A panel of experts under the Nuclear Regulation Authority has conditionally approved the trial of a new device to remove radioactive substances from tainted water at the Fukushima No. 1 nuclear complex.

The advanced liquid processing system trial will fully begin in March at the earliest if the nuclear watchdog gives the go-ahead.

At a meeting Thursday, the panel members approved the trial operation of ALPS on condition that No. 1 plant operator Tokyo Electric Power Co. conducts several tests to check the strength of containers used to store radioactive materials removed from the contaminated water.

According to Tepco, ALPS can remove most of 62 different kinds of radioactive substances, including strontium, contained in the contaminated water threatening to inundate the facility.

The utility apparently believes that if the amounts of such substances are sharply reduced thanks to ALPS, it would become easier to win over local fishery officials for its plan to spew out treated water into the Pacific.

Yet even ALPS cannot remove tritium, which has a half life of 12 years. At present, around 230,000 tons of radiation-tainted water are being stored on the premises of the Fukushima No. 1 plant, and it is believed this amount contains hundreds of trillions of becquerels of tritium.

Kyoto University professor Ikuji Takagi indicated the water should not be discharged unless the tritium can be removed.