



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: October 2, 1998

(2) Purpose: To describe the requirements for registration for commercial fertilizers, including the methods to use for analysis for metals and specifying the metals information which must be submitted with the registration application; to describe the methods for determining maximum use rates for plant nutrients; to set the Washington application rates; to express the Washington standards for metals in pounds per acre per year; to describe how the department will determine if a commercial fertilizer meets or exceeds the metals standards; and to describe a violation of the rules.

(3) Citation of existing rules affected by this order:

Repealed:
 Amended: 16-200-695, 16-200-705, 16-200-708
 Suspended:

(4) Statutory authority for adoption: RCW 15.54.325, 15.54.330, 15.54.370, 15.54.800

Other Authority:

PERMANENT RULE ONLY (Including EXPEDITED ADOPTION)

Adopted under notice filed as WSR _____ on _____ (date).
 Describe any changes other than editing from proposed to adopted version:

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: See attached.

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:

Emergency Rules

Permanent Rules
or Expedited Repeal

- 31 days after filing Immediately
 Other (specify) _____* 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. Jesemig

Signature
James M. Jesemig

Title: Director Date: October 2, 1998

CODE REVISER USE ONLY

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TITLE: 8/15

WSR: 98-20-051

Reasons for this finding: The 1998 Legislature passed SSB 6474 which amends RCW 15.54, the commercial fertilizer registration law, and adopts standards for maximum acceptable cumulative metals additions to soil. The purpose of these amendments is to strengthen the state's fertilizer adulteration law to protect the public health and the environment by ensuring that all fertilizers meet standards for allowable metals and allowing the public to know about the contents of fertilizer products. Ch. 36, Sec. 1, Washington Laws, 1997. The new law requires persons who register commercial fertilizers in Washington to disclose the levels of nine metals which may be present in a commercial fertilizer product. The law took effect on June 11, 1998.

Under RCW 15.54, the 1998-1999 annual commercial fertilizer registration period began on July 1, 1998. These emergency rules adopt the methods for total metals analysis and reporting which will enable the fertilizer industry to analyze their products for the nine metals designated by the new law and to report the results for the 1998-1999 registration cycle.

The department finds that these emergency rules are necessary to implement the requirements of SSB 6474 by the date established in that law. The effective date of the new law was June 11, 1998. RCW 15.54 requires registration of commercial fertilizers by July 1 of each year. Since the new law requires registration applications to include information about total metals in each fertilizer product, the commercial fertilizer industry must know, prior to the date of registration, the process for analyzing fertilizer products and submitting registration information. These rules designate this process.

The department issued emergency rules on June 5, 1998 to give the commercial fertilizer industry the necessary information to comply with the new requirements of SSB 6474. These emergency rules renew those earlier emergency rules while the permanent rulemaking process is completed. The department filed the CR-102 for the permanent rules on September 23, 1998. Without the enactment of these emergency rules, the commercial fertilizer industry would be unable to comply with the new requirements of SSB 6474 until the permanent rules are effective.

These emergency rules are also necessary to accomplish SSB 6474's goal of informing the public of the metals content of commercial fertilizer products. The information submitted in the registration process, as ordered by SSB 6474, is the only means of apprising the public of the metals content of commercial fertilizer products. Without these emergency rules, this vital information would not be available for the 1998-1999 registration cycle, and the department could not accomplish one of the purposes of SSB 6474.

Because SSB 6474 links application rates and metals concentrations, these emergency rules also set forth the maximum application rates the department will use to determine whether a commercial fertilizer may be registered. These emergency rules also convert the Canadian standards for metals contained in SSB 6474 into the Washington standards for total metals which are expressed in pounds per acre per year. These application rates and conversions enable the department and the industry to determine if a commercial fertilizer product meets or exceeds the Washington standards for total metals.

The department finds that these emergency rules are necessary to implement SSB 6474 to protect the public health and the environment. These emergency rules establish the mechanisms to determine whether a commercial fertilizer product meets or exceeds the standards established in

SSB 6474 and allow consumers to know the content of the fertilizer products they intend to apply to the environment. These emergency rules also establish the acts which are unlawful under this chapter. Only by adopting these enforcement provisions immediately can the department ensure that all commercial fertilizers distributed in Washington meet the standards established in SSB 6474 and take action as required to regulate those fertilizer products.

The department finds that these emergency rules are necessary for the preservation of the public health, safety and welfare, that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest, and that SSB 6474 requires the immediate adoption of these rules. Without these emergency rules, the department cannot implement the new law for the 1998-1999 commercial fertilizer registration cycle and cannot accomplish the purposes set forth by the 1998 Legislature.

**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:

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

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

New <u>4</u>	Amended <u>3</u>	Repealed
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The number of sections adopted in the agency's own initiative:

New	Amended	Repealed
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The number of sections adopted in order to clarify, streamline, or reform agency procedures:

New	Amended	Repealed
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The number of sections adopted using:

Negotiated rule making:	New	Amended	Repealed
Pilot rule making:	New	Amended	Repealed
Other alternative rule making:	New	Amended	Repealed

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.

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 and 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 methods listed in Table 1. All methods are described in the U. S. Environmental Protection Agency's SW-846, Third Edition.

Table 1. Acceptable Analysis Methods for Metals Contained in SW-846, Third Edition.

Metal	Inductively Coupled Plasma (ICP)	Atomic Absorption	Inductively Coupled Plasma Mass Spectroscopy (ICP/MS)
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	

The sample preparation method for the analyses listed in Table 1 shall be one of the appropriate total recoverable metals determinations methods listed in SW-846, Third Edition, Final Update III, Chapter 3, 3.2 Sample Preparation Methods, December 1996.

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.

(2) Other 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 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.

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 (CaCO ₃ equivalent)	20,000
Gypsum (CaSO ₄)	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.

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

(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.