

Triennial Review of Numeric Standards and Proposed Updates to DEQ-7

Consolidation of EPA 304a additions and corrections, human health pesticide toxicology criteria, and expansion of written explanatory material with footnotes

Classification of changes

- A re-write of the introduction, to expand explanation of risk factors and human health advisories and to provide an explanation of the new magnitude/frequency/duration criteria
- Pesticides found in groundwater: 21 new compounds and three metabolites
- EPA National Water Quality Criteria: 5 revisions to existing toxicology limits, eleven new compounds from the priority pollutant list and seven from the non priority pollutant list
- Alteration of footnotes to reflect incorporation of frequency and duration, as well as separating comments specific to either Human Health standards or Aquatic Life standards.
- Alteration of format (8.5x14 landscape to 8.5x11 portrait), and modification of cell contents to allow electronic searches of the entire database, within any field
- Correction to existing standards for typos and incorrect synonyms: 4 corrections

Pesticides

- All of the following pesticides were detected by the monitoring program, as managed by the Montana Department of Agriculture. It is DEQ's responsibility to establish interim numerical standards as authorized under 80-15-201.
- DEQ has sought the support of the regional EPA Toxicologist in making determinations as to the classification of the compounds (toxic, carcinogenic, etc) and the selection of the appropriate cancer slope indices, where appropriate.

Pesticide list

- Aminopyralid
- Azinophos-methyl
- Difenconazole
- Ethion
- Ethofumasate
- Fenbuconazole
- Imazalil
- Imazethapyr
- Mecoprop (MCP)
- Propiconazole
- Prosulfuron
- Sulfosulfuron
- Tebuconazole
- Triclopyr
- Dimethenamid
- Dimethenamid OA
- Flucarbazone
- Flucarbazone sulfonamide
- Imazapic
- Pyrasulfotole
- Azinophos-methyl oxon

List of recommended Criteria changes to the National Water Quality 304a Criteria

- Human Health criteria
- Aquatic Life Criteria
- Acrolein
- Phenol
- Aluminum
- Barium
- Heptachlor

List of new compounds to be added from the National water Quality Criteria for priority pollutants

- Chlorodibromomethane
- Methyl Bromide
- Methylene Chloride
- 2-methyl-4,6-Dinitrophenol
- Bis(2-chloroisopropyl) ether
- Bis(2-ethylhexyl) Phthalate
- 2-chloronaphthalene
- Ideno(1,2,3-CD) Pyrene
- Nitrobenzene
- Alpha-BHC
- Gamma-BHC

List of new compounds to be added from the National water Quality Criteria for non-priority pollutants

- Ether, Bis(chloromethyl)
- Nitrosamines
- Dinitrophenols
- Nitrosodibutylamine,N
- Nitrosodiethylamine,N
- Nitrosopyrrolidone
- Demeton (Aquatic life)
- Diazinon (aquatic life)

Alteration to footnotes

- Footnote 3 identifies an averaging period (one hour average) and exceedance frequency (once in any three year period, on average) for acute aquatic life standards
- Footnote 4 identifies the averaging period (96 hour average concentration) and adds an exceedance frequency (once in any three year period, on average) for chronic aquatic life standards
- These changes would improve the consistency between Montana's permit development/application and EPA 304(a) criteria

Alterations to footnotes

- Footnote 9 is altered to indicate that methods of sample preparation are found in ARM17.30.601 or ARM17.30.1001 and need not be found in both standards. The footnote is also modified to eliminate a reference to an older method for digestion analysis of total recoverable metals from 1982 and cites the new procedure provided in 1994 by the EPA under EPA methods 200.2 Supplement I, Rev 2.8

Alterations to Footnotes

- Footnote 14 is modified to clarify the fact that the aquatic life standard for pentachlorophenol is dependent on pH.
- The current footnote 16 is redundant of footnote 9, with its new citation. The new language proposed would apply to human health standards, indicating that the groundwater concentrations may not exceed the concentrations cited in DEQ-7 at any time and does not modify the averaging period or exceedence frequency components of the human health standards.

Recommended changes to existing Numeric Standards based on new RfD's or new Toxicological Data

- Carbaryl
- Xylene
- Dibutyl phthalate
- Acetochlor
- Chlorpyrifos
- Perchlorates

Final Federal Standards Proposed for New Compounds

- Cresols
- Diazanon
- Dichloropropene
- Propylene glycol
- 1,1,2,2 tetrachloroethane
- Xylene
- Perchlorates