

## **Required Technology**

It is not required that all of the prerequisites below shall be met at the time of submitting the proposal, but the client anticipates proposals for a technology that can ultimately meet all.

### **【Target specifications】**

- For ALPS treated water, the concentration of tritium can be reduced from  $10^5$  to  $10^6$  Bq/L of tritium to  $10^3$  Bq/L or less by separation treatment, and the facility performance should have a technical prospect that will stably enable treatment of 50-500 m<sup>3</sup> per day of ALPS treated water.

### **【Principle that forms the basis of technology】**

One (or both) of the following requirements should be satisfied (A patent only is not enough).

- The proposal principle of separation technology has been widely recognized at academic conferences, etc.
- The proposal principle of separation technology has been recognized by third parties, e.g., included in peer-reviewed papers.

### **【Separation Capacity】**

- It can be expected that the concentration of tritium after separation processing will be reduced to 1/1,000 or less.
- The balance and physical state of tritium before and after the separation process should be explained using experimental data as below.
  - Physical state, quantity and tritium concentration of treated water before separation treatment
  - Physical state, quantity, and tritium concentration on depleted side after separation
  - Physical state, quantity, and tritium concentration on the concentrated side after separation processing

### **【Measuring method for tritium concentration】**

- The reliability of the tritium concentration measurement system before and after the separation process can be explained.

**[Operation Capacity]**

- The technology should have a technical prospect that will enable to operate treatment of 50-500 m<sup>3</sup> per day of ALPS treated water.
- If you have a track record, the conditions at that time should be shown concretely.

**[Others]**

It should not interfere with possible ownership (exclusive rights, priority rights, etc.).