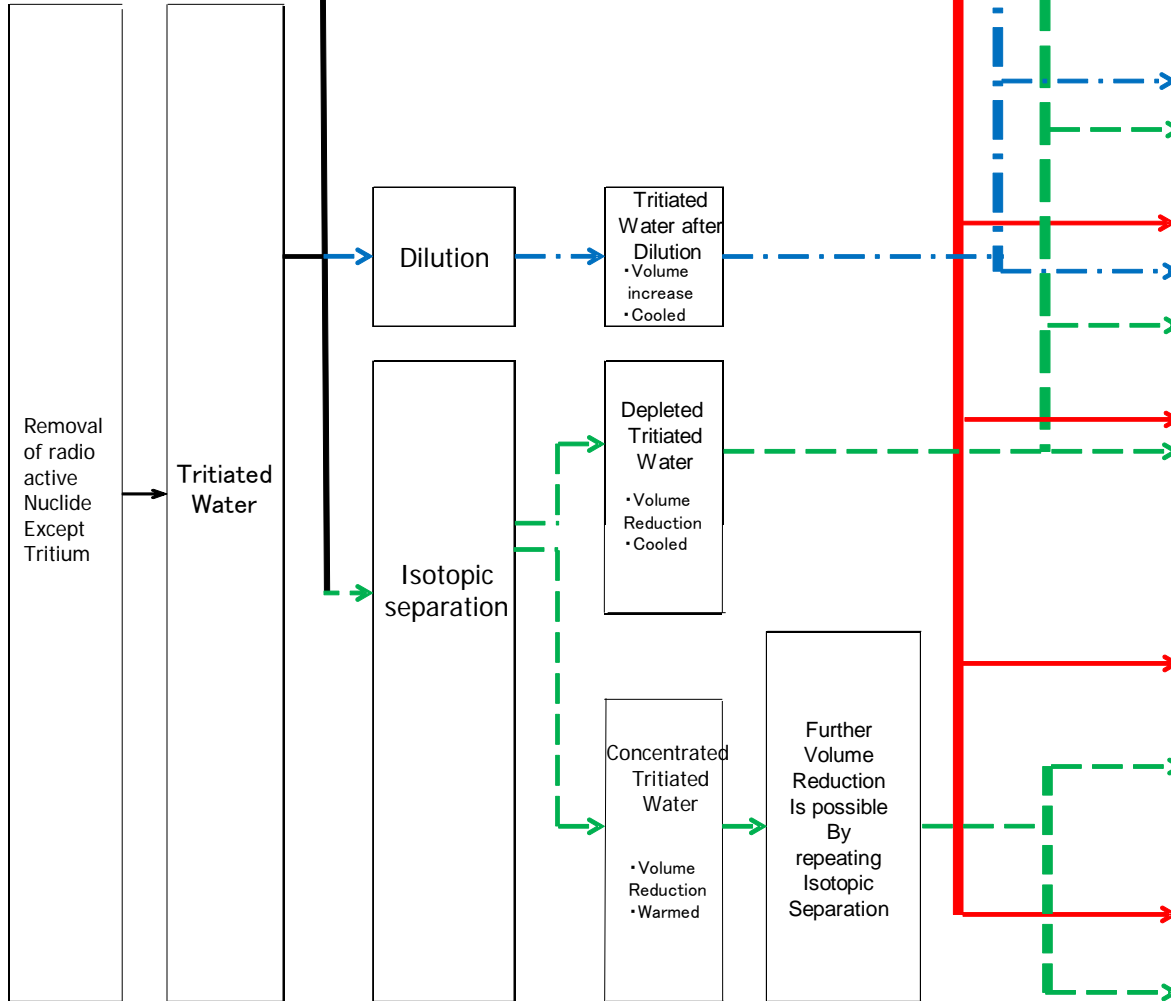


Options and Challenges for the Final Form of Tritium Disposition (Draft)

<Options and Challenges>

<Pretreatment>



Disposal method	Major challenges, etc.	Destination
Injection and disposal into the geological formation	<ul style="list-style-type: none"> Decision on method of underground injection (selection of geological formation, injection speed, temperature, etc.) Evaluation of the dissipation behavior after underground injection Evaluation of impacts on human body, etc. after dissipation Development of the system to trace the behavior after injection 	Underground
Release to the sea	<ul style="list-style-type: none"> Decision on method to release to the sea (destination of release, amount of release, temperature, etc.) Evaluation of the dissipation behavior after release Evaluation of impacts on human body, etc. after dissipation Development of a system to trace the behavior after release 	Sea
Release to the Atmosphere in the form of steam	<ul style="list-style-type: none"> Decision on the method to release to the atmosphere in the form of steam (speed of release, temperature, etc.) Evaluation of the dissipation behavior after release as steam Evaluation of impacts on human body, etc. after dissipation Development of a system to trace the behavior after release as steam 	Atmosphere
Release to the Atmosphere As hydrogen Gas after reducing to Hydrogen	<ul style="list-style-type: none"> Decision on the method to release into the atmosphere (speed of release, temperature, etc.) Evaluation of the dissipation behavior after release Evaluation of impacts on human body, etc. after release Development of the system to trace the behavior after release Dissipation of the system to trace the behavior after release 	Atmosphere
Underground burial and disposal after solidification and gelification	<ul style="list-style-type: none"> Decision on the location and the method of burial Evaluation of dissolution behavior from concrete, etc. Evaluation of impacts on human body, etc. after dissolution Development of the system to trace the behavior after dissolution 	Underground
disposal of small amount of highly concentrated tritiated water	<ul style="list-style-type: none"> Selection of the method of disposal Assurance of locations for disposal 	Underground
Storage of significant amount of tritiated water	<ul style="list-style-type: none"> Establishment of an approach to store tritiated water safely for a long time Establishment of a permanent control approach Assurance of locations and tanks for storage 	Facilities
Storage of small amount of highly concentrated tritiated water	<ul style="list-style-type: none"> Selection of the storage/disposal method Establishment of a permanent control approach Assurance of locations for storage and disposal also tanks for storage 	