

# Operational Intervention Level (OIL) and Protective Measures

	Type of Criteria	Overview of Criteria	Default Value *1			Overview of Protective Action
Urgent protective action	OIL1	Criteria whereby residents are told within a few hours to evacuate or stay indoors to prevent effects due to radiation from the ground, inhalation of airborne radioactive material or inadvertent ingestion.	500 $\mu$ Sv/h (radiation dose rate measured at 1m above the ground)			Specify an area and conduct evacuation within a few hours. (Including persons with limited mobility to temporarily stay indoors)
	OIL4	Decontamination criteria to take precautions to prevent external exposure from inadvertent ingestion and skin contamination.	Beta rays: 40,000 cpm (count rate from detector a few cm from the skin)			Based on the criteria of evacuation or temporary relocation, carry out inspection of evacuees at shelters, and quickly carry out simple decontamination if the criteria are exceeded.
Beta rays: 13,000 cpm [Value after 1 month] (count rate from detector a few cm from the skin)						
Early protective action	OIL2	Criteria to restrict consumption of local products*2 and temporarily transfer residents within approximately 1 week to prevent effects due to radiation from the ground, inhalation of airborne radioactive material or inadvertent ingestion.	20 $\mu$ SV/h (radiation dose rate measured at 1m above the ground)			Specify the area within approximately 1 day, restrict the consumption of local products, and carry out temporary transfer within approximately 1 week.
Restrict food and drink intake	Screening standards for food and beverages	As criteria to determine restriction of food and drink consumption through OIL6, criteria used when specifying the area to carry out measurement of radionuclide concentrations in food and drink.	0.5 $\mu$ SV/h (radiation dose rate measured at 1m above the ground)			Specify the area in which to measure radionuclide concentrations in food and drink within a few days.
	OIL6	Criteria used for restricting consumption of food and drink to avoid effects due to radiation from ingestion.	Nuclide	Drinking water Milk and dairy products	Vegetables, cereals, meat, eggs, fish, other	Measure and analyze radionuclide concentrations in food and drink within approximately one week, and swiftly implement restrictions on consumption of items that exceed the criteria.
			Radioactive iodine	300Bq/kg	2,000Bq/kg*3	
			Radioactive cesium	200Bq/kg	500Bq/kg	
			Alpha nuclides of plutonium and transuranium elements	1Bq/kg	10Bq/kg	
Uranium	20Bq/kg	100Bq/kg				

\*1: The "default value" is the OIL value used at the start of an emergency situation, and when the radionuclide composition deposited on the ground becomes clear, the default OIL value is revised if required.

\*2: "Local products" are food products that were produced outdoors in areas directly contaminated by radioactive materials that are consumed within a few weeks (for example vegetables or milk from cows that ate grass in the area).

\*3: Vegetables are included apart from root vegetables and types of potato.