



# RULE-MAKING ORDER

(RCW 34.05.360)

CR-103 (7/10/97)

Agency: Agriculture

- Permanent Rule
- Emergency Rule
- Expedited Adoption
- Expedited Repeal

(1) Date of adoption: December 30, 1998

(2) Purpose: These rules are enacted to: (1) define new terms necessary to carry out the 1998 amendments to RCW 15.54; (2) list the information which must accompany a registration application; (3) establish the sample preparation and total metals analysis methods which must be used for submitting metals information with a commercial fertilizer registration application; (4) publish a reference table setting forth the Washington standards for metals in pounds per acre per year; (cont.)

(3) Citation of existing rules affected by this order: WAC 16-200 Feeds, Fertilizers & Livestock Remedies

Repealed:

Amended: 16-200-695, 705, 708

Suspended:

(4) Statutory authority for adoption: RCW 15.54

Other Authority:

### PERMANENT RULE ONLY (Including EXPEDITED ADOPTION)

Adopted under notice filed as WSR 98-19-128, 98-23-096 & 99-01-048 on 9/23/98, 11/18/98 & 12/10/98. (date).

Describe any changes other than editing from proposed to adopted version: Based on information received during the public comment period the department added the definition of organic waste-derived material, to match what is already in existing statute and added the appropriate sample preparation method for mercury that is associated with the (cont.)

### EMERGENCY RULE ONLY

Under RCW 34.05.350 the agency for good cause finds:

- (a) That immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.
- (b) That state or federal law or federal rule or a federal deadline for state receipt of federal funds requires immediate adoption of a rule.

Reasons for this finding:

### EXPEDITED REPEAL ONLY

Under Preproposal Statement of Inquiry filed as WSR \_\_\_\_\_ on \_\_\_\_\_ (date)

(5.3) Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?:

- Yes
  - No
- If Yes, explain:

(6) Effective date of rule:

Permanent Rules  
or Expedited Repeal

Emergency Rules

- 31 days after filing
- Other (specify) \_\_\_\_\_ \*
- Immediately
- Later (specify)

\*(If less than 31 days after filing, specific finding in 5.3 under RCW 34.05.380(3) is required)

Name (Type or Print)

James M. Jesernig

Signature

Title  
Director

Date  
December 30, 1998

### CODE REVISER USE ONLY

CODE REVISER'S OFFICE  
STATE OF WASHINGTON  
FILED

3140

99-02-035

Attachment to CR-103 for WSR 98-19-128

**(2) Purpose:** (cont.)

(5) describe how the Department will determine whether a commercial fertilizer meets the Washington standards for metals; and (6) clarify unlawful acts under RCW 15.54. To do so these rules add four new sections to WAC 16-200 and amend three sections of WAC 16-200.

**PERMANENT RULE ONLY (Including EXPEDITED ADOPTION) (Cont.)**

atomic absorption analysis method for mercury listed in WAC 16-200-7062.

**Note: If any category is left blank, it will be calculated as zero.  
No descriptive text.**

Count by whole WAC sections only, from the WAC number through the history note.  
A section may be counted in more than one category.

**The number of sections adopted in order to comply with:**

<b>Federal statute:</b>	New	<u>0</u>	Amended	<u>0</u>	Repealed	<u>0</u>
<b>Federal rules or standards:</b>	New	<u>0</u>	Amended	<u>0</u>	Repealed	<u>0</u>
<b>Recently enacted state statutes:</b>	New	<u>4</u>	Amended	<u>3</u>	Repealed	<u>0</u>

**The number of sections adopted at the request of nongovernmental entity:**

	New	<u>0</u>	Amended	<u>0</u>	Repealed	<u>0</u>
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**The number of sections adopted in the agency's own initiative:**

	New	<u>4</u>	Amended	<u>3</u>	Repealed	<u>0</u>
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**The number of sections adopted in order to clarify, streamline, or reform agency procedures:**

	New	<u>0</u>	Amended	<u>0</u>	Repealed	<u>0</u>
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**The number of sections adopted using:**

<b>Negotiated rule making:</b>	New	<u>0</u>	Amended	<u>0</u>	Repealed	<u>0</u>
<b>Pilot rule making:</b>	New	<u>0</u>	Amended	<u>0</u>	Repealed	<u>0</u>
<b>Other alternative rule making:</b>	New	<u>0</u>	Amended	<u>0</u>	Repealed	<u>0</u>

AMENDATORY SECTION (Amending Order 2066, filed 12/7/90, effective 1/7/91)

**WAC 16-200-695 Definitions.** The definitions set forth in this section shall apply throughout this chapter unless context otherwise requires:

(1) "Organic" means a material containing carbon and one or more elements (other than hydrogen and oxygen) essential for plant growth. When the term "organic" is utilized in the label or labeling of any commercial fertilizer, it shall be qualified as either "synthetic organic" or "natural organic," with the percentage of each specified.

(2) "Natural organic" means a material derived from either plant or animal products containing carbon and one or more elements (other than hydrogen and oxygen) essential for plant growth.

(3) "Synthetic organic" means a material that is manufactured chemically (by synthesis) from its elements and other chemicals, containing carbon and one or more elements (other than hydrogen and oxygen) essential for plant growth.

(4) "Unit" means one percent (by weight) of a ton.

(5) "AOAC" means the association of official analytical chemists.

(6) "Commercial fertilizer" means ~~((any))~~ a substance containing one or more recognized plant nutrients and ~~((which))~~ that is used for its plant nutrient content ~~((and/))~~ or ~~((which))~~ that is designated for use or claimed to have value in promoting plant growth, and shall include limes, gypsum, and manipulated animal and vegetable manures. It ~~((shall))~~ does not include unmanipulated animal and vegetable manures, organic waste-derived material, and other products exempted by the department by rule ~~((s))~~.

(7) "Fertigation" means a method of applying commercial fertilizers with irrigation water to fertilize land or plants.

(8) "Fertilizer component" means a commercial fertilizer ingredient containing one or more recognized plant nutrients which is incorporated in the commercial fertilizer for its plant nutrient value.

(9) "Maximum acceptable cumulative metals additions to soil" means the amount of total metals that can be added to soil over a forty-five-year period of time without exceeding the Canadian standards which have been adopted in RCW 15.54.800(3) as Washington standards for metals.

(10) "Organic waste-derived material" means grass clippings, leaves, weeds, bark, plantings, prunings, and other vegetative wastes, uncontaminated wood waste from logging and milling operations, food wastes, food processing wastes, and materials derived from these wastes through composting. "Organic waste-derived material" does not include products that include biosolids.

AMENDATORY SECTION (Amending Order 2066, filed 12/7/90, effective 1/7/91)

**WAC 16-200-705 Purpose.** The following sections concerning the protection of ground water, labeling requirements and examination of fertilizer minerals and limes (WAC 16-200-708 through 16-200-742) are established in this chapter under the authority of the Commercial Fertilizer Act, chapter 15.54 RCW.

This chapter also describes the requirements for registration of commercial fertilizers, including the information which must be submitted as part of the registration application, the analysis methods which must be used, the maximum use rates the department will use to

determine whether a commercial fertilizer may be registered, the Washington standards for metals (in pounds per acre per year), and the acts which are unlawful under this chapter.

**NEW SECTION**

**WAC 16-200-7061 What information must I include with my registration application concerning total metals?** (1) You are required to submit the following metals information with your registration application:

- (a) Total concentration of each metal in each commercial fertilizer reported in parts per million (PPM) which is equivalent to milligrams of metal per kilogram of fertilizer (mg/kg), or micrograms per gram;
  - (b) Copy of the laboratory report on total metals analysis;
  - (c) Method of analysis;
  - (d) Method of sample preparation; and
  - (e) Minimum detection limits for each method used.
- (2) The department may request quality assurance and quality control documentation for analytical procedures and/or for the laboratory which performed the analyses.
- (3) The analytical data and maximum application rate will be used to determine if a commercial fertilizer meets or exceeds the Washington standards for metals.

**NEW SECTION**

**WAC 16-200-7062 What method must I use to analyze the total metals contained in my commercial fertilizer?** (1) You must prepare your sample of commercial fertilizer using U.S. Environmental Protection Agency (“EPA”) sample preparation method 3050B (except when preparing a sample for analysis of mercury\*). You must analyze your commercial fertilizer for the total concentration of each of the following nine metals in each commercial fertilizer using one or more of the EPA analysis methods listed in Table 1. All methods are described in EPA's SW-846, Third Edition.

**Table 1. Acceptable Sample Preparation and Analysis Methods for Total Metals**

<b>Metal</b>	<b>Inductively Coupled Plasma (ICP)</b>	<b>Atomic Absorption</b>	<b>Inductively Coupled Plasma Mass Spectroscopy (ICP/MS)</b>
Arsenic (As)	6010, 6010A, 6010B	7060A, 7061A	6020
Cadmium (Cd)	6010, 6010A, 6010B	7131A	6020
Cobalt (Co)	6010, 6010A, 6010B	7201	6020
Lead (Pb)	6010, 6010A, 6010B	7420, 7421	6020
Molybdenum (Mo)	6010, 6010A, 6010B	7480	6020
Nickel (Ni)	6010, 6010A, 6010B	7520, 7521	6020
Selenium (Se)	6010, 6010A, 6010B	7740, 7741A	6020
Zinc (Zn)	6010, 6010A, 6010B	7951	6020
Mercury (Hg)		7470A*, 7471A*	

Sample Preparation	3050B	3050B	3050B

Copies of SW-846 Third Edition and all associated updates are available from: The Government Printing Office, Superintendent of Documents, Washington, DC 20402, (202) 512-1800, and from the Department of Commerce, National Technical Information Center, 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4650 or 800-553-NTIS.

\*Since sample preparation method 3050B cannot provide for an analysis of mercury, when you prepare a sample for analysis of mercury you must use the sample preparation method established for analysis method 7470A when using method 7470A to analyze your sample and the sample preparation method established for analysis method 7471A when using method 7471A to analyze your product.

(2) Other sample preparation and analysis methods for total concentration of each metal in each commercial fertilizer may be used only under the following conditions:

(a) You must submit a request to the department, in writing, detailing the sample preparation and analysis methods, minimum detection limits and quality assurance, quality control documentation and a side-by-side comparison of the analysis results from the alternative method to one of the approved methods' analysis results of the same material; and

(b) The department, after reviewing the request, may approve the sample preparation or analysis method only if the capability of the method meets or exceeds the sensitivity and accuracy of the applicable method listed in the Table 1.

(3) Any commercial fertilizer product registered prior to the enactment of these provisions using any sample preparation or analysis method not authorized by subsection (1) or (2) must be registered in accordance with subsection (1) or (2) in the next annual commercial fertilizer registration cycle.

## NEW SECTION

**WAC 16-200-7063 How will the department determine whether a commercial fertilizer meets Washington standards for metals?** (1) To determine whether a commercial fertilizer meets Washington standards for metals, the department will use the following formula:

$$\frac{\text{Pounds of product applied per acre per year} \times \text{metal content of product (ppm)}}{1,000,000}$$

The number used for pounds of product applied per acre per year will be the maximum application rate allowed by the commercial fertilizer label. If specific label directions for use are not available, the department will use the Washington application rates listed in subsection (2) of this section, divided by four.

(2) Using normal agronomic rates that are representative of soil, crop rotation, and climatic conditions in Washington state, the department developed the following Washington application rates:

<u>Nutrient</u>	<u>4 Yr. Cumulative Total (lbs./acre)</u>
Nitrogen (N)	1600
Phosphorous (as P2O5)	700
Potassium (as K2O)	1600
Boron (B)	12
Calcium (Ca)	800
Chlorine (Cl)	300
Copper (Cu)	10
Iron (Fe)	80
Magnesium (Mg)	400
Manganese (Mn)	40
Molybdenum (Mo)	4
Sulfur (S)	400
Zinc (Zn)	30
Lime (CaCO3 equivalent)	20,000
Gypsum (CaSO4)	16,000

(3) To ensure that the maximum acceptable cumulative metals additions to soil are not exceeded, the department will assume the commercial fertilizer will be applied at the maximum rate as stated on the label or established in this rule.

## NEW SECTION

**WAC 16-200-7064 What are the Washington standards for metals?** (1) The standards for metals in Washington are the maximum acceptable annual metals additions to soils adopted in RCW 15.54.800 and are presented in Table 2. Because the Canadian standards contained in the Canadian Trade Memorandum T-4-93 dated August 1996 are based on long-term (forty-five-year) cumulative metals additions to soils, the maximum acceptable annual metals additions to soils are determined by dividing the Canadian standards by forty-five. The Washington standards are expressed as pounds per acre per year.

**Table 2. Washington Standards For Metals.**

<b>Metals</b>	<b>Lbs./acre/yr.</b>
<b>Arsenic (As)</b>	<b>.297</b>
<b>Cadmium (Cd)</b>	<b>.079</b>
<b>Cobalt (Co)</b>	<b>.594</b>
<b>Mercury (Hg)</b>	<b>.019</b>
<b>Molybdenum (Mo)</b>	<b>.079</b>
<b>Nickel (Ni)</b>	<b>.713</b>
<b>Lead (Pb)</b>	<b>1.981</b>
<b>Selenium (Se)</b>	<b>.055</b>
<b>Zinc (Zn)</b>	<b>7.329</b>

(2) To be registered with the department and distributed in Washington, a commercial fertilizer must not exceed the above standards. Because cobalt (Co), molybdenum (Mo), and zinc (Zn) are also plant nutrients, higher concentrations than those presented in the table may be permitted. Commercial fertilizers which contain cobalt (Co), molybdenum (Mo), and/or zinc (Zn) concentrations may be registered and distributed in Washington if those metals are used as plant nutrients and those metals meet all applicable minimum guarantees and labeling requirements of chapter 15.54 RCW and the rules adopted thereunder.

(3) If a commercial fertilizer contains cobalt (Co), molybdenum (Mo), or zinc (Zn) and any one or more of those metals are not intended to be used as a plant nutrient, then the nonplant nutrient metals must meet the Standards shown in Table 2.

AMENDATORY SECTION (Amending Order 2066, filed 12/7/90, effective 1/7/91)

**WAC 16-200-708 Unlawful acts.** (1) It shall be unlawful for any person to refuse or neglect to comply with the provisions of the applicable sections of chapter 15.54 RCW, the rules adopted thereunder, or any lawful order of the department.

(2) It is unlawful to distribute a commercial fertilizer in Washington that exceeds the standards for nonnutritive substances established in RCW 15.54.800(3). The department will determine if a commercial fertilizer exceeds the standards by using the maximum application rates and by either:

(a) Comparing data submitted by the registrant to the standards established in WAC 16-200-7064; or

(b) Comparing the results of the analysis of an official sample to the standards established in WAC 16-200-7064. Official samples will be analyzed by the methods set forth in these rules.