

Negotiated Rule Draft No. 3
Docket No. 58-0102-1801, Dated November 2, 2021

This draft includes revisions based on the August 18, 2021, meeting discussion and review of written comments received. The revisions are highlighted in yellow.

Written comment deadline for this draft – November 22, 2021

Water Quality Standards
IDAPA 58.01.02

210. NUMERIC CRITERIA FOR TOXIC SUBSTANCES FOR WATERS DESIGNATED FOR AQUATIC LIFE, RECREATION, OR DOMESTIC WATER SUPPLY USE.

01. Criteria for Toxic Substances. The criteria of Section 210 apply to surface waters of the state as provided in Tables 1 and 2. Criteria for metals (arsenic through zinc) listed in Tables 1 and 2 are expressed as a dissolved fraction (i.e., passes through a 0.45 micron filter) unless otherwise noted. ~~(3-28-18)~~

a. Table 1 contains criteria ~~set for to~~ protection ~~of~~ aquatic life. ~~Criteria for metals (arsenic through zinc) are expressed as dissolved fraction unless otherwise noted. For purposes of these criteria, dissolved fraction means that which passes through a forty five hundredths (0.45) micron filter.~~ ~~(3-28-18)~~

(Break)

b. Table 2 contains criteria ~~set for to~~ protection ~~of~~ human health. The Water & Fish criteria apply to waters designated for domestic water supply use. The Fish Only criteria apply to waters designated for primary or secondary contact recreation use. (3-28-18)

Table 2. Criteria for Protection of Human Health (based on consumption of:)						
Compound	^a CAS Number	Carcinogen?	Water & Fish (µg/L <u>unless otherwise specified</u>)		Fish Only (µg/L <u>unless otherwise specified</u>)	
Inorganic Compounds/Metals						
Antimony	7440360		5.2	b	190	b
Arsenic ¹	7440382	Y	10	cdj	10	cdj

Note: In 2008, Idaho adopted 10 µg/L as its CWA arsenic criterion for both exposure through fish consumption only and exposure through drinking water+fish consumption, choosing the SDWA MCL due to concerns about background levels that exceed EPA’s 304(a) criteria (docket 58-0102-0801). EPA approved this action in 2010. In June 2015, Northwest Environmental Advocates challenged EPA’s 2010 approval. Court remanded action back to EPA. On September 15, 2016, EPA disapproved Idaho’s adoption of 10 µg/L. Neither EPA nor the state of Idaho has promulgated replacement criteria. For more information, go to <http://www.deq.idaho.gov/epa-actions-on-proposed-standards>.

¹Effective for CWA purposes. Water & Fish value, and footnotes and Fish Only value, and footnotes continue to be effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved. See Arsenic² immediately below.

Arsenic ²	7440382	Y	10; <u>8.0 µg/kg</u> fish tissue	cejk	104.3; <u>8.0 µg/kg</u> fish tissue	cejl
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~~**Note:** In 2008, Idaho adopted 10 µg/L as its CWA arsenic criterion for both exposure through fish consumption only and exposure through drinking water+fish consumption, choosing the SDWA MCL due to concerns about background levels that exceed EPA’s 304(a) criteria (docket 58-0102-0801). EPA approved this action in 2010. In June 2015, Northwest Environmental Advocates challenged EPA’s 2010 approval. Court remanded action back to EPA. On September 15, 2016, EPA disapproved Idaho’s adoption of 10 µg/L. Neither EPA nor the state of Idaho has promulgated replacement criteria. For more information, go to <http://www.deq.idaho.gov/epa-actions-on-proposed-standards>.~~

²Not yet effective for CWA purposes. Water & Fish footnote k, Fish Only value, and Fish Only footnote I are not effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved.

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Footnotes for Table 2. Criteria for Protection of Human Health

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c. Inorganic forms only.

d. Criterion expressed as total recoverable (unfiltered) concentrations.

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j. This criterion is based on the drinking water Maximum ~~Containment~~ Contaminant Level (MCL).

k. Human health criteria for Water & Fish exposure to inorganic arsenic are attained if fish tissue concentrations comply with the Fish Only criterion and water column concentrations do not exceed 10 µg/L.

l. For Fish Only exposure to inorganic arsenic, the human health criterion is:

<u>Fish Muscle/Fillet Tissue (µg/kg wet-weight)</u>	<u>Water Column (µg/L)</u>
<u>8.0¹</u>	<u>4.3²</u>

¹Fish muscle (fillet) tissue element is based on total recoverable inorganic arsenic in muscle or fillet. When sufficient fish tissue data are available, the fish tissue element supersedes the water column element. Fish tissue element will be applied in accordance with Subsection 210.03.e. Single measurement using sufficiently sensitive methods. Based on an average or composite of a minimum of five (5) individual fish of the same species, collected from the same water body and within the same calendar year, where the smallest individual is no less than seventy five percent (75%) of the total length (size) of the largest individual. Not to be exceeded; the Department will evaluate all representative fish tissue data to determine compliance with this criterion element.

²Water column values element are based on total dissolved inorganic arsenic in water. Water column values are the applicable criterion element only in the absence of sufficient fish tissue data.

Footnotes k and l are not effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved.

~~(3-28-18)~~

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03. Applicability. The criteria established in Section 210 are subject to the general rules of applicability in the same way and to the same extent as are the other numeric chemical criteria when applied to the same use classifications. Mixing zones may be applied to toxic substance criteria subject to the limitations set forth in Section 060 and set out below. (3-25-16)

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d. Application of toxics criteria. (3-25-16)

i. Frequency and duration for aquatic life toxics criteria. CMC column criteria in Table 1 in Subsection 210.01 are concentrations not to be exceeded for a one-hour average more than once in three (3) years unless otherwise specified. CCC column criteria in Table 1 in Subsection 210.01 are concentrations not to be exceeded for a four-day average more than once in three (3) years unless otherwise specified. (3-28-18)

ii. Frequency and duration for human health toxics criteria. Criteria in Table 2 in Subsection 210.01 are not to be exceeded based on an annual harmonic mean. (3-28-18)

Effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved.

ii. Frequency and duration for human health toxics criteria. Criteria in Table 2 ~~in~~, Subsection 210.01, are not to be exceeded based on an annual ~~harmonic~~-arithmetic mean concentration. (3-28-18)

Not effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved.

e. Application of the fish tissue element of the arsenic criterion for human health.

i. The fish tissue element for inorganic arsenic is based on a single measurement using sufficiently sensitive methods.

ii. The single measurement must be made on a sample that is an average or composite of a minimum of five (5) individual fish of the same species, collected from the same water body and within the same calendar year, where the smallest individual is no less than seventy-five percent (75%) of the total length (size) of the largest individual.

iii. Not to be exceeded; the Department will evaluate all representative fish tissue data to determine compliance with this criterion element.

iv. When translating fish tissue criterion element to a water column value, the translation will be based on the ratio of total recoverable inorganic arsenic in fish muscle or fillet tissue to ambient water column concentration of dissolved inorganic arsenic from at least one paired water column and tissue sample.

v. Fish tissue sample(s) should be representative of gamefish species present at the site.

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05. Development of Toxic Substance Criteria. (4-5-00)

a. Aquatic Life Communities Criteria. Numeric criteria for the protection of aquatic life uses not identified in these rules for toxic substances, may be derived by the Department from the following information: (4-5-00)

i. Site-specific criteria developed pursuant to Section 275; (4-5-00)

ii. Effluent biomonitoring, toxicity testing and whole-effluent toxicity determinations; (4-5-00)

iii. The most recent recommended criteria defined in EPA's ECOTOX database. When using EPA recommended criteria to derive water quality criteria to protect aquatic life uses, the lowest observed effect concentrations (LOECs) shall be considered; or (3-25-16)

iv. Scientific studies including, but not limited to, instream benthic assessment or rapid bioassessment. (4-5-00)

b. Human Health Criteria. (4-5-00)

i. When numeric criteria for the protection of human health are not identified in these rules for toxic substances, quantifiable criteria may be derived by the Department using best available science on toxicity thresholds (i.e. reference dose or cancer slope factor), such as defined in EPA's Integrated Risk Information System (IRIS) or other peer-reviewed source acceptable to the Department. (3-25-16)

ii. When using toxicity thresholds to derive water quality criteria to protect human health, a fish consumption rate representative of the population to be protected, a mean adult body weight, an adult 90th percentile water ingestion rate, a trophic level weighted BAF or BCF, and a hazard quotient of one (1) for non-carcinogens or a cancer risk level of 10^{-5} for carcinogens shall be utilized. (3-25-16)

Effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved.

ii. When using toxicity thresholds to derive water quality criteria to protect human health, a fish consumption rate representative of the population to be protected, a mean adult body weight, an adult 90th percentile water ingestion rate, a trophic level weighted BAF or BCF, and a hazard quotient of one (1) for non-carcinogens or a cancer risk level of 10^{-5} for carcinogens shall be utilized for any compound not listed in Subsection 210.05.b.iii. ~~(3-25-16)~~

Not effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved.

iii. Subsection 210.05.b.ii. does not apply to water quality criteria for arsenic.

Not effective for CWA purposes until the date EPA issues written notification that the revisions in Docket No. 58-0102-1801 have been approved.