

# PERCHLORATE

## Final Changes to the Massachusetts Contingency Plan – 310 CMR 40.0000. *Effective July 28, 2006*

### MCP Numerical Standards

#### MCP Groundwater Standards

##### MCP Table 1 – 310 CMR 40.0974(2)

Changes to the MCP Groundwater Standards:

Insert a row for Perchlorate between “Pentachlorophenol” and “Petroleum Hydrocarbons”

Oil and/or Hazardous Material	CAS Number	GW-1 Standard	GW-2 Standard	GW-3 Standard
		µg/liter (ppb)	µg/liter (ppb)	µg/liter (ppb)
Perchlorate	-	2	NA	1,000

#### MCP Soil Standards

##### MCP Table 2 - 310 CMR 40.0975(6)(a)

Changes to the MCP Soil Category S-1 Standards Applicable to Soil Where the Combination of Soil & Groundwater Categories Are...

Insert a row for Perchlorate between “Pentachlorophenol” and “Petroleum Hydrocarbons”

Oil and/or Hazardous Material	CAS Number	S-1 Soil & GW-1	S-1 Soil & GW-2	S-1 Soil & GW-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
Perchlorate	-	0.1	0.9	0.9

##### MCP Table 3 - 310 CMR 40.0975(6)(b)

Changes to the MCP Soil Category S-2 Standards Applicable to Soil Where the Combination of Soil & Groundwater Categories Are...

Insert a row for Perchlorate between “Pentachlorophenol” and “Petroleum Hydrocarbons”

Oil and/or Hazardous Material	CAS Number	S-2 Soil & GW-1	S-2 Soil & GW-2	S-2 Soil & GW-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
Perchlorate	-	0.1	5	5

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Oil and/or Hazardous Material	CAS Number	GW-1 Standard	GW-2 Standard	GW-3 Standard
		µg/liter (ppb)	µg/liter (ppb)	µg/liter (ppb)
Perchlorate	-	2	NA	1,000

#### MCP Soil Standards

##### MCP Table 2 - 310 CMR 40.0975(6)(a)

Changes to the MCP Soil Category S-1 Standards Applicable to Soil Where the Combination of Soil & Groundwater Categories Are...

Insert a row for Perchlorate between “Pentachlorophenol” and “Petroleum Hydrocarbons”

Oil and/or Hazardous Material	CAS Number	S-1 Soil & GW-1	S-1 Soil & GW-2	S-1 Soil & GW-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
Perchlorate	-	0.1	0.9	0.9

##### MCP Table 3 - 310 CMR 40.0975(6)(b)

Changes to the MCP Soil Category S-2 Standards Applicable to Soil Where the Combination of Soil & Groundwater Categories Are...

Insert a row for Perchlorate between “Pentachlorophenol” and “Petroleum Hydrocarbons”

Oil and/or Hazardous Material	CAS Number	S-2 Soil & GW-1	S-2 Soil & GW-2	S-2 Soil & GW-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
Perchlorate	-	0.1	5	5

**MCP Table 4 - 310 CMR 40.0975(6)(c)**

Changes to the MCP Soil Category S-3 Standards Applicable to Soil Where the Combination of Soil & Groundwater Categories Are...

**Insert a row for Perchlorate between "Pentachlorophenol" and "Petroleum Hydrocarbons"**

Oil and/or Hazardous Material	CAS Number	S-3 Soil & GW-1	S-3 Soil & GW-2	S-3 Soil & GW-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
Perchlorate	-	0.1	5	5

**MCP Table 5 – 310 CMR 40.0985(6)**

Changes to the MCP Method 2 – Direct Contact Exposure-Based Soil Concentrations Applicable to the Specified Soil Category

**Insert a row for Perchlorate between "Pentachlorophenol" and "Petroleum Hydrocarbons"**

Oil and/or Hazardous Material	CAS Number	Soil Category S-1	Soil Category S-2	Soil Category S-3
		µg/g (ppm)	µg/g (ppm)	µg/g (ppm)
Perchlorate	-	0.9	5	5

**MCP Upper Concentration Limits (UCLs)**

**MCP Table 6 – 310 CMR 40.0996(7)**

Changes to the MCP Upper Concentration Limits (UCLs) in Groundwater and Soil

**Insert a row for Perchlorate between "Pentachlorophenol" and "Petroleum Hydrocarbons"**

Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER	UCLs IN SOIL
		µg/L (ppb)	µg/g (ppm)
Perchlorate	-	10,000	50

**Reportable Concentrations (RCs)**

MCP Massachusetts Oil and Hazardous Material List – 310 CMR 40.160000

Changes to TABLE 1 - Massachusetts Oil and Hazardous Material List (Alphabetical List)

**MODIFY existing entries to read:**

Chemical Name	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	Reportable Concentrations			
				GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
AMMONIUM PERCHLORATE	07790-98-9	10	6,1	0.002	1	0.1	5
SODIUM PERCHLORATE	07601-89-0	10	6,1	0.002	1	0.1	5

**INSERT "Perchlorate Compounds, NOS" and "Potassium Perchlorate" alphabetically on the list, as appropriate:**

Chemical Name	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	Reportable Concentrations			
				GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
PERCHLORATE COMPOUNDS, NOS		10	6,1	0.002	1	0.1	5
POTASSIUM PERCHLORATE	07778-74-7	10	6,1	0.002	1	0.1	5

MCP Massachusetts Oil and Hazardous Material List – 310 CMR 40.160000

Changes to TABLE 2 - Massachusetts Oil and Hazardous Material List (CAS NUMBER ORDER)

**MODIFY existing entries to read:**

CAS NUM.	Chemical Name	DEP RQ (Pounds)	NAME SOURCES	Reportable Concentrations			
				GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
07790-98-9	AMMONIUM PERCHLORATE	10	6,1	0.002	1	0.1	5
07601-89-0	SODIUM PERCHLORATE	10	6,1	0.002	1	0.1	5
07778-74-7	POTASSIUM PERCHLORATE	10	6,1	0.002	1	0.1	5

## Imminent Hazard Evaluations

REPLACE 40.0951 with the following text:

### 40.0951: Purpose and Scope of Imminent Hazard Evaluations

- (1) The site shall be evaluated to determine if an Imminent Hazard exists in accordance with 310 CMR 40.0000. The decision to conduct a quantitative Imminent Hazard Evaluation shall use the Response Action Performance Standard (RAPS) described in 310 CMR 40.0191, and consider the location and nature of the oil and/or hazardous material, the Human or Environmental Receptors which may be exposed, and appropriate guidance published by the Department.
- (2) If the results of this assessment indicate that the conditions at the site pose an Imminent Hazard based upon the criteria described in 310 CMR 40.0955, the Department shall be notified in accordance with 310 CMR 40.0311(7). Subsequent assessments performed as part of an Immediate Response Action shall consider the weight of evidence indicating the potential for an Imminent Hazard when making the evaluations described in 310 CMR 40.0426.
- (3) Notwithstanding the provisions of 310 CMR 40.950 et seq., the concentration of each oil or hazardous material present in a system of water supply used by a public water system, as defined in 310 CMR 22.00, shall not pose an Imminent Hazard or Substantial Hazard for current conditions if the public water system is in compliance with all applicable provisions of 310 CMR 22.00 and any other requirements specified by the Department pursuant to its authority under M.G.L. c. 111, s.160 and 310 CMR 22.00.