

Updated Ground Water Quality Standards – New Jersey

Updated: January 18, 2018

On January 16, 2018¹, NJDEP Site Remediation & Waste Management Program issued updated Ground Water Quality Standards (GWQS) for 23 compounds². These compounds formerly had “interim specific” criteria.

20 of the ground water remediation standards remained unchanged since they were established as interim. The GWQS for the three remaining chemicals are affected as follows:

- Caprolactam: GWQS decreases from 5,000 ug/L to 4,000 ug/L.
- 4,6-Dinitro-o-cresol: GWQS decreases from 1 ug/L to 0.7 ug/L.
- 2-Hexanone: GWQS decreases from 300 ug/L to 40 ug/L.

The full list of compounds affected are listed below:

Compound	CAS #	TCL/TAL Compound	PQL (used for Class I Waters) (µg/L)	GWQS* (used for Class IIA Waters) (µg/L)
Caprolactam [#]	105-60-2	YES	60	4000
1-Chloro-1,1-difluoroethane	75-68-3	No	500	100,000
Cobalt [#]	7440-48-4	YES	0.5	100
Cresols (mixed isomers)	95-48-7	YES	0.1	50
Individual isomers: 2-Methylphenol [#] ; 3-Methylphenol [#] ; 4-Methylphenol [#]	108-39-4			
	106-44-5			
Dichlormid	37764-25-3	No	50	600
1,1-Dichloro-1-fluoroethane	1717-00-6	No	30	500
4,6-Dinitro-o-cresol (2-Methyl-4,6-Dinitrophenol) [#]	534-52-1	YES	0.03	0.7***
1,4-Dioxane [#]	123-91-1	YES	0.1	0.4**
Diphenyl ether	101-84-8	No	10	100
2-Ethyl-1-hexanol	104-76-7	No	0.5	200
Hexahydro-1,3,5-trinitro-1,3,5-triazine	121-82-4	No	0.5	0.5
2-Hexanone [#]	591-78-6	YES	1	40
2-(2-Methyl-4-chlorophenoxy) propionic acid (MCP)	93-65-2	No	0.5	7
2-Methylnaphthalene [#]	91-57-6	YES	10	30
Metolachlor	51218-45-2	No	0.5	100
Perchlorate	14797-73-0	No	3	5
Perfluorononanoic acid (PFNA)	375-95-1	No	0.005	0.01
Strontium	7440-24-6	No	5	2,000
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) [#]	76-13-1	YES	0.3	20,000
1,1,1-trifluoroethane	420-46-2	No	60	5,000
tri-cresyl phosphate (mixed isomers)	1330-78-5	No	0.1	3
Individual isomers: Tri-m-cresyl phosphate; Tri-o-cresyl phosphate; Tri-p-cresyl Phosphate	563-04-2			
	78-32-0			
	78-30-8			

* Higher of PQL and GWQS

** In order to reach this low limit, IAL must utilize SW-846 8270D

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IAL holds certification for these compounds

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Not all interim criteria were upgraded to “specific”, i.e. remediation standards. The following criteria remain designated as interim:

Compound	CAS #	TCL/TAL Compound	PQL (used for Class I Waters) (µg/L)	GWQS* (used for Class IIA Waters) (µg/L)
Acenaphthylene [#]	208-96-8	YES	10	100
Acetonitrile	75-05-8	No	9	100
Benzo(ghi)perylene [#]	191-24-2	YES	0.3	100
4-Chloro-3-methylphenol (3-Methyl-4-chlorophenol) [#]	59-50-7	YES	20	100
Chloroethane [#]	75-00-3	YES	0.5	5
Dimethyl phthalate [#]	131-11-3	YES	10	100
n-Heptane	142-82-5	No	0.5	100
1-Methylnaphthalene [^]	90-12-0	No	0.7	5
n-Propanol [#]	71-23-8	No	40	100
Phenanthrene [#]	85-01-8	YES	0.3	100
1,2,4-Trimethylbenzene [#]	95-63-6	No	0.08	100

[#] IAL holds certification for these compounds

[^] IAL is in applied status/soon to be certified for these compounds

However, interim criteria are still regulated. The DEP regulates discharges for compliance with each specific, interim specific and generic criterion applicable to the discharge pursuant to N.J.A.C.7:9C-1.7. Guidelines for determining generic criterion for “Synthetic Organic” compounds not listed in N.J.A.C. 7:9C Appendix Table 1 (the GWQS) are found in Appendix Table 2.

IAL’s Regulatory Comparison Spreadsheet (RCS) was previously updated to include these criteria with exception of 3 compounds listed above. These were updated on IAL’s RCS as of January 18, 2018.

NOTE:

The requirements of the *Technical Requirements for Site Remediation*³ are to be applied in the evaluation of these new ground water remediation standards at sites.

- Samples for all environmental media shall be analyzed for:
 - The contaminants that may be present as determined during the preliminary assessment and/or from any other information obtained during the remediation; or
 - The Target Compound List plus TICs/Target Analyte List (TCL + TICs/TAL), hexavalent chromium, extractable petroleum hydrocarbons (EPH), and pH when contaminants are unknown or not well documented

References:

¹ http://www.nj.gov/dep/rules/adoptions/adopt_20180116c.pdf

² http://www.nj.gov/dep/rules/rules/njac7_9c.pdf

³ N.J.A.C. 7:26E-2.1(c)1

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