)	Sea water	125
3/30 14:04 ~ 18:33	TEPCO concrete pumping vehicle(58m class)	Fresh water	140
4/1 8:28 ~ 14:14	TEPCO concrete pumping vehicle(58m class)	Fresh water	180
4/3 17:14 ~ 22:16	TEPCO concrete pumping vehicle(58m class)	Fresh water	180
4/5 17:35 ~ 18:22	TEPCO concrete pumping vehicle (62m class)	Fresh water	20
4/7 18:23 ~ 19:40	TEPCO concrete pumping vehicle (62m class)	Fresh water	38
4/9 17:07 ~ 19:24	TEPCO concrete pumping vehicle (62m class)	Fresh water	90
4/13 0:30 ~ 6:57	TEPCO concrete pumping vehicle (62m class)	Fresh water	195
4/15 14:30 ~ 18:29	TEPCO concrete pumping vehicle (62m class)	Fresh water	140
4/17 17:39 ~ 21:22	TEPCO concrete pumping vehicle (62m class)	Fresh water	140
4/19 10:17 ~ 11:35	TEPCO concrete pumping vehicle (62m class)	Fresh water	40
4/20 17:08 ~ 20:31	TEPCO concrete pumping vehicle (62m class)	Fresh water	100
4/21 17:14 ~ 21:20	TEPCO concrete pumping vehicle (62m class)	Fresh water	140
4/22 17:52 ~ 23:53	TEPCO concrete pumping vehicle (62m class)	Fresh water	200
4/23 12:30 ~ 16:44	TEPCO concrete pumping vehicle (62m class)	Fresh water	140
4/24 12:25 ~ 17:07	TEPCO concrete pumping vehicle (62m class)	Fresh water	165
4/25 18:15 ~ 4/26 0:26	TEPCO concrete pumping vehicle (62m class)	Fresh water	210
4/26 16:50 ~ 20:35	TEPCO concrete pumping vehicle (62m class)	Fresh water	130
4/27 12:18 ~ 15:15	TEPCO concrete pumping vehicle (62m class)	Fresh water	85
4/28 11:43 ~ 11:54	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level)

4/28 11:55 ~ 12:07	TEPCO concrete pumping vehicle (62m class)	Fresh water	(sampling)
4/29 10:29 (measured water level), 10:35 (measured temperature)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature)
4/30 10:14 ~ 10:28 (measured water level, measured temperature)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature)
5/1 10:32 ~ 10:38 (measured water level, measured temperature)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature)
5/2 10:10 ~ 10:20 (measured water level, measured temperature)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature)
5/3 10:15 ~ 10:23 (measured water level, measured temperature)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature)
5/4 10:25 ~ 10:35 (measured water level, measured temperature)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature)
5/5 11:55 ~ 12:05 (measured water level, measured temperature) 12:19 ~ 20:46 (spray water)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature) 270
5/6 12:16 (measured water level, measured temperature) 12:38 ~ 17:51 (spray water)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, measured temperature) 180
5/7 11:00 (measured water level, underwater photography, sampling) 14:05 ~ 17:30 (spray water)	TEPCO concrete pumping vehicle (62m class)	Fresh water	(measured water level, underwater photography, sampling) 120
5/9 16:05 ~ 19:05 (spray water)	TEPCO concrete pumping vehicle (62m class)	Fresh water	100
5/11 16:07 ~ 19:38 (spray water)	TEPCO concrete pumping vehicle (62m class)	Fresh water	120
5/13 16:04 ~ 19:04 (spray water)	TEPCO concrete pumping vehicle (62m class)	Fresh water	100

Fukushima Nuclear Power Station 1 ~ 4, Single Wire Circuit Diagram, Temporary Power

