

CLEARANCES	Initial	Date	Date Received in Council Office:	Agenda date	Assigned to:
Originator: Jim Kaemingk, Mayor of Lynden				12/13/94	Public Services
Division Head:				8/15/95	Health Board
Dept. Head:				9/12/95	Health Board Work Session
Prosecutor:	JG	n/c/k		9/26/95	Health Board Work Session
Purchasing/Budget:					
Executive:					

**SUBJECT:**

Discussion with Birch Bay, Blaine, Lynden, Everson, Nooksack and Sumas (BBBLENS) regarding the Whatcom County Health Department's proposed compost quality regulations

**ATTACHMENTS:**

**SUMMARY STATEMENT:**

*Please complete sections of box as appropriate & explain the item below.*

Related County contract #:	Should Clerk schedule a hearing? NO / / YES / / Requested date:
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BBBLENS requested a meeting with all three members of Whatcom County's Public Services and Solid Waste Committee to discuss their strong concerns in regards to the Whatcom County Health Department's proposed compost quality regulations.

**CLERK'S RECOMMENDED MOTION (for final action):**

Health Board

**COUNCIL ACTION TAKEN:**

- 12/13: Amended, Recommended to Council
- 8/15/95: Health Board Tabled Indefinitely
- 9/12/95: Discussed. Work session to be scheduled 9/26/95
- 9/26/95: Discussed. At the 10/3/95 Council meeting, Council will decide date for public hearing
- 11/14/95: Introduced

1994-601-  
11/28/95: Adopted 7-0, Ord. #95-060. To be revisited in a worksession by 6/30/96

**Related File Numbers:**

**Ordinance or Resolution Number (this item only):**

SPONSORED BY: Consent

PROPOSED BY: Consent

INTRODUCTION DATE: 11/14/95

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ORDINANCE NO. 95-060

AMENDING THE WHATCOM COUNTY HEALTH CODE BY CREATING  
CHAPTER 24.09, COMPOST QUALITY REGULATIONS

WHEREAS, the Whatcom County Council requested the Health Department to draft  
compost regulations, addressing citizen concerns regarding composting; and

WHEREAS, the Health Department has met with the County Council, the Solid  
Waste Advisory Committee, industry representatives, and concerned citizens; and

WHEREAS, the Council finds that adoption of compost regulations would benefit  
the people of Whatcom County;

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that the  
Whatcom County Health Code is amended, creating Chapter 24.09, Compost Regulations,  
as outlined in "Exhibit A".

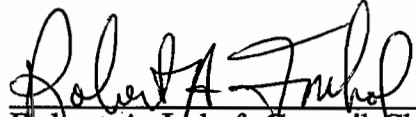
ADOPTED this 28 day of November, 1995.

ATTEST:



Dana Brown-Davis, Clerk of the Council

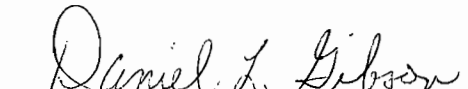

WHATCOM COUNTY COUNCIL  
WHATCOM COUNTY, WASHINGTON



Robert A. Imhof, Council Chair

APPROVED AS TO FORM:

Approved     Denied

  
Civil Deputy Prosecutor  
Shirley Van Zanten, Executive  
Date: 12-1-95

COMMUNITY HEALTH CENTER  
509 Girard Street  
Bellingham, Washington  
FAX (360) 676-7646



WHATCOM HEALTH CENTER  
1500 North State Street  
Bellingham, Washington  
FAX (360) 676-6729

**WHATCOM COUNTY HEALTH DEPARTMENT**

P.O. Box 935  
Bellingham, WA 98227-0935  
(360) 676-6720 (360) 384-1528

**FRANK E. JAMES, M.D.**  
Health Officer

RECEIVED

NOV 7 1995

WHATCOM COUNTY  
COUNCIL

TO: Larry Harris, Chair, Board of Health  
FROM: Frank James, M.D., Health Officer *Frank James*  
DATE: November 6, 1995  
SUBJECT: Revisions to Draft Compost Standards

**DISTRIBUTED TO ALL COUNCIL MEMBERS**

Attached are the revisions to the Draft Compost Standards which were made by the Health Department in response to policy direction set by the Council at the October 24, 1995 work session. For your convenience, language deletions appear as strike outs and language additions are highlighted. We believe we have incorporated the changes as directed by Council discussion and motions. Also attached are copies of the draft suitable for public hearing with no highlighted language additions or strike outs.

Please notify the Health Department when a public hearing date has been set. If you have any questions, please call me at 676-6720.

cc: Shirley Van Zanten, County Executive  
Bob Imhoff, Council Chair

Environmental Health	STD/AIDS Travel Clinic	Communicable Disease Immunizations	Maternal/Infant	Child Health Clinic	WIC Clinic	Communicable Disease Reporting Line
676-6724 384-1565	676-4593 384-5848	738-2508 384-1336	647-2329 384-4017	738-2522 384-0574	738-2505 384-1633	738-2503 384-1633

**DRAFT NOVEMBER 6, 1995**

**CHAPTER 24.09**

**COMPOST QUALITY REGULATION**

**DRAFT**

- 1 Sections:
- 2 24.09.010 Authority and Purpose
- 3 24.09.020 Applicability
- 4 24.09.030 Definitions
- 5 24.09.040 Approval Required
- 6 24.09.050 Registration Required
- 7 24.09.060 Registration Procedures
- 8 24.09.070 Registration Fees
- 9 24.09.080 Application of Standards
- 10 24.09.090 Compost Types By Feedstock
- 11 24.09.100 Compost Classifications and Allowable Contaminant Levels
- 12 24.09.110 Baseline Testing
- 13 24.09.120 Annual Testing
- 14 24.09.130 Additional Testing - ACL Exceedances
- 15 24.09.140 Sampling and Monitoring
- 16 24.09.150 Recordkeeping and Reporting
- 17 24.09.160 Compost Exceeding ACLs
- 18 24.09.170 Inspections
- 19 24.09.180 Penalties and Abatement
- 20 24.09.190 Appeals
- 21 24.09.200 Severability

1 24.09.010 Authority and Purpose.

2 Pursuant to RCW 70.95.160 and WAC 173.304.010, the following regulations are  
3 adopted to establish standards for compost quality in order to avoid unwarranted health  
4 risks and to protect Whatcom County's soils, ground and surface waters from  
5 contamination and pollution.

6 24.09.020 Applicability.

7 These regulations apply to all composted material resulting from composting as  
8 defined in these regulations; the following composted materials are excluded from  
9 regulation:

10 A. Any compost derived solely from materials such but not limited to as wood  
11 wastes; source separated yard and garden wastes; agricultural crop residues; manures  
12 from herbivorous animals; source separated meat-free pre-consumer food wastes or other  
13 source separated specialty wastes or any combination thereof that the Health  
14 Department considers to be relatively low in hazardous substances, human pathogens  
15 and physical contaminants.

16 B. Composted materials produced and utilized solely on the generator's own  
17 property, such as, but not limited to, residential composting of prunings, animal manures,  
18 grass clippings, fruit and vegetable scraps; and

19 C. Farm composting of vegetative waste and animal manures and

20 D. Any compost derived from municipal sewage sludge that is sold or  
21 distributed in pre - packaged bags of 4 cubic feet (113 liters) or less.

1 24.09.030 Definitions.

2 BATCH means a specified quantity of compost that is produced by a facility  
3 during a specified time period that is defined in a Health Department approved sampling  
4 and analysis plan.

5 COMPOST means a product of composting which is used, sold for use or  
6 provided at no charge as a soil amendment, mulch, ground cover, growing medium,  
7 landscaping material, or for some other application to land, which is derived from the  
8 biological or mechanical conversion of organic materials.

9 COMPOSTING means the controlled biological decomposition of organic  
10 materials, substances, or objects.

11 DANGEROUS WASTE means those solid wastes designated in WAC 173-303-  
12 070 through 173-303-103, in Washington's Dangerous Waste Rule, and includes  
13 hazardous wastes regulated under EPA's 40 CFR part 261 rule.

14 DEPARTMENT means the Whatcom County Health Department.

15 FACILITY means all contiguous land (including buffer zones) and structures,  
16 other appurtenances, and improvements on the land used for solid waste handling.

17 HEALTH OFFICER as used in this chapter means the local Health Officer as  
18 that term is used in Chapter RCW 70.05, or the Health Officer's authorized  
19 representative.

20 INDUSTRIAL SOLID WASTES means waste by-products from manufacturing  
21 operations such as scraps, trimmings, packing, and other discarded materials not  
22 otherwise designated as dangerous waste under chapter 173-303 WAC.

1           MANUFACTURED INERTS means wastes such as glass, plastic, metals,  
2 ceramics and other manufactured items that remain unchanged during composting.

3           MUNICIPAL SEWAGE SLUDGE means sewage sludge generated from a  
4 publicly owned treatment works.

5           MUNICIPAL SOLID WASTE (MSW) means mixed, unseparated municipal solid  
6 waste from residential, commercial, institutional, and industrial sources.

7           PATHOGEN means an organism, chiefly a microorganism, including viruses,  
8 bacteria, fungi, and all forms of human or animal parasites and protozoa, which will  
9 produce an infection or disease in a susceptible human host.

10          PERSON as used in this chapter means any natural person, organization,  
11 corporation or partnership and their agents or assigns.

12          POST-CONSUMER FOOD WASTE is food waste which has been handled by  
13 consumers (e.g. plate scrapings from restaurants).

14          PRE-CONSUMER FOOD WASTE is food waste which has not been handled by  
15 consumers (e.g., trimmings from grocery stores, food preparation from bakeries and  
16 restaurants).

17          PRODUCER means any entity which owns and/or operates a composting facility.

18          PUBLIC OR COMMON NUISANCE means that which is set up, maintained or  
19 continued so as to be injurious to the health, or an obstruction to the use of property by  
20 interfering with repose, health, safety or life of any considerable number of persons. For  
21 the purposes of these regulations a public nuisance shall include odors.

22          SEPTAGE means a semisolid consisting of settled sewage solids combined with

1 varying amounts of water and dissolved materials generated from a septic tank system.

2 SEWAGE SLUDGE means a semi-solid substance consisting of settled sewage  
3 solids combined with varying amounts of water and dissolved material generated from  
4 waste water treatment plants.

5 SHARPS means hypodermic needles, sewing needles, and straight pins. Sharps  
6 do not include wood slivers.

7 SOLID WASTES means all putrescible and nonputrescible solid and semisolid  
8 wastes, including but not limited to garbage, rubbish, ashes, industrial wastes, swill,  
9 sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof,  
10 discarded commodities, and recyclable materials. This includes all liquid, solid, and  
11 semisolid materials which are not the primary products of public, private, industrial,  
12 commercial, mining and agricultural operations. Solid waste includes but is not limited  
13 to sludge from wastewater treatment plants and septage from septic tanks, wood waste,  
14 dangerous waste and problem wastes.

15 SOURCE SEPARATION means the separation of different kinds of solid waste  
16 at the place where the waste originates.

17 SOURCE-SEPARATED SPECIALTY WASTES means organic wastes which are  
18 source-separated, consistent, and homogenous in terms of physical and chemical  
19 properties, and which the Health Department considers to be relatively low in hazardous  
20 substances and human pathogens; for example, food waste resulting from food  
21 processing. Waste from pulp and paper processing would not qualify for this category.

1 VECTOR ATTRACTION is the characteristic of compost that attracts rodents,  
2 flies, mosquitos, or other organisms capable of transporting infectious agents.

3 WOOD WASTE means solid waste consisting of wood pieces or particles  
4 generated as a by-product or waste from the manufacturing of wood products, and from  
5 the handling and storage of raw materials, trees and stumps. This includes but is not  
6 limited to untreated manufacturing wood, used wooden pallets and crates, post-consumer  
7 wood wastes, sawdust, chips, shavings, bark, hog fuel, and log sort yard waste, but does  
8 not include wood pieces or particles containing chemical preservatives such as creosote,  
9 pentachlorophenol, or copper-chrome-arsenate. For the purposes of these Regulations,  
10 no treated, coated, or painted wood of any kind should be considered wood waste.

11 YARD DEBRIS means vegetative matter resulting from landscaping maintenance  
12 or land clearing operations and includes materials such as tree and shrub trimmings,  
13 grass clippings, weeds, trees and tree stumps.

14 24.09.040 Approval Required.

15 Except as provided in Section 24.09.020, no regulated composted material may be  
16 sold, distributed or used in Whatcom County before it is inspected and approved by the  
17 Whatcom County Health Department ("Department") as provided in Section 24.09.050  
18 hereof.

19 24.09.050 Registration Required.

20 Any producer of regulated compost which makes such compost available for sale

1 or use in Whatcom County shall apply for Compost Registration from the Department .  
2 The Department shall issue or renew such registration if it finds upon inspection and  
3 review of records and testing results that such compost meets the standards of Section  
4 24.09.100 hereof. The Compost Registration will be valid for 1 year except for  
5 registration of a compost derived from municipal sewage sludge. Compost Registration  
6 for compost derived from municipal sewage sludge shall be valid for a term equivalent to  
7 the term of the permit issued to the Treatment Works Treating Domestic Sewage under  
8 40 CFR Part 503 or WAC 173-308. Producers must apply for registration renewal 60  
9 days prior to registration expiration.

10 Registration is not required for compost excluded from regulation in Section  
11 24.09.020, however, a producer of an exempted compost product may voluntarily apply  
12 for Compost Registration from the Department. The Department shall issue or renew  
13 registration if the compost is sampled in accordance with guidelines set by the Health  
14 Department and the compost meets the standards of Section 24.09.100 hereof.

15 24.09.060 Registration Procedures.

16 Any producer selling or making regulated compost available for use in Whatcom  
17 County on the effective date of these regulations must apply for registration within 60  
18 days of the effective date of these regulations. Any producer who files their first  
19 application for registration within 60 days of the effective date of these regulations may  
20 request temporary authority to make compost available for sale during the baseline  
21 testing period. The Department may grant such authority if it is satisfied such

1 authorization will not compromise public health requirements or the environment.

2 A. Any producer first introducing compost into Whatcom County after the  
3 effective date of these regulations must apply for registration and receive approval for  
4 distribution from the Health Department prior to sale or distribution in Whatcom  
5 County.

6 B. Application for Registration shall be on forms provided by the Health  
7 Department. The application will include the following:

- 8 i. A detailed facility description or a Plan of Operation.
- 9 ii. A feedstock description and general description of feedstock  
10 sources.
- 11 iii. Annual compost production quantities.
- 12 iv. Copies of permits from other local health jurisdictions.
- 13 v. A sampling and analysis plan required by Section 24.09.10 of these  
14 regulations.
- 15 vi. Available analytical data on each type of compost product produced.
- 16 vii. Typical product end uses.
- 17 viii. A proposed list of Whatcom County distributors.
- 18 ix. Types of materials used for blending with finished compost product.
- 19 x. Anticipated Compost Grade (Grade AA or Grade A) as described  
20 in Section 24.09.100 of these regulations.

21 C. Except as otherwise provided in this subsection, the requirements for  
22 producers of a compost product derived from municipal sewage sludge composted with

1 Type 1 feedstocks shall not exceed those imposed by the USEPA under 40 CFR Part 503  
2 and applicable Washington State Law.

3 i. A compost derived from municipal sewage sludge composted with Type 1  
4 feedstocks shall be registered by the Department provided that the producer:

5 a) demonstrates appropriate sampling and analysis procedures as required  
6 by 40 CFR 503.8; and

7 b) within 15 days of the date prepared, files with the Department a copy  
8 of all test results, reports, and/or certifications required by state or federal  
9 law or regulation to demonstrate compliance with the following:

10 1. Pollutant limits meeting 40 CFR 503.13(b)(3)

11 2. Class A pathogen reduction in 40 CFR 503.32(a) and

12 3. Vector attraction reduction utilizing one of the methods  
13 described in 40 CFR 503.33(b) (1-8).

14 ii. If municipal sewage sludge is composted with any other feedstock type, the  
15 producer shall, in addition to the foregoing, meet any additional testing and  
16 reporting requirements for that feedstock.

17 D. Compost facilities permitted as solid waste handling facilities by the Whatcom  
18 County Health Department need not apply separately for compost registration.  
19 Registration will be included as part of the solid waste handling facility permitting  
20 process.

21 E. The Health Department will determine Feedstock Type and testing  
22 requirements within 60 days of receipt of a complete compost registration application.

1 F. Once the producer has been notified of Feedstock Type designation and  
2 testing requirements, the producer must initiate baseline testing within 60 days of  
3 notification. If baseline testing is not initiated within 60 days, the registration  
4 application will be considered incomplete and the producer must reapply.

5 G. The compost product will not be registered by the Health Department until  
6 the baseline testing period has been satisfactorily completed in accordance with Section  
7 24.09.110 of these regulations.

8 24.09.070 Registration Fee.

9 The Department may assess and collect an annual fee to cover costs associated  
10 with registration of compost sold or made available for use in Whatcom County.

11 24.09.080 Application of Standards.

12 The Department shall apply standards, without limitation, which shall demonstrate  
13 that the compost: (1) will not "contaminate" as defined in WAC 173-304-100-(16) if  
14 discharged into groundwater; (2) is not a "dangerous waste" as defined by WAC 173-303;  
15 and (3) will not have an adverse impact on public health, on soil, surface water or  
16 groundwater. The Department will adopt testing schedules and protocols as required to  
17 determine the health risk of the compost and to assure such materials meet standards  
18 contained herein.

19 24.09.090 Compost Types By Feedstock.

1           A. For the purposes of determining exemptions, testing parameters and testing  
2 frequency, the Health Department will classify compost based upon feedstock as one of  
3 the following types:

4           **Type 1** Materials such as but not limited to wood wastes; source separated yard  
5 and garden wastes; agricultural crop residues; manures from herbivorous animals;  
6 source separated meat-free pre-consumer food wastes or other source separated  
7 specialty wastes or any combination thereof that the Health Department considers  
8 to be relatively low in hazardous substances, human pathogens and physical  
9 contaminants.

10          **Type 2** Materials such as but not limited to sewage sludge; septage; meat; source  
11 separated pre-consumer food waste which contains meat and source separated  
12 post-consumer food wastes or other similar source separated specialty wastes or  
13 any combination thereof (or in combination with wastes from Type 1) that the  
14 Health Department considers to be relatively low in hazardous substances and  
15 physical contaminants, but are likely to have high levels of human pathogens.

16          **Type 3** Materials such as but not limited to mixed municipal solid wastes; post  
17 collection separated or processed solid wastes; industrial solid wastes; industrial  
18 biological treatment sludges or other similar compostable organic wastes or any  
19 combination thereof (or any combination with Types 1 or 2) that the Health  
20 Department considers to have relatively high levels of hazardous substances,  
21 human pathogens and/or physical contaminants.

22          B. The Health Department may require producers composting feedstock not

1 listed or identified in the three feedstock types to submit specific feedstock testing data  
2 for evaluation. The Health Department may require that feedstocks are tested if it is  
3 suspected that the substances listed in Section 24.09.90 C, are present in the feedstocks.

4 C. The following may not be used as, or added to, a feedstock:

- 5 i. Any regulated hazardous or dangerous wastes as defined under  
6 WAC 173-303.
- 7 ii. Soils contaminated with petroleum.

8 24.09.100 Compost Classifications and Allowable Contaminant Levels.

9 A. These regulations establish two grades of compost (Grade A and Grade AA)  
10 for utilization and distribution in Whatcom County. Allowable Contaminant Levels  
11 (ACLs) for each of these grades are listed in Table 1.

12 B. A compost product will be classified as Grade A or AA provided that all  
13 samples tested in accordance with the requirements of Sections 24.09.110 through  
14 24.09.130 are below the ACL for all parameters for that grade listed in Table 1.

15 C. In addition to meeting the ACLs listed in Table 1, prior to distribution or use,  
16 compost must not have public nuisance potential and must not have vector attraction  
17 potential.

18 D. A compost product which is tested periodically in accordance with Tables 3  
19 and/or 5 will be registered as either Grade A or AA. Grade AA periodically-tested  
20 compost that exceeds the ACLs will be reclassified as Grade A compost in accordance  
21 with Section 24.09.130 C. A compost product that is batch-tested in accordance with

1 Sections 24.09.110 D.ii. and 24.090.120 C.ii. will be classified as A or AA on a batch-by-  
2 batch basis after the Health Department has reviewed the batch testing analytical data  
3 (see Section 24.09.140 F.).

4 E. The distributor of compost products must provide the following information at  
5 the time of wholesale or retail sale or distribution:

6 i. Grade AA compost

7 a) The statement "Whatcom County Grade AA Compost -  
8 meets Grade AA contaminant standards".

9 b) The statement "We recommend that Grade AA Compost be  
10 applied at a rate not to exceed 3 inches per year and 10  
11 applications. Applications to sites greater than 1/2 acre in  
12 size at rates exceeding this recommendation require Health  
13 Department approval." Any equivalent application rate  
14 language may be substituted (eg. lbs/acre), as is appropriate  
15 for the anticipated end use. The units used should reflect the  
16 audience of the intended market. An alternate application  
17 rate may be recommended with Health Department approval  
18 if the producer provides bulk density data to support the  
19 alternate application rate.

20 c) A list of all feedstocks present in percentages or weight per  
21 dry pound, in order of decreasing dry weight.

22 d) The statement "Recommended for use in home gardens and

1 other areas where there is a likelihood of repeated  
2 application."

3 ii. Grade A compost

4 a) The statement "Whatcom County Grade A Compost - meets  
5 Grade A contaminant standards".

6 b) The statement "We recommend that Grade A compost be  
7 applied at a rate not to exceed 3 inches per year and 5  
8 applications. Applications to sites greater than 1/2 acre in  
9 size at rates exceeding this recommendation require Health  
10 Department approval." Any equivalent application rate  
11 language may be substituted, (eg. lbs/acre) as is appropriate  
12 for the anticipated end use. The units used should reflect the  
13 audience of the intended market. An alternate application  
14 rate may be recommended with Health Department approval  
15 if the producer provides bulk density data to support the  
16 alternate application rate.

17 c) A list of all feedstocks present in percentages or weight per  
18 dry pound, in order of decreasing dry weight.

19 d) The statement "Recommended for topsoil blends,  
20 landscaping, ornamental and silvicultural purposes, sod farms,  
21 and similar applications. Not recommended for home gardens  
22 or situations where incidental contact by children could result

1 in direct ingestion through normal hand-to-mouth activities."

2 24.09.110 Baseline Testing.

3 A. The initial year of testing is the baseline testing period which is designed to  
4 establish the variability of the compost product over time and to provide chemical  
5 screening data.

6 B. During the baseline period producers shall test each compost derived from a  
7 specific feedstock or combination of feedstocks for the parameters listed in Table 2  
8 according to the feedstock type designation determined by the Health Department,  
9 except that:

- 10 i. compost derived from sewage sludge which has undergone secondary  
11 treatment shall not be required to test for sharps or % inerts  
12 provided that the sewage sludge has not been co-composted with  
13 MSW or any other feedstock or bulking agent which is likely to  
14 contain sharps or inert material.

15 The Health Department may require additional testing for parameters beyond those  
16 listed in Table 2 for feedstocks that the Health Department determines to be more  
17 complex and/or heterogeneous.

18 C. A minimum of one composite sample per sampling event must be collected  
19 and analyzed. The Health Department may require more than one composite sample  
20 per sampling event to be collected for feedstocks which the Health Department  
21 determines to be more complex and /or heterogeneous or if the compost product

1 exhibits a high degree of variability.

2 D. During the baseline period, producers shall test each compost derived from a  
3 specific feedstock or combination of feedstocks using periodic testing at the frequencies  
4 listed in Table 3 based upon the Type and quantity of each compost produced, except  
5 that:

- 6 i. the testing frequency for a compost derived from sewage sludge  
7 shall be based upon dry metric tons per year of sewage sludge  
8 processed as specified in 40 CFR 503.16 rather than compost  
9 quantity produced, provided that sewage sludge has not been co-  
10 composted with MSW or any other feedstocks or bulking agents  
11 which contain levels of pollutants which exceed levels in the sewage  
12 sludge, or
- 13 ii. producers may petition the Health Department to utilize a baseline  
14 sampling schedule that is based on batch testing, rather than  
15 periodic testing at the frequency detailed in Table 3, provided that  
16 the annual number of samples proposed equals or exceeds the  
17 annual number of samples specified in Table 3, that the compost  
18 sampled meets the stability standards for Reheating, ROM or other  
19 stability test approved by the Health Department, and that the  
20 analytical results from each batch have been reviewed and approved  
21 by the Health Department prior to distribution of each batch of  
22 compost (see Section 24.09.140 F.).

1 The Health Department may increase the sampling frequency during the baseline period  
2 if a compost product exhibits a high degree of variability.

3 E. A producer may petition the Health Department to allow distribution of  
4 compost during the baseline period provided that the following minimum testing,  
5 conducted in accordance with an approved sampling plan, has been completed:

- 6 i. Type 2 compost two sampling events spanning at least two  
7 months
- 8 ii. Type 3 compost six sampling events spanning at least six  
9 months
- 10 iii. Batch testing of any type of compost provided that  
11 analytical results have been reviewed and approved by  
12 the Health Department on each batch prior to  
13 distribution (see Section 24.09.140 F.).

14 If insufficient analytical data exists, if data shows compost to be variable, or the initial  
15 baseline testing reveals that the compost does not meet the Allowable Contaminant  
16 Levels specified in Section 24.09.100 or would compromise public health or the  
17 environment then the Health Department will prohibit distribution during the baseline  
18 period.

19 F. The Health Department may extend the baseline period or may require a new  
20 baseline to be established if significant changes in feedstock, operation, or quantity of  
21 compost produced occur or if data shows that the compost exhibits a high degree of  
22 variability.

1 24.09.120 Annual Testing.

2 A. Each year following baseline, producers shall test each compost derived from  
3 a specific feedstock or combination of feedstocks for the parameters listed in Table 4  
4 according to the feedstock type designation determined by the Health Department,  
5 except that:

- 6 i. compost derived from sewage sludge which has undergone secondary  
7 treatment shall not be required to test for sharps or % inerts  
8 provided that the sewage sludge has not been co-composted with ,  
9 MSW or any other feedstock or bulking agent which is likely to  
10 contain sharps or inert material.
- 11 ii. for parameters that have been detected in compost for  
12 two consecutive years at concentrations no more than  
13 50% of the Grade AA ACLs specified in Table 1,  
14 analysis is no longer required. If the composting  
15 process or feedstocks change, the Department must be  
16 notified and analysis for these parameters may be  
17 reinstated.

18 The Health Department may require additional testing beyond that listed in Table 4 for  
19 feedstocks that the Health Department determines to be more complex and/or  
20 heterogenous or if the Department believes it is warranted after reviewing baseline data.

21 B. A producer may petition the Health Department to waive testing for certain  
22 parameters. The Health Department will grant the waiver if the producer can

1 demonstrate the following:

- 2 i. The parameter has not been detected in the compost at significant  
3 concentrations during the baseline period and
- 4 ii. The parameter is not likely to be of concern based upon feedstock  
5 types and sources.

6 C. Each year, producers shall test each compost derived from a specific feedstock  
7 or combination of feedstocks utilizing periodic testing at the frequencies listed in Table 5  
8 based on the Type and quantity of compost produced, except that:

- 9 i. the testing frequency for a compost derived from sewage sludge  
10 shall be based upon dry metric tons per year of sewage sludge  
11 processed as specified in 40 CFR 503.16 rather than compost  
12 quantity produced, provided that sewage sludge has not been co-  
13 composted with MSW or any other feedstocks or bulking agents  
14 which contain levels of pollutants which exceed levels in the sewage  
15 sludge, or
- 16 ii. producers may petition the Health Department to utilize an annual  
17 sampling schedule that is based on batch testing, rather than  
18 periodic testing at the frequency detailed in Table 5, provided that  
19 the annual number of samples proposed equals or exceeds the  
20 annual number of samples specified in Table 5, that the compost  
21 sampled meets the stability standards for Reheating, ROM or other  
22 stability test approved by the Health Department, and that the

1 analytical results from each batch have been reviewed and approved  
2 by the Health Department prior to distribution of each batch of  
3 compost (see Section 24.09.140 F.).

4 D. A minimum of one composite sample per sampling event must be collected  
5 and analyzed. The Health Department may require more than one composite sample  
6 per sampling event to be collected for feedstocks which the Health Department  
7 determines to be more complex and /or heterogeneous or if the compost product  
8 exhibits a high degree of variability.

9 E. A producer may petition the Health Department to distribute compost prior  
10 to meeting the stability standards for Reheating, ROM or other stability standard  
11 approved by the Health Department if baseline testing has demonstrated that compost  
12 product meeting the stability standards consistently meets the ACLs and distribution  
13 would not cause a public nuisance.

14 F. A producer may petition the Health Department to decrease testing  
15 frequencies if the producer constructs upper confidence limits at the .05 level of  
16 significance and demonstrates that the upper confidence limits fall below the ACLs.  
17 Discrete sampling data must be used to construct the confidence limits.

- 18 i. The sampling frequency will revert to that specified in Table 5 if an  
19 ACL is exceeded by a facility which has been granted a reduced  
20 testing frequency and the provisions of 24.09.130 shall also apply.
- 21 ii. The Health Department may require a facility to reconstruct the  
22 confidence limits if feedstocks or process changes have occurred or

1 if the composite sampling data indicates increased variability.

2 24.09.130 Additional Testing - ACL Exceedances.

3 A. If a sample collected in accordance with Section 24.09.110 or 24.09.120  
4 exceeds an ACL, the producer will resample for the parameter or parameters which  
5 exceeded the ACL to verify the initial sampling result. The number of samples required  
6 during confirmation sampling will be specified by the Health Department. All samples  
7 collected will be composite samples. Prior to resampling the producer may request the  
8 laboratory to re-analyze the initial sample to confirm the result. If the re-analysis  
9 demonstrates that the ACL exceedance was a laboratory error, resampling will not be  
10 required.

11 B. If all samples collected during the confirmation sampling are below the ACL  
12 the producer may continue to distribute the compost. However the Health Department  
13 will require increased sampling frequency for 1 year for the parameter or parameters  
14 which exceeded the ACL.

15 C. If any of the samples collected during the confirmation sampling exceed the  
16 ACL, the Health Department will:

- 17 i. Reclassify the compost as a lower grade if it meets the ACL for the  
18 lower grade, or  
19 ii. Suspend registration of the compost and prohibit distribution until  
20 the producer can demonstrate to the Health Department that the  
21 compost meets the ACLs specified in these regulations.

1           D. The Health Department will re-register a compost if monthly sampling during  
2 a 1 year period for the parameter or parameters of concern demonstrates that the  
3 product consistently meets the ACLs.

4           E. The Health Department may shorten the 1 year sampling period if the  
5 producer can demonstrate with sufficient data that operational changes (i.e. feedstock  
6 change) have resulted in a higher quality compost product which meets the ACLs.

7   24.09.140 Sampling and Monitoring.

8           A. Prior to any sampling and analysis required by Section 24.09.110 through  
9 24.09.130, a producer must submit a sampling and analysis plan to the Health  
10 Department for approval. A revised sampling and analysis plan must be submitted to  
11 the Health Department for review and approval if a producer wishes to change from the  
12 testing frequencies specified in Tables 3 and 5 to batch testing, or vice versa.

13           B. At a minimum, the sampling and analysis plan must contain the following  
14 information:

15           i.       Description of Sampling Procedure:

16                               Sampling Frequency/Schedule

17                               Number of Samples

18                               Sampling Equipment

19                               Location and Depth of Sample Collection

20                                       Include diagram

21                               Procedures for Compositing Samples

1 Equipment Decontamination

2 ii. Sample Management:

3 Field Log

4 Packaging and Labeling

5 Chain of Custody

6 Sample Shipment

7 iii. Laboratory Analysis:

8 Laboratory Certification

9 Analytical Methods Used (including sample preparation)

10 Detection Limits

11 C. All sampling and analysis must be performed in accordance with the approved  
12 sampling and analysis plan.

13 D. Samples must be representative of the product being sampled. If composite  
14 sampling is to be used, each composite sample shall be composed of 7 to 10 aliquots  
15 collected from different locations and depths in the pile(s).

16 E. All sampling and analysis, with the exception of pathogen testing, must be  
17 performed on a compost product which meets the stability standards for Reheating,  
18 Reduction of Organic Matter or other stability test approved by the Health Department  
19 prior to blending with other materials. Stability of unblended compost must be  
20 demonstrated in the following manner:

- 21 i. The producer must perform either the Reheating Test or the  
22 Reduction of Organic Matter test described below and provide these

1 results to the Health Department. The results of these tests must  
2 meet the standards specified in Table 1 of these regulations.

### 3 Reheating Test

4 Re-pile compost into a pile at least six feet in diameter and four feet high.

5 Provide aeration to this pile or mix the pile thoroughly by turning several times  
6 prior to building. Moisture content of the material in this pile must be between  
7 40-60 percent in order for this test to be valid. Three days after the pile has been  
8 formed, the temperature of the compost should be measured at a point about two  
9 feet into the pile. This temperature should be compared to the ambient  
10 temperature and should be no greater than 20 degrees C. (36 degrees F.) above  
11 the ambient temperature.

### 12 Reduction of Organic Matter

13 Using Standard Methods test SM18 2540 E, test the material for the percent  
14 volatile solids (VS) prior to composting and then again after composting is  
15 complete. Careful sampling is critical to the validity of this test. Initial samples  
16 should be taken immediately after feedstock materials are formed into compost  
17 piles, or before feedstock is fed into the composting vessel. Final samples should  
18 be taken before screening to include all particle sizes in the sample. Calculate  
19 the percent reduction of organic matter using % volatile solids (VS) test results  
20 and the following formula, where OM means organic matter (assumed to be equal  
21 to volatile solids), Ash means the weight of residue left after ignition of sample,  
22 "i" means initial, and "f" means final:



1 the pathogen reduction standards.

2 K. Compost may not be diluted with other materials in order to meet the ACLs  
3 or bypass these standards unless the product is returned to the start of the composting  
4 process as defined in the facility plan of operation. After reprocessing, testing must be  
5 repeated in accordance with the applicable requirements of Sections 24.09.110 through  
6 24.09.130. of these regulations.

7 24.09.150 Recordkeeping and Reporting.

8 A. The following records must be maintained by the producer:

- 9 i. Feedstock sources
- 10 ii. Temperature records which demonstrate compliance with the  
11 pathogen reduction standards.
- 12 iii. Field log associated with sampling
- 13 iv. Analytical data required by Sections 24.09.110 through 24.09.130.
- 14 v. Quantities of each type of compost distributed
- 15 vi. Blending and distribution records.

16 B. All analytical data required by Sections 24.09.110 through 24.09.130 must be  
17 submitted to the Health Department by the producer within 15 days of receipt from the  
18 laboratory.

19 24.09.160 Compost Exceeding ACLs

20 A. When it is determined by the Health Department that analytical results

1 and/or compost physical characteristics indicate that a composted material does not  
2 meet the ACLs the Health Department will send notification to the producer that the  
3 compost registration has been reduced to a lower grade, denied or revoked. Notification  
4 procedures will be in accordance with those specified in WCC 24.07.100.

5 B. A producer may reapply for registration by providing information concerning  
6 feedstock or operational changes which have been instituted to improve compost quality  
7 along with analytical data specified in Section 24.09.130 which demonstrates that the  
8 product now meets the ACLs.

9 C. Compost products which do not meet the Grade A ACLs will be considered a  
10 solid waste and may not be used in Whatcom County until such time as regulations for  
11 land application of restricted use compost products are developed. Additionally, until  
12 regulations for land application of restricted use compost are developed, disposal in  
13 Whatcom County of compost products which do not meet the Grade A ACLs shall be  
14 only at permitted solid waste disposal facilities. Such compost may be approved for use  
15 as daily cover at landfills which are constructed in accordance with WAC 173-351.

16 24.09.170 Inspections.

17 A. The producer shall permit the Health Department to enter and inspect the  
18 compost facility at any reasonable time for the purpose of determining compliance with  
19 these regulations. A copy of the inspection report will be provided to the producer.

20 B. The producer shall permit the Health Department to collect verification  
21 samples of compost in accordance with the approved sampling and analysis plan. The

1 producer will be given the opportunity to obtain split samples. Sampling results will be  
2 provided to the producer.

3 24.09.180 Penalties and Abatement.

4 A. Any person who produces, sells, uses, or makes available for use an  
5 unregistered regulated composted material which has not been approved for distribution  
6 in Whatcom County or who applies registered material at rates exceeding those specified  
7 in Section 24.09.100 E. of these regulations without Health Department approval, may be  
8 subject to civil penalties of up to \$10,000 for Type 2 compost and up to \$20,000 for  
9 Type 3 compost, and may, upon finding of a public nuisance created by such application,  
10 be required to abate the same.

11 B. The Whatcom County Health Officer, upon reasonable findings that  
12 composted materials do not meet the standard contained herein and present a health  
13 risk, may seek an injunction to prevent their distribution and use in Whatcom County.

14 24.09.190 Appeals

15 A. Any person aggrieved by an administrative decision made pursuant to these  
16 regulations may file an appeal. Appeals shall be filed and carried out in the manner  
17 described in WCC 24.06.060.

18 24.09.200 Severability.

19 A. Should any section, subsection, paragraph, sentence, clause or phrase of this

1 regulation be declared unconstitutional or invalid for any reason, such decision shall not  
2 affect the validity of the remaining portions of this regulation.

**TABLE 1**  
**ALLOWABLE CONTAMINANT LEVELS (ACLs)**  
**BY COMPOST GRADE (1)**

TESTING PARAMETER	GRADE AA	GRADE A
<b>Physical</b>		
% Manufactured Inerts	< 1%	< 1%
Sharps	None	None
Stability - Reheating	< 20 degrees C above ambient	
Stability - Reduction of Organic Matter	50 - 55 %	50 - 55%
<b>Chemical</b>		
pH	5.5 - 8.0	5.5 - 8.0
Arsenic	20	20
Cadmium	10	39
Chromium	600	1200
Copper	750	1500
Lead	150	300
Mercury	8	17
Molybdenum	9	18
Nickel	210	420
Selenium	18	36
Zinc	1400	2800
Total Petroleum Hydrocarbons (2)	<5, <25, <60	<5, <25, <60
Chlordane	0.3	0.3
Pentachlorophenol	0.5	0.5
PCB's	1.0	1.0
<b>Biological</b>		
40 CFR 503 Class A Standards	see (3)	see (3)

- 1) All values in ppm unless otherwise noted.
- 2) < 5 ppm for gasoline, < 25 ppm for diesel, and < 60 ppm for heavier hydrocarbons.
- 3) One of the three Class A alternatives detailed in 40 CFR Part 503, Subpart D must be met.

**TABLE 2**  
**BASELINE TESTING PARAMETERS BY FEEDSTOCK TYPE**

TESTING PARAMETER	TYPE 2	TYPE 3
<b>Physical</b>		
% Manufactured Inerts	X (1)	X
Sharps	X (1)	X
Stability	X	X
<b>Chemical</b>		
pH	X	X
Ammonia	X	X
Arsenic	X	X
Cadmium	X	X
Chromium	X	X
Copper	X	X
Lead	X	X
Mercury	X	X
Molybdenum	X	X
Nickel	X	X
Nitrate	X	X
Organic Nitrogen	X	X
Selenium	X	X
Zinc	X	X
Total Petroleum Hydrocarbons	see (2)	X
Pentachlorophenol	see (3)	X
Chlorinated Pesticides (SW 846 Method 8080)		X
Organophosphorus Pesticides (SW 846 Method 8141)		X
Chlorophenoxy Herbicides (SW 846 Method 8150)		X
PCB's (SW 846 Method 8080)		X
Volatile Organics (SW 846 Method 8240)		X
Semivolatile Organics (SW 846 Method 8270)		X
Total Organic Carbon	X	X
<b>Biological</b>		
40 CFR 503 Class A Standards (4)	X	X

1) Required only as specified in Section 24.09.110 B.i.

2) Required only if soil that is likely to be contaminated with petroleum hydrocarbons is incorporated as a feedstock or is mixed with a finished compost product.

3) Required if feedstock includes lumber or other potential sources of treated wood.

4) Fecal coliform must be conducted according to the Dept. of Ecology Guidelines, as amended.

**TABLE 3**  
**BASELINE TESTING FREQUENCY BY FEEDSTOCK TYPE AND SIZE**

QUANTITY PRODUCED (MTPY, dry)	TYPE 2 (1)	TYPE 3
0 - 290	Semiannually	Bimonthly
290 - 1,500	Quarterly	Bimonthly
1,500 - 15,000	Bimonthly	Monthly
> 15,000	Monthly	Monthly

1) An exception to this frequency schedule is discussed in Section 24.09.110 D.i.

**TABLE 4**  
**ANNUAL TESTING PARAMETERS BY FEEDSTOCK TYPE**

TESTING PARAMETER	TYPE 2	TYPE 3
<b>Physical</b>		
% Manufactured Inerts	X (1)	X
Sharps	X (1)	X
Stability	X	X
<b>Chemical</b>		
pH	X	X
Ammonia	X	X
Arsenic	X	X
Cadmium	X	X
Chromium	X	X
Copper	X	X
Lead	X	X
Mercury	X	X
Molybdenum	X	X
Nickel	X	X
Nitrate	X	X
Organic Nitrogen	X	X
Selenium	X	X
Zinc	X	X
Total Petroleum Hydrocarbons	X (2)	X
Pentachlorophenol	X (3)	X
Chlorinated Pesticides (SW 846 Method 8080)		X
Organophosphorus Pesticides (SW 846 Method 8141)		X
Chlorophenoxy Herbicides (SW 846 Method 8150)		X
PCB's (SW 846 Method 8080)		X
Volatile Organics (SW 846 Method 8240)		X
Semivolatile Organics (SW 846 Method 8270)		X
Total Organic Carbon	X	X
<b>Biological</b>		
40 CFR 503 Class A Standards (4)	X	X

1) Required only as specified in Section 24.09.120 A.i.

2) Required only if soil that is likely to be contaminated with petroleum hydrocarbons is incorporated as a feedstock or is mixed with a finished compost product.

3) Required only if feedstock includes lumber or other potential sources of treated wood.

4) Fecal coliform must be conducted according to the Dept. of Ecology Guidelines, as amended.

**TABLE 5**  
**ANNUAL TESTING FREQUENCY BY FEEDSTOCK TYPE AND SIZE**

QUANTITY PRODUCED (MTPY, dry)	TYPE 2 (1)	TYPE 3
0 - 290	Yearly	Bimonthly
290 - 1,500	Quarterly	Bimonthly
1,500 - 15,000	Bimonthly	Monthly
> 15,000	Monthly	Monthly

1) An exception to this frequency schedule is discussed in Section 24.09.120 C.i.