

# Prevention of Turbine sudden malfunction

- High-level management of the phosphoric ester acid synthetic oil
- The clincher of the trouble prevention measure for Electro-hydraulic governor



↑ Oil, gas, thermal power plant has 1,100MW output capacity

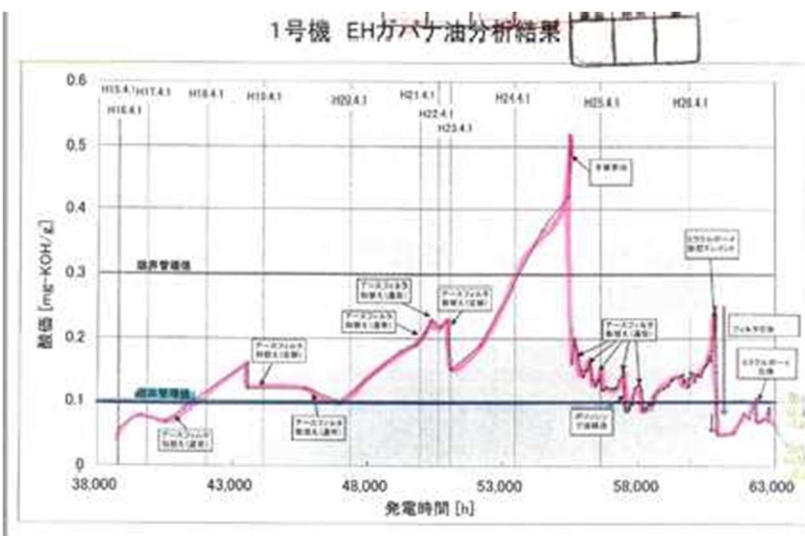


← Even though exist mesh type filter and the activated clay filter are used, the increasing of the acid value could not be prevented.

↑ **Miracle Boy SRC-812-6V**  
Only connect the IN/OUT pipe of the filtration device to the control oil tank.



The malfunction of hydraulic pump and control valves cause sudden malfunction of the generator



Though the activated clay was changed frequently, the acid value is not below the control standard value and exceeds control threshold limit depend on the generator's load.

However, Miracle Boy helps to keep below the standard value.

<b>Current Condition</b>	Target facility	Steam turbine Electro-hydraulic rotation speed control device at Oil and gas, thermal plant
	Target oil	Phosphoric ester acid synthetic fire resist hydraulic oil
	Existing filtration device	High-precision mesh type filtration and the activated clay filtration
	Problem	Even though high-priced oil and filtration elements are installed, the sudden malfunction cannot be prevented.
<b>Measures</b>	Miracle Boy installation	Connect Miracle Boy to the oil tank
	Miracle Boy model	SRC-812-6V-VS-with sensor (Element: GE-41-MR1)
<b>Result</b>	Cleanliness NAS class 7 → <b>NAS class 3!</b> Acid value (control value 0.1) exceeds 0.5 → <b>down to 0.073</b> No longer needed <b>New oil JPY 5,000,000 and Waste oil disposal JPY 4,000,000</b> for oil exchanging	
<b>Customer Reviews</b>	We could not stop the acid value increasing even we tool any measures so far. However, now we do not need to worry about the shutdown of generator due to sudden malfunction thanks to Miracle Boy.	

【MBSM-CASE5660】



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