

Summary of Reports on Errors from Operators and Effects on Assessment (1 of 3)

1. Regarding Implementation of Emergency Safety Measures for Other Power Stations Considering the Accident of Fukushima Dai-ichi and Dai-ni Nuclear Power Stations in 2011 (directed on March 30, 2011)

Operator	Site	Outline of Errors	Effects on Assessment
Tohoku Electric Power Co. Inc.	Onagawa NPS	<ol style="list-style-type: none"> 1) Error in the number of hoses needed for pressure loss calculation, concerning the alternative water injection into reactors of Units 1 and 2. 2) Error in specifications (length) of hoses needed for pressure loss calculation, concerning water injection into the spent fuel pool of Unit 1 using fire engines. 3) Error in the difference of height and total pressure loss needed for pressure loss calculation, concerning water injection into the spent fuel pool of Unit 1 using fire engines and indoor hydrants. 4) Error in water density used to assess the water injection quantity needed for core decay heat removal of Units 1 to 3. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because pressure loss is calculated using a correct number of hoses. 2) Assessment is not affected, because pressure loss is calculated using a correct length. 3) Assessment is not affected, because the discharge pressure of fire engines exceeds the corrected total pressure loss. 4) Assessment is not affected, because the water injection quantity needed for decay heat removal is calculated using a correct density.
	Higasidori NPS	<ol style="list-style-type: none"> 1) Error in water density used to assess the water injection quantity needed for core decay heat removal of Unit 1. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because the water injection quantity needed for decay heat removal is calculated using a correct density.
Chubu Electric Power Co., Inc.	Hamaoka NPS	<ol style="list-style-type: none"> 1) Error in capacity and total capacity needed for the action of valves, concerning the calculation of power capacity needed for the operation of the reactor core isolation cooling system of Units 4 and 5. 2) Error in pump specifications (pump head) of portable power pumps that are used in Units 3 to 5. 3) Error in the position (height) of the main control room of Units 1 and 2. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because the corrected total capacity does not exceed the charging capacity. 2) Assessment is not affected, because the corrected pump head exceeds the total pressure loss. 3) The height of the main control room is for reference, and is not a target of assessment.

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Kansai Electric Power Co., Inc.	Ohi PS	<ol style="list-style-type: none"> 1) Error in the capacity of two tanks for pure water of the primary system common to Units 3 and 4, concerning water supply into the spent fuel pit. 2) Error in the capacity and expected oil volume of fuel tanks of the auxiliary boiler (common to Units 1 to 4). 	<ol style="list-style-type: none"> 1) Assessment is not affected, because the assumed water volume used for assessment remains unchanged. 2) Assessment is not affected, because a correct expected oil volume is used for the assessment on the days when a power source vehicle can be fed.
Chugoku Electric Power Co. Inc.	Shimane NPS	<ol style="list-style-type: none"> 1) Error in pump specifications (discharge pressure) of portable fire engines used in Units 1 and 2. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because a correct discharge pressure is used for the assessment of pressure loss.
Japan Atomic Power Co.	Tokai No2. PS	<ol style="list-style-type: none"> 1) Error in the number of hoses needed for water supply to the condensate storage tank. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because more hoses are provided than required.
	Tsuruga PS	<ol style="list-style-type: none"> 1) Error in the cooling period for the removed fuels during periodic inspections, which is used to calculate the water supply volume into the spent fuel pit. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because a correct cooling period is used to calculate the water supply volume.

2. Regarding Reliability Assurance of External Power Supply to Nuclear Power Stations and Reprocessing Facilities (directed on April 15, 2011)

Operator	Site	Outline of Errors	Effects on Assessment
Chugoku Electric Power	Shimane NPS	<ol style="list-style-type: none"> 1) Error in the rated capacity of normal bus for Unit 3, which is used to assess the capability of receiving electricity from transmission lines. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because the corrected bus capacity exceeds the supply capacity for emergency generators.

3. Regarding Implementation of Preparatory Measures for Severe Accidents in Other NPSs Taking into Account the 2011 Accident at Fukushima Dai-ichi NPS (directed on June 7, 2011)

Operator	Site	Outline of Errors	Effects on Assessment
Japan Atomic Power Co.	Tokai No2. PS	<ol style="list-style-type: none"> 1) An incorrect drawing of cable lay-down was inserted in the report, concerning the connection of power source vehicle to secure power for air conditioning systems needed to maintain the working environment in the main control room. 2) Error in specifications (normal load) of the wheel loader for rubble removal. 	<ol style="list-style-type: none"> 1) Assessment is not affected, because cables are correctly laid in accordance with the operating procedures for air conditioning of the main control room, drills are conducted accordingly, and the cable connection between necessary positions and the power source vehicle has been confirmed. 2) Assessment is not affected, because the capability needed for rubble removal by wheel loader is assessed using digging up force, instead of normal load, and the digging up force remains unchanged.

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4. Regarding the Seismic Measures for Switching Yard related to Securing Reliability of External Power Supply for Nuclear Power Stations, etc. (directed on June 7, 2011)

Operator	Site	Outline of Errors	Effects on Assessment
Tohoku Electric Power Co., Inc.	Onagawa NPS	1) An incorrect value was input for calculation, concerning the fitting size of a transformer used to calculate the margin of starting transformer in Unit 1.	1) Assessment is not affected, because margin is over 1, although the margin increased from 17.73 to 22.41 after recalculated without incorrect inputs.
Kansai Electric Power Co., Inc.	Ohi PS	1) An incorrect value was read and used about the dimension between fittings used to calculate the margin of main transformers in Units 3 and 4.	1) Assessment is not affected, because margin is over 1, although the margin increased from 1.86 to 2.04 both in Units 3 and 4 after recalculated with a correct value.
	Takahama PS	1) An incorrect size was used, concerning the bolt used to calculate the margin of starting transformer B in Units 1 and 2. 2) An incorrect value was selected instead of a value with minimum margin, in the process of calculating the margin for main transformers in Units 3 and 4.	1) Assessment is not affected, because margin is over 1, although the margin decreased from 2.27 to 1.45 after recalculated with a correct value. 2) Assessment is not affected, because margin is over 1, although the margin decreased from 3.01 to 2.21 both in Units 3 and 4 after a correct value was selected.
Shikoku Electric Power	Ikata PS	1) An incorrect value was read and used, concerning the height of gravitational center of transformer used to calculate the margin of starting transformer in Unit 1.	1) Assessment is not affected, because margin is over 1, although the margin increased from 1.53 to 2.15 after recalculated with a correct value.
Japan Atomic Power Co.	Tokai No2. NPS	1) A value was read and used from the old drawing created before the system (a cooler) attached to the transformer was renewed, concerning the weight of transformer used to calculate the margin of reserve transformer.	1) Assessment is not affected, because margin is over 1, although the margin decreased from 2.70 to 2.64 after recalculated with a correct value from the latest drawing.