**Section 352.412 Conversion Factors for Dissolved and Total Metals**

a) The numeric standards for certain metal parameters in 35 Ill. Adm. Code 302.504 are established as dissolved forms of the substance since the dissolved form more closely relates to the toxicology literature utilized in deriving the standard. However, most discharge monitoring data used in deriving a PEQ will be from a total recoverable analytical method and permit limits if and when established will be set at total recoverable to accommodate the total recoverable analytical method. The Agency will use a conversion factor to determine the amount of total metal corresponding to dissolved metal for each metal with a water quality standard set at dissolved concentration. In the absence of facility specific data the following default conversion factors will be used for both PEQ derivation and establishing WQBELs. The conversion factor represents the portion of the total recoverable metal presumed to be in dissolved form. The conversion values given in the following table are multiplied by the appropriate total recoverable metal concentration to obtain a corresponding dissolved concentration which then may be compared to the acute or chronic standard. A dissolved metal concentration may be divided by the conversion factor to obtain a corresponding total metal value which will generally be the metal form regulated in NPDES permits.

|  |  |  |
| --- | --- | --- |
| Metal | Conversion Factor Acute Standard | Chronic Standard |
|  |  |  |
| Arsenic | 1.000 | 1.000 |
|  |  |  |
| Cadmium | 0.850 | 0.850 |
|  |  |  |
| Chromium (Trivalent) | 0.316 | 0.860 |
|  |  |  |
| Chromium (Hexavalent) | 0.982 | 0.962 |
|  |  |  |
| Copper | 0.960 | 0.960 |
|  |  |  |
| Mercury | 0.850 | 0.850 |
|  |  |  |
| Nickel | 0.998 | 0.997 |
|  |  |  |
| Selenium | 0.922 | 0.922 |
|  |  |  |
| Zinc | 0.978 | 0.986 |

b) A permittee may propose an alternate conversion factor for any particular site specific application. The request must contain sufficient site specific data, or other data that is representative of the site, to identify a representative ratio of the dissolved fraction to the total recoverable fraction of the metal in the receiving water body at the edge of the mixing zone. If a site specific conversion factor is approved, that factor will be used for PEQ derivation and establishment of a WQBEL in lieu of its default counterpart in subsection (a) above.