



Concise Explanatory Statement (CES)

This Concise Explanatory Statement (CES) provides information on the Yakima Regional Clean Air Agency (YRCAA) policy adoption for:

Title: Pilot Project for the Air Quality Management Policy and Best Management Practices for Dairy Operations
Adopted date: February 10, 2011
Effective date: February 10, 2011

This CES provides:

1. A description of the policy;
2. Reasons for adopting the policy;
3. A description of any differences between the draft policy and the adopted policy; and
4. Public comments with the Agency responses to comments.

Description of the Policy

The policy is a pilot project to address fugitive air emissions as contemplated in RCW 34.05.313, which states in part:

“During the development of a rule or after its adoption, an agency may develop methods for measuring or testing the feasibility of complying with or administering the rule and for identifying simple, efficient, and economical alternatives for achieving the goal of the rule. A pilot project shall include public notice, participation by volunteers who are or will be subject to the rule, a high level of involvement from agency management, reasonable completion dates, and a process by which one or more parties may withdraw from the process or the process may be terminated.” The pilot project is expected to begin February 10, 2011 and be complete December 31, 2011. At the completion of the pilot project, YRCAA and the workgroup established to participate in the development of the policy shall:

1. Conduct an effectiveness assessment;
2. Determine the need for modification of the policy;
3. Accomplish needed modifications; and
4. Propose a final policy for adoption to the YRCAA Board of Directors.

Reasons for Adopting the Policy

There are many Dairy Operations in Yakima County which the YRCAA has recognized as significant air pollution sources. YRCAA's primary air quality concern regarding Dairy Operations is the generation of fugitive air emissions from feed, urine, manure and other sources.

In recent years, most dairy operators have instituted various practices to control fugitive air emissions. Such practices are also good animal husbandry and good neighbor practices. Air quality management practices can require a significant commitment of time and resources by owners and operators.

Since air emissions from Dairy Operations are considered to be fugitive emissions (cannot feasibly be collected and passed through a control device), mitigation must be accomplished by prevention rather than control. This policy is intended to use existing regulations and clarify what constitutes "reasonable precautions" to minimize air emissions from Dairy Operations. The primary means to accomplish this is to identify pollutant-specific and system-specific best management practices (BMPs) for minimizing emissions and to cause these practices to be implemented according to flexible, site-specific Air Quality Management Plans.

This policy applies only to commercial Dairy Operations where cows are raised, kept and milked and the potential for significant emissions of air pollutants exists. 100% of the air emissions from dairy operations cannot be eliminated. This policy and all BMPs contained in this policy need to be tested, proven to be effective in mitigating air emissions, and found to be economically and technically feasible.

Description of Differences between the Draft Policy and the Adopted Policy

Revisions to the draft Policy submitted for public comment are summarized. Revisions were made due to public comments received, either individually or as consensus of various comments as determined by staff.

Cover Page

The text of the cover page was revised to indicate the pilot project beginning and ending dates.

Background

The text was revised to:

- Delete irrelevant information;
- Replace certain information with more accurate information;
- Provide a description of the policy;
- State reasons for the policy; and
- Address jurisdiction.

Policy

I. What is the Purpose of the Policy?

Minor changes for clarity purposes were made.

II. Who Must Comply with the Policy?

Minor changes for clarity purposes were made.

III. How Does the Policy Work?

Minor changes for clarity purposes were made such as, determinations by YRCAA and the work group role in case of disputes.

IV. Where and When Must Air Quality Management Plans Be Submitted?

Minor changes for clarity purposes were made.

V. What Must Be Contained in an Air Quality Management Plan (AQMP)?

Minor changes for clarity purposes were made.

VI. How are AQMPs Developed and Approved?

Minor changes:

- Added a statement regarding technical assistance from YRCAA or a technical service provider; and

- Added a statement regarding potential compliance actions only for violations of regulation, not policy.

VII. How and What Changes Can be Made to an Approved AQMP?

Minor changes for clarity purposes were made.

VIII. How Will YRCAA Determine When an AQMP is Adequate?

No changes.

IX. How Will Compliance with and Effectiveness of the AQMP be Determined?

Minor changes to further describe:

- How compliance and effectiveness determinations will be made; and
- For what violations compliance actions may be taken.

Appendix A

Minor change for clarity was made.

Appendix B

Changes were made to:

- Remove references to Appendices D and E;
- Better describe pollutant emissions;
- Better state BMPs; and
- 8 BMPs were removed due to lack of scientific evidence of efficacy.

Appendix C

Changes were made to:

- Remove references to Appendices D and E;
- Better state BMPs; and
- Remove BMPs as in Appendix B.

Description of comments and responses

The Concise Explanatory Statement responds to the identified comments in a Comment-Response sequence. Agency responses are given only for comments regarding the policy content or the policy development process.

The table below lists the names of organizations or individuals who submitted a comment on the policy proposal and where you can find YRCAA’s response to the comment(s).

The first column defines the Commenter Number

The second column identifies the Commenter and Organization, if applicable

The third column assigns a comment/response number:

- The letter **A** refers to comments regarding the **Policy Content**
- The letter **B** refers to comments regarding the **Policy Development Process**,
- The letter **C** refers to comments regarding **Other Topics**
- The Accompanying Numbers (1-23) show the order in which the comments appear.

The format would be:

Commenter Number, Comment Type, Comment Number

Commenter Number	Name and Affiliation	Comment/Response #(s)
1	Nichole M. Embertson, PhD	Note: All comments on point; so numerous, comments will be presented below as submitted, numbered below as submitted and attached to Policy Draft

		Document
2	Mark Tudor	C1
3	Jan Whitefoot Concerned Citizens of the Yakama Reservation Friends of Toppenish Creek	B1, B2, C1, B3, B4, C2, C3, C4, B5, A1
4	Jean Mendoza Community Contribution	C1, A1, C2, A2, A3, A4, C3, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A28.a, A28.b, A28.c, A28.d, A29, A30, A31, C4, C5, C6, C7, C8, C9, C10, C11
5	Don Lewis	A1
6	Colleen Reimer	A1, A2, C1, A3, B1
7	Pius Mwangi Ndegwa, PhD	A1, A2, A3
8	Jerald Gefre	B1, B2, B3, C1, B4
9	James & Linda Dyjak	A1, C1.a, C1.b, C1.c, C1.d, A2, A3, C2.a, C2.b, C2.c, A4.a, A4.b, B1
10	Karen Pilon	C1
11	John Bosma	A1, A2, A3
12	Laurie L. Porter Grad Student, Researching Dairy Operations in the Yakima Valley	C1, A1, A2.a, A2.b, A3, A4, A5, A6, B1, B2, C2.a, C2.b, C2.c, C2.d, C2.e, B3, C3, C4, C5.a, C5.b, C6, C7, C8
13	Charles M. Tebbutt, P.C C.A.R.E.	C1, A1, A2.a, A2.b, A3, A4, A5, A6, B1, B2, C2, C2.a, C2.b, C2.c, C2.d, C2.e, B3, C3, C4, C5.a, C5.b, C6, C7, C8
14	Jim Leier	C1, B1, B2
15	Yakama Nation Dept. of Natural Resources	A1, A1.a, A2, A3, A4, A5, A6, A7, A8, A9, A9.a, A9.b, A9.c
16	Larry G Fendell	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, B1, C13, C14
17	Eleanor Hungate	C1, C2, C3, A1, A2, A3, A4
18	D'Ann L Williams, DrPH Meghan F Davis, DVM, MPH Ana M Rule, PhD Keeve E Nachman, PhD, MHS	A1, A2, A2.a, A2.b, A2.c, A2.d, A3, A4, A5, A6, B1, A7, A7.a, A7.b, A8, A8.a, A8.b, A9-A24
19	John L Cox	C1, A1, C2, B1, A2
20	Steven Rowe Northwest Dairy Assoc.	A1, A1.a, A1.b, A1.c, A1.d, A2, A2.a, A2.b, A2.c, A3, A3.a, A3.b, A4, A5, A5.a, A5.b, A5.c, A5.d, A5.e, A6, A6.a, A6.b, A6.c
21	Fred & Ruth St. Hilaire	B1, B2.a, B2.b, C1, C2, B3, C3
22	Helen Reddout C.A.R.E.	B1, B2, C1, B3, B4, C2
Commenter Number	Name and Affiliation	Comment/Response #(s)
23	William J Weida Socially Responsible Agricultural Project	A1, A2, A3, C1, C2, A4, A4.a, A4.b, A4.c, A4.d, A4.e, A4.f, A4.g, C3
END OF COMMENTS RECEIVED		

YRCAA accepted comments between November 8, 2010 and 5 p.m. December 09, 2010. The following section provides verbatim comments that were received during the public comment period. No grammar or spelling corrections have been attempted. Agency responses can be found immediately following each comment.

Commenter #1
Comments #NME1 – NME32

BACKGROUND

Most dairy farms are diversified crop and animal production systems. Some feeds are purchased, but dairy producers usually grow their own forages (whole plant feeds such as hay or silage). Most dairy farmers sell their bull calves and many raise heifers as replacement animals. The advantage of raising heifers on farm is that it helps prevent introduction of diseases when animals are introduced to the milking herd. In a typical herd, mature cows calve every 12 to 14 months, producing a female calf 50 percent of the time. Milk production increases for about 10 weeks and then decreases for the remainder of lactation. Typically, the lactation period lasts about 10 to 12 months. Cows are bred artificially when behavioral and physiological signs of ovulation occur about 60 to 120 days after calving. Lactation continues until two months prior to the next predicted calving. A typical herd with 100 lactating cows may also include 18 dry cows and 86 growing heifers (Dunlap et al., 2000) for a total inventory of 204 head. Young dairy calves consume casein or soy-based milk replacer until adjusted to grain and eventually forage-based diets as they mature. Lactating cattle in peak production consume diets with as much as 60 percent of dry material from grains and high-energy by-products and 40 percent from forages (whole plant crops such as hay or silage). Lactating cattle at lower levels of production and mature cattle between lactations consume diets comprised mostly of forages.

While there are many small dairy operations in Yakima County, the Yakima Regional Clean Air Agency (YRCAA) has recognized Dairy Operations with inventories of over 500 head as significant air pollution sources. There are many Dairy Operations located in Yakima County which are able to support inventories in excess of 500 head. Smaller dairies may also be significant. YRCAA's primary air quality concern regarding Dairy Operations is the generation of fugitive emissions from feed, urine and manure.

YRCAA began working with local beef cattle feedlots in 1993 to minimize dust emissions. As a result, fugitive dust plans were developed and implemented. Since then, the plans, and their effectiveness, have improved each year. YRCAA staff met with owners of heifer replacement and calving operations in March of 2001 to discuss fugitive dust control plans. As a result, a policy was developed to serve as a vehicle for applicable dairy heifer feeding operations to acknowledge requirements and to demonstrate their commitment to continued improvement of effective fugitive dust control. That policy was developed using the same regulated stakeholder and public stakeholder involvement process.

Comment [NME1]: This is a strange definition/review at the beginning of this section, I am not sure what the purpose of it is. It is also a broad generalization of dairy operations. Think about moving it to the end and adding a leading sentence that explains what it is.

Comment [NME2]: Why is this capitalized throughout? No need.

Comment [NME3]: Does that mean that only operation over 500 head are subject to your AQMP? You might want to clarify that here.

Comment [NME4]: Why? Based on what criteria? Give reference...based on the definition listed in RCW 70.94.030'.

Comment [NME5]: You stated in the first sentence this was not the case. Think about making this a "however" statement at the end of the first sentence. For instance: "...recognized dairy operations with inventories of over 500 head as significant air pollution sources, however, smaller operation can still be noteworthy contributors."

Comment [NME6]: Insert as "such as" statement here (aka, list emissions of concern).

In recent years, most operators have instituted various practices to control fugitive emissions. Such practices are also good animal husbandry and good neighbor practices. Air Quality Management measures can require a significant commitment of time and resources by owners and operators.

Since emissions from Dairy Operations are considered to be fugitive emissions, this policy is intended to use existing regulations and clarify what constitutes "reasonable precautions" to minimize emissions from Dairy Operations. The primary mechanism for doing this is to identify pollutant and area-of-operation specific best management practices (BMPs) for minimizing emissions and implement these practices according to flexible, site-specific Air Quality Management Plans developed by each Dairy Operation. Each plan must be submitted along with completed registration forms and must be approved by YRCAA. Annual updates of the plans will be required.

This policy applies only to Dairy Operations where cows are confined for feeding and milking and the potential for significant emissions of air pollutants exists. It is recognized that 100% of the air emissions from dairy operations cannot be eliminated. Additionally, all solutions or practices need to be economically and technically feasible.

Comment [NME7]: I would just caution this statement – we have a very hard time updating plan on an annual basis due to time, funding, and practicality constraints. Before you make this a requirement, consider who will be doing this work, how many plans there will be, and what constitutes an update. You may want to consider changing this to “Annual review” or “annual update determined by review” instead of “update”.

Comment [NME8]: Than the policy doesn't apply to operations that also graze cattle? If so, some of your BMPs and recommendations are not valid. If you do want to include grazing (encouraged), then add that in here.

Comment [NME9]: How is this defined/determined?

POLICY

I. What is the Purpose of the Policy?

The purpose of this policy is to provide guidance for effective prevention and control of fugitive air emissions from Dairy Operations. Components of the purpose are:

1. To achieve sufficient prevention and control of emissions from Dairy Operations to assure compliance with applicable laws and regulations;
2. To achieve prevention and control of emissions by describing a menu of operation and pollutant-specific best management practices (BMPs) for Dairy Operations that will be implemented through the use of flexible, site-specific Air Quality Management Plans;
3. To clarify what constitutes "reasonable precautions to prevent" emissions as required by WAC 173-400-040(3); and
4. To inform owners and operators on effective prevention and control of emissions and provide a means by which Dairy Operations can demonstrate that they are taking reasonable precautions to protect the air quality in Yakima County.

II. Who Must Comply with the Policy?

1. All Dairy Operations where animals are confined for feeding and milking and the potential for significant emissions of air pollutants exists; and All commercial dairies will be considered as potentially significant sources of air pollution for purposes of gathering initial information and determining emissions. It may be that some dairies will only report every three years. Most will report annually.

III. How Does the Policy Work?

1. A Dairy Operation must prepare an Air Quality Management Plan (AQMP) and submit it to YRCAA for approval, along with completed annual registration forms, and pay a fee;
2. A plan must identify best management practices (BMPs) and operational procedures to be used to control emissions of various pollutants from each area of operation;
3. YRCAA and the dairy operators are expected to work together in good faith toward development of an AQMP which is acceptable to both the Operation and the YRCAA;
4. A Dairy Operation must fully implement an approved AQMP according to the criteria and/or implementation schedules outlined in their plans;
5. A Dairy Operation may make modifications to an approved AQMP as long as the effectiveness of the plan is not diminished; and
6. YRCAA may initiate negotiations with a Dairy Operation to modify an approved plan, if that plan is not sufficiently effective in minimizing fugitive emissions.

Should a dispute arise as to compliance with this policy, YRCAA may request the dairy workgroup that developed this policy to review the dispute and provide input as to an acceptable outcome.

IV. Where and When Must an AQMP be Submitted?

Comment [NME10]: Is this regardless of size? If so, you should state this, as your introductory statement might make someone think that only operations larger than 500 cows would need to apply.

Comment [NME11]: Only commercial? What about non-commercial dairies? You may want to define your word for commercial, or take it out.

Comment [NME12]: While this is an important statement, it doesn't warrant a number in this section based on the title "Who must comply". Consider wrapping it into the previous number.

Comment [NME13]: While I like the flexibility and voluntary nature of this idea, I foresee that you will run into a lot of issues if the dairy operator is supposed to prepare their AQMP themselves. A lack of knowledge, understanding, honesty, and/or assistance may inhibit their ability to properly fill out the AQMP you have designed. If your goal is simply to accumulate a list or survey of what BMPs are currently in place, then this is okay. If your goal is to optimize current BMPs and/or have producers install new ones, you are going to have some difficulty. You may want to provide a technical assistance source (YRCAA?), state they can solicit professional help, or be sure that these documents fulfill all criteria that can be later regulated by the appropriate organization (if that is your goal).

Comment [NME14]: List those areas here.

1. Dairy Operations must submit plans to the YRCAA;
2. Existing Dairy Operations must submit plans annually, no later than February 15th; and
3. New or expanding Dairy Operations must file notice with YRCAA, which includes an Air Quality Management Plan for the new facility or addition. This plan must be approved prior to operating the facility.

Comment [NME15]: Can you do this legally? I worry this may cause some issues. Dairies typically only file with WSDA or contact their CD (if expanding). I can understand the need for this information as it directly relates to submission of an AQMP, but not for general purposes.

V. What Must Be Contained in an AQMP?

1. A description of the operation, including:
 - a. A map, aerial photo or drawing of the operation, which adequately represents the layout of the operation and provides enough detail to allow YRCAA to adequately review the feasibility and appropriateness of various BMPs for the facility;
 - b. A description of the operational capacity of the operation, including the maximum number of cattle which could be confined;
 - c. A description of the lands where nutrient byproducts from the operation are applied and the application method(s) used ;
 - d. Any site-specific features or characteristics which would prevent or limit the use of any BMP; and
 - e. Any site-specific features or characteristics which would require BMP flexibility or adaptation to meet the needs of the operation.

2. Pollutants and pollutant groups to be addressed under the plan.

Of the following eight pollutants and pollutant groups, those targeted for emission reduction must be identified in the AQMP:

- a. Direct Particulate Matter;
 - b. Ammonia (NH₃);
 - c. Volatile Organic Compounds (VOCs);
 - d. Oxides of Nitrogen (NO_x);
 - e. Hydrogen Sulfide (H₂S);
 - f. Odor;
 - g. Methane (CH₄); and
 - h. Nitrous Oxide (N₂O).
3. A description of BMPs to be used under the Plan to reduce emissions of the targeted pollutants.
 - a. The description must include which BMPs will be applied for emission reductions

Comment [NME16]: What is "direct particulate matter"? Do you mean PM10? Course PM? Dust?

from the following physical areas:

- i. milking parlors;
- ii. sorting alleys;
- iii. feed alleys;
- iv. dry lots and free stalls;
- v. lands where nutrients are applied;
- vi. storage lagoons;
- vii. compost areas;
- viii. feed storage areas;
- ix. unpaved roadways; and
- x. any other area or process where emissions may occur.

b. The description must include which BMPs will be applied for emission reductions from the following systems:

- i. nutrition and feeding;
- ii. housing;
- iii. manure management;
- iv. land application (both fertilizer and manure application); and
- v. pasture

c. The descriptions must also include:

- i. a description of the equipment and materials to be used, including a description of the normal operational capacity or application rate of any equipment;
- ii. an operational plan for implementation and operation of each BMP;

The operational plan must describe the criteria the operation will use to determine when and for which areas of the operation to implement each BMP and the criteria for selecting specific BMPs. It is recognized that operations and conditions are variable and that the same BMP may be implemented differently by individual operations. This variability makes the description of how BMPs will be implemented an especially important component of an operation's AQMP.

- iii. a description of which pollutant or pollutant group will be reduced as a result of implementing each BMP;
 - iv. a method of monitoring and recording the implementation of each BMP; and
 - v. the person responsible at the facility for the Operation's AQMP and its implementation.
4. A schedule for future BMP implementation, if applicable.

If an operation intends to implement additional BMPs in the future, target dates for implementation of each BMP should be included in the AQMP.

VI. How are AQMPs Developed and Approved?

1. An Operation is responsible for preparing an AQMP and submitting the plan or update to YRCAA for approval on or before February 15th. Professional assistance may be

Comment [NME17]: This only applies if you change your definition in the introduction to include pasture systems (pasture is not typically considered a "confined" situation).

Comment [NME18]: Used for what? Land application? Manure handling? Please elaborate.

used in developing and reviewing the plan;

2. Within 30 days, YRCAA staff must review the plan and notify the Operation of plan approval in writing or request additional information or propose alternative practices to approve the plan. Failure of YRCAA to notify the Operation or request additional information shall constitute approval;
3. Operations must respond to agency requests for information or modification of the plan within 30 days;
4. The approval process may include good faith discussion, evaluation, collection of information, and other efforts to resolve differences of opinion about the plan, so long as reasonable progress toward the development and approval of the Operation's AQMP is being made; and
5. If agreement on an Operation's AQMP cannot be reached after thorough good faith evaluation of alternatives and consideration of plan effectiveness, costs, and other pertinent matters, YRCAA may initiate compliance action.

The purpose of good faith negotiation is to share information and resolve differences of opinion regarding an Operation's AQMP. Both the Operation and YRCAA need to be able to exchange information freely and in good faith. Information obtained by YRCAA in the course of negotiation is not obtained for the purpose of any future enforcement activity.

VII. How and What Changes Can be Made to an Approved AQMP?

An Operation may make modifications to an approved AQMP as long as the modification(s) do not pose a potential to diminish the effectiveness of the plan. Substantive modifications to a plan must be documented and YRCAA must be notified of the changes. Substantive modifications include but are not limited to:

1. significant changes in operational procedures;
2. changes in BMP selection; and
3. changes in criteria used to determine BMP implementation.

Non substantive changes are changes which do not have the potential to diminish the effectiveness of an implemented plan. Such changes may be made without notification to YRCAA, but must be included in the next annual AQMP update.

VIII. How Will the YRCAA Determine When an AQMP is Adequate?

In considering whether an AQMP is adequate to achieve the purpose of this policy, YRCAA may consider:

1. whether the plan utilizes BMPs identified in Appendix B of this policy;

Comment [NME19]: I thought all plan review was done by YRCAA? Be more specific if you mean technical review, not final review.

Comment [NME20]: Such as? State what the penalties for not completing and submitting the plan are (if there are any). State what the compliance action is and who will carry it out.

Comment [NME21]: May want to add a line item referring to the discontinuance of an approved BMP.

2. the ability of the proposed BMPs to maintain conditions which adequately minimize emissions;
3. other measures in the plan which may be effective in minimizing emissions, but which are not recognized BMPs;
4. the adequacy of the operational plan, including the criteria used to begin, end, and apply the proposed BMPs;
5. evidence that proposed measures have been effective in similar conditions; and
6. whether the plan addresses all requirements of Section V of this policy.

IX. How Will Compliance and Effectiveness of the AQMP be Determined?

1. Compliance - After an AQMP has been approved, an Operation will be inspected to determine if the BMPs and their operational plans are in effect. If inspection determines that the AQMP is not fully implemented or reasonable precautions are not being taken to prevent emissions, a Notice of Violation may be issued.
2. Effectiveness - After the plan is in place, inspection results may be used to evaluate the effectiveness of the plan in reducing emissions. If inspection indicates that the plan is not effective, YRCAA will request information from the Operation or propose additional or alternative BMPs. As with the development of the initial plan, YRCAA and the Operation will work together in good faith to revise the AQMP to increase its effectiveness.

Comment [NME22]: By whom? YRCAA? WSDA? DOE? EPA? Who carries out the penalty and compliance review?

Comment [NME23]: How will you quantify effectiveness? Is it a visual inspection only or will you take actual measurements of emissions? Giving an inspection plan or idea of how you will measure these things would be good.

APPENDIX A

STATUTORY AND REGULATORY REFERENCE

This Section is intended to provide the regulatory framework for Dairy Operations. Other statutes or regulation may apply, but the references listed below have the most significant bearing on the industry.

A. STATUTORY AUTHORITY

1. The Washington Clean Air Act (the Act), RCW 70.94.011 states that it is public policy to preserve, protect and enhance the air quality for current and future generations and the intent is to protect human health and safety, including the most sensitive members of the population.
2. Dairy Operations are sources of air pollution per RCW 70.94.030 and subject to the provisions of the Act except as exempted in Sections 640.
3. RCW 70.94.141 empowers Local Authorities to:
 - a. Adopt and amend its rules;
 - b. Issue orders and take administrative actions to enforce the Act;
 - c. Require access to information specific to the emission and control of air pollutants;
 - d. Secure necessary scientific and technical services;
 - e. Prepare and develop comprehensive plans to prevent and control air pollution;
 - f. Encourage voluntary cooperation to achieve the purposes of the Act;
 - g. Encourage and conduct studies, investigation and research relating to air pollution causes, effects, prevention, abatement and control; and
 - h. Advise, consult and cooperate with agencies, departments, educational institutions, political subdivisions, industries, other states, inter-local agencies, the United States government, and with interested persons or groups.
4. RCW 70.94.151 authorizes local authorities to:
 - a. Classify air pollution sources; and
 - b. Require registration, reporting and payment of registration fees.
5. RCW 70.94.152 authorizes local authorities to require submittal of application to construct or modify an air pollution source and approve such application prior to construction or modification.
6. RCW 70.94.154 authorizes and describes a Reasonably Available Control Technology (RACT, as defined in 70.94.030(20)) determination.
7. RCW 70.94.380 mandates Local Authorities to have requirements for the control of air emissions that are no less stringent than those of the state.

Comment [NME24]: All dairy operations?, or just those large enough or close enough to neighbors to cause a problem? You may be challenged on this statement.

B. STATE REGULATIONS

Dairy Operations are sources of air pollution and are subject to the provisions of WAC 173-400 and WAC 173-460, which require controls to minimize emissions.

C. LOCAL REGULATIONS

YRCAA Regulation 1, Section 1.03 declares agency policy to be secure and maintain air quality by:

1. Protecting human health and safety;
2. Preventing injury to plant and animal life and property;
3. Fostering comfort and convenience;
4. Promoting economic and social development;
5. Facilitating the enjoyment of natural attractions;
6. Preventing or minimizing the transfer of air pollution to other resources;

7. Ensuring equity and consistency with the Federal Clean Air Act (FCAA) and the Washington Clean Air Act (WCAA);
8. Educating and informing the citizens of Yakima County on air quality matters;
9. Maintaining accurate and current policies, regulations, and rules;
10. Performing administrative actions in a timely and effective manner;
11. Cooperating with the local governments, the Yakama Nation, organizations or citizens on air quality matters;
12. Developing strategies to avoid, reduce or prevent air pollution through innovative solutions, early planning and integration of air pollution control in the work of other agencies and businesses;
13. Preparing guidelines which interpret, implement and enforce regulations; and
14. Providing reasonable business and technical assistance to the community.

Section 1.04 declares that all activities, persons and businesses are subject to Regulation I, unless granted a variance or specifically exempted in the regulation.

Section 1.05 provides for the appointment of an advisory council to advise and consult with the Board.

Section 2.03 adopts and incorporates certain state and federal codes and regulations that may be applicable to dairy operations.

Section 3.00 requires operations and maintenance plans to prevent avoidable emissions.

Section 4.01 requires any source with a significant emission, as defined in Table 4.01-2 to register the source annually with the agency and pay the appropriate registration fee.

Section 5.02 provides for civil penalties to be assessed to any person who violates any of the provisions of YRCAA Regulation 1, the WCAA, any permit, order or condition of approval issued by the agency up to \$12,000 per day per violation.

APPENDIX B – POLLUTANT-SPECIFIC BEST MANAGEMENT PRACTICES

The purpose of this Appendix is to present a list of best management practices (BMPs) as they apply to reducing emissions from specific air pollutants or pollutant groups. BMPs as they apply to specific dairy operation systems are presented in Appendix C. BMP descriptions are presented in Appendix D. Factors to consider in selecting and implementing BMPs are presented in Appendix E.

General Principles

- The principle mechanism by which most BMPs operate is to maintain conditions which prevent emissions of pollutants addressed by the use of the BMPs; and
- Nothing in this policy should be construed to limit the ability of an Operation to be innovative or to use effective management practices that differ from those offered in this policy.

Following is a list of various BMPs for consideration in reducing emissions from each pollutant or pollutant group. The BMPs have not been prioritized for practicality, economic feasibility, ease of use, or efficacy. These are important factors to consider in the successful selection and implementation of BMPs.

I. Ammonia (NH₃)

Ammonia (NH₃) is formed when urea in the urine and the urease enzyme found in feces and manure laden soil are combined together. The two hydrolyze to form NH₃. The reaction is very quick and the peak to volatilization is from 2 to 10 hours. Volatilization of NH₃ depends primarily on four factors: the protein (N) content in the feed, manure management strategies, the pH or the manure or soil, and the meteorology in general (i.e., temperature and wind speed). The lifetime of gaseous NH₃ is about 24 hours, which typically deposits near its source. This deposition can lead to eutrophication of surface water, soil acidification, airborne fertilization, and changes in ecosystems.

It is the objective of an NH₃ BMP to reduce NH₃ emissions and thus, its negative effects. Tradeoffs in NH₃ reductions must be carefully considered. Tradeoffs are actions which reduce emissions of one pollutant, but cause an increase in another pollutant emission. Tradeoffs could result due to things such as changes in pH or a shift to aerobic conditions. Therefore, the most effective method of reducing NH₃ is to target the source itself. In this case, the source is nitrogen (N) input into the dairy systems. BMPs which reduce NH₃ follow.

1. Reduce the amount of dietary protein (N) in the ration to match, rather than exceed, the animal's needs.
2. Practice phase feeding.
3. Increase animal efficiency.
4. Proper ventilate buildings.
5. Use straw bedding in drylot pens.
6. Keep animals from urinating on freestall beds.
7. Scrub exit air from enclosed barns with biofilters.

Comment [NME25]: Reference?

8. Remove manure from freestall barns and drylot pens frequently.
9. Modify alleyway floor surface to prevent the mixing of urine and feces.
10. Provide shade for cattle in drylots.
11. Incorporate wood chips into the surface layer of drylots.
12. Use surface treatments in drylots that bind or inhibit NH_3 such as urease inhibitors.
13. Maximize the removal of solids from waste influent.
14. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
15. Reduce the pH of lagoons and manure piles to below 6.
16. Apply N fertilizer or manure directly to the soil surface or below the surface rather than on top of plant leaf or residue. Do not use broadcast sprinklers for manure application.
17. Inject or incorporate fertilizer or manure into soil as soon as possible after application (up to 48 hrs) or apply fertilizer in a controlled-release or stabilized form.
18. Apply acidic fertilizers with non-precipitating anions (ammonium nitrate or ammonium chloride) to calcareous soils and place 2 to 3 inches deep.
19. Apply manure during cool weather (i.e., in the morning rather than afternoon) and on still rather than windy days whenever possible.
20. Analyze manure and soil prior to application to match application rates with crop requirements and soil type.
21. Stock only the appropriate number of animals on pasture.
22. Irrigate pastures immediately after grazing.

Comment [NME26]: This is a BMP for grazing cattle in pastures.

Comment [NME27]: These two only apply if you are including grazing into your AQMP criteria. Otherwise, delete them.

II. Nitrous Oxide (N_2O)

Emissions of N_2O result from two different biological processes. There is a very small amount of N_2O produced during nitrification (the biological, aerobic process of converting ammonium to nitrate) though this source is relatively insignificant. The primary pathway of N_2O formation is the anaerobic process of denitrification (the conversion of nitrate to N_2 or nitrogen gas), in which N_2O is an obligatory intermediate product. Therefore, many of the emission reduction strategies are associated with minimizing these anaerobic conditions. BMPs which reduce N_2O follow.

1. Do not apply water to dirt pens after sustained dry periods (>30 days).
2. Remove manure from pens at frequent intervals.
3. Use nitrification inhibitors such as DMPP on drylot pens.
4. Manage compost so that the temperature rises above 65° C during the initial stages of composting.
5. Apply nitrogen fertilizer in accordance with agronomic recommendations suggested by soil test results.
6. Place fertilizer or manure as close to plant roots as possible without damaging them.
7. Do not over-irrigate.
8. Avoid furrow irrigation. Use sprinklers or other uniform application system.
9. Use cover crops which prevent buildup of soil mineral N.
10. Manage stocking rates using rotational grazing.
11. Move cattle pastures often for uniform grazing and manage pasture plants to increase yield and nitrogen uptake.
12. Move water, mineral, and shade to distribute cattle evenly over the pasture.
13. Inject manure and/or incorporate immediately (within 48 hrs) after application.

Comment [NME28]: Define.

Comment [NME29]: Only include if you are requiring grazing operation to have an AQMP, otherwise remove.

III. Hydrogen Sulfide (H₂S)

H₂S is produced in anaerobic environments from the microbial reduction of sulfate and/or the decomposition of sulfur-containing organic matter in manure. Most atmospheric H₂S is oxidized to sulfur dioxide (SO₂), which is then either dry deposited or oxidized to aerosol sulfate and removed primarily by wet deposition. The residence time of H₂S and its reaction products is of the order of days. BMPs which reduce H₂S follow.

1. Properly manage and minimize overfeeding sulfur containing feeds in the diet.
2. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
3. Prevent excessive manure pack build up and excess moisture.
4. Keep freestall beds and drylot pen surfaces dry.
5. Remove manure from drylots frequently.
6. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
7. Encourage purple sulfur bacterial formation in anaerobic lagoons with a surface aerator or

circulator.

8. Compost solid manures rather than stockpile.
9. Inject or incorporate manure at application to an appropriate depth when soil moisture is favorable.

IV. Volatile Organic Compounds (VOC)

VOCs vaporize easily at room temperature and include fatty acids, nitrogen heterocycles, sulfides, amines, alcohols, aliphatic aldehydes, ethers, *p*-cresol, mercaptans, hydrocarbons, and halocarbons. The major constituents of dairy VOC emissions that have been identified include organic sulfides, disulfides, C₄ to C₇ aldehydes, trimethylamine, C₄ amines, quinoline, dimethylpyrazine, and C₃ to C₆ organic acids, along with lesser amounts of aromatic compounds and C₄ to C₇ alcohols, ketones, and aliphatic hydrocarbons. Fresh manure and fermentation of feedstuffs have been identified as the primary sources of VOC emissions on dairy farms. BMPs which reduce VOC emissions follow.

1. Properly manage and minimize overfeeding nitrogen in the diet.
2. Properly manage and minimize overfeeding sulfur in the diet.
3. Properly manage (i.e. cover, confine, and reduce leaks in silage bags) ensiled feedstuffs.
4. Store feed in a weatherproof storage structure during the wet season.
5. Remove spilled and unused feed from feeding area on a regular basis.
6. Remove exposed, uneaten feed from bunks within 24 hours of rain events.
7. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
8. Remove manure from barns and drylot pens frequently.
9. Keep freestall beds and drylot pen surfaces dry.
10. Remove manure from barns and drylot surfaces frequently (<12 h).
11. Keep freestall beds stocked with fresh bedding.
12. Use bedding with larger particle sizes in drylots to promote aerobic conditions in fresh excreta.
13. Knockdown and remove fence line manure buildup so that it is never greater than 12 inches in height.
14. Do not store wet manure solids for more than 72 hours. Treat via compost/aeration, digestion, or anaerobic lagoon instead.
15. Separate solids from lagoon influent.
16. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
17. Apply manure on a frequent basis using injection or immediate (w/in 24 h) incorporation of manure.

18. Do not use sprinklers or broadcast surface application.

V. Odor

Odor from dairies is not caused by a single species, but is rather the result of a large number of contributing compounds including NH_3 , VOCs, and H_2S . Hundreds of compounds may contribute to odor from a dairy operation. A further complication is that odor involves a subjective human response. Though research is under way to relate olfactory response to individual odorous gases, odor measurement using human panels appears to be the method of choice now and for some time to come. Since odor can be caused by hundreds of compounds and is subjective in human response, estimates of odor inventories are not currently possible. Odor is a common source of complaints from people living near livestock operations, and it is for local impacts that a reliable method for odor measurement should be pursued. BMPs which reduce odor emissions follow.

1. Properly manage and minimize overfeeding sulfur and nitrogen containing feeds in the diet.
2. Cover odorous feeds such as silage and fermented feedstuffs.
3. Maintain the surface moisture content of drylot pens at or below 26% to minimize odor.
4. Remove manure from barns and pens frequently to reduce build-up.
5. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
6. Compost solid manure.
7. Inject or incorporate manure rather than surface apply with wagon or big gun sprinkler.
8. Use windbreaks to trap or redirect odor.

VI. Particulate Matter (PM)

This policy considers particulate matter as PM_{10} and $\text{PM}_{2.5}$. PM_{10} is commonly defined as airborne particles with aerodynamic equivalent diameters (AEDs) less than $10\ \mu\text{m}$. Similarly, $\text{PM}_{2.5}$ refers to particles with aerodynamic equivalent diameters (AEDs) less than $2.5\ \mu\text{m}$. Dairies can contribute directly to primary PM through several mechanisms, including: animal activity; animal housing fans; air entrainment from soil and manure; and indirectly to secondary PM by emissions of NH_3 , NO_x , and H_2S , which are converted to aerosols through reactions in the atmosphere. Particles produced by gas-to-particle conversion generally are small and fall into the $\text{PM}_{2.5}$ size range. Key variables affecting the emissions of PM_{10} include the amount of mechanical and animal activity on the soil-manure surface, the moisture content of the surface, and the fraction of the surface material in the $0\text{-}10\ \mu\text{m}$ size range.

The diameter of PM is critical to its health and radiative effects. $\text{PM}_{2.5}$ can reach and be deposited in the smallest airways (alveoli) in the lungs, whereas larger particles tend to be deposited in the upper airways of the respiratory tract. Smaller particles are also most effective in attenuating visible radiation, causing regional haze. BMPs which reduce PM emissions follow.

1. Do not mix feeds during windy times.
2. Cover feed stuffs via enclosures, feed bags, and the like.

Comment [NME30]: Many of the BMPs listed are for coarse ($>10\mu\text{m}$) particulates. This is typically referred to as "dust". You may want to list this category for cohesiveness.

3. Maintain proper ventilation in closed buildings.
4. Maintain the surface moisture content of drylot pens at ~26% to minimize dust and odor.
5. Provide shade in pens to distribute manure and increase the soil moisture of the pen.
6. Make sure dirt pens are compact. Remove the top manure layer for drylots.
7. Apply surface mulches to drylots.
8. Keep compost moist to aid in compost process.
9. Store manure in a liquid form, instead of stockpiles.
10. Use windbreaks to trap or redirect particulates.
11. Reduce field traffic.
12. Reduce tillage, use a no-till system.
13. Use cover crops rather than bare/fallow field management.
14. Inject or incorporate manure rather than surface-apply with wagon or big gun sprinkler.
15. Use cross-fencing in drylot pens.

VII. Oxides of Nitrogen (NO_x)

Nitrification in aerobic soils appears to be the dominant agricultural pathway to Nitric Oxide (NO). Direct emissions of NO from dairy manure are believed to be relatively minor, but a fraction of manure nitrogen applied to soils as fertilizer can be emitted as NO.

The fraction of fertilizer nitrogen released as NO depends on the amount and form of nitrogen (reduced or oxidized) applied to soils, the vegetative cover, temperature, soil moisture, and agricultural practices such as tillage. A small fraction of other reduced nitrogen compounds in animal manure can also be converted to NO by microbial action in soils.

NO and nitrogen dioxide (NO₂) are rapidly interconverted in the atmosphere and the sum of all oxidized nitrogen species (except N₂O) in the atmosphere is often referred to as NO_x. The residence time of NO_x is of the order of days in the lower atmosphere, with the principal removal mechanism involving wet and dry deposition. In terms of environmental effects, NO_x is an important (and often limiting) precursor in tropospheric ozone (O₃) production. Furthermore, NO₃⁻ aerosol is a contributor to PM_{2.5}, and nitrogen deposition in the forms of HNO₃ and aerosol NO₃⁻ can have ecological consequences. Following are BMPs which reduce emissions of NO_x.

1. Replace or retrofit internal combustion engines.
2. Utilize alternatives to outdoor burning.

VIII. Methane (CH₄)

Comment [NME31]: While I agree with both of these BMPs, you didn't mention them anywhere in your introduction above. You may want to give a leading introduction to the contribution of combustion processes and burning to NO_x.

CH₄ is produced by microbial degradation of organic matter under anaerobic conditions. The primary source of CH₄ from livestock production is enteric fermentation in ruminant animals. Ruminants (sheep, goats, camels, cattle, and buffalo) have unique, four-chambered stomachs. In one chamber, called the rumen, bacteria break down grasses and other feedstuff and generate CH₄ as one of several byproducts. The production rate of CH₄ is affected by energy intake, which is in turn affected by several factors such as quantity and quality of feed, animal body weight, and age.

CH₄ is also emitted during anaerobic microbial decomposition of manure. The most important factor affecting the amount produced is how the manure is managed, because some types of storage and treatment systems promote an oxygen-depleted (anaerobic) environment. Metabolic processes of methanogens lead to CH₄ production at all stages of manure handling. Liquid systems tend to encourage anaerobic conditions and produce significant quantities of CH₄, while more aerobic solid waste management approaches may produce little or none. Higher temperatures and moist conditions also promote CH₄ production.

Methane is destroyed in the atmosphere by reaction with the hydroxyl (•OH) radical. Because of its long residence time (~8.4 years), CH₄ becomes distributed globally. Methane is a greenhouse gas and contributes to global warming with a potential 23 times that of CO₂. Following are BMPs which reduce emissions of CH₄.

1. Increase the level of starch in the diet.
2. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
3. Remove manure from freestall barns and drylot pens frequently.
4. Do not stockpile manure under anaerobic conditions.
5. Separate solids from lagoon influent.
6. Cover lagoons or allow a natural crust to form on top of the lagoon surface.
7. Scrub exit air from enclosed barns and manure storage facilities with biofilters.
8. Install and properly maintain a methane digester.

APPENDIX C – SYSTEM-SPECIFIC BEST MANAGEMENT PRACTICES

The purpose of this Appendix is to present a list of BMPs as they apply to reducing emissions from specific dairy systems. BMP descriptions are presented in Appendix D. Factors to consider in selecting and implementing BMPs are presented in Appendix E.

I. Nutrition

1. Reduce the Amount of Dietary Protein (N) in the Ration to Match, Rather than Exceed, the Animal's Needs.
2. Increase the Level of Starch in the Diet.
3. Properly Manage and Minimize Overfeeding of Sulfur-containing Feed.
4. Practice Phase-Feeding.
5. Increase Animal Efficiency.

II. Feed Management

1. Properly Manage Ensiled Feedstuffs.
2. Store Feed in a Weatherproof Storage Structure During the Wet Season.
3. Remove Spilled and Unused Feed from Feeding Area.
4. Do Not Mix Feed During Windy Times.

III. Housing – Freestall Barns

1. Ensure Proper Ventilation.
2. Scrub Exit Air from Enclosed Buildings.
3. Properly Manage Bedding by Type and Stocking Rate.
4. Use Large Particle Bedding Material in Drylot Pens.
5. Design Freestalls to Limit Urinating on Bedding Material.
6. Treat Recycled Lagoon Water Used for Flushing.
7. Remove Manure from Barns Frequently.
8. Modify Alleyway Floors to Separate Urine and Feces.

IV. Housing – Drylot Pens

1. Provide Shade for Cattle.
2. Remove Manure Frequently.
3. Use Straw Bedding.
4. Incorporate Wood Chips in Surface Layer.
5. Use Surface Treatments that Bind or Inhibit NH₃.
6. Use Nitrification Inhibitors.
7. Avoid Over-application of Water to Pen Surface After Sustained Dry Periods.
8. Avoid Standing Water.
9. Maintain the Surface Moisture Content at or Below 26%.
10. Knock Down and Remove Fence Line Manure.

V. Grazing Management

1. Stock Appropriate Number of Animals.
2. Use Rotational Grazing.
3. Move Water and Feeding Areas Frequently.
4. Lightly Irrigate Immediately after Grazing.
5. Manage Pasture Plants to Increase Yield and Nitrogen Uptake.
6. Inject Manure into Pasture.

VI. Manure Management

1. Maximize Removal of Solids from the Waste Stream.
2. Cover or Allow Crust on Lagoon.
3. Maintain Covered Lagoons to Prevent Leakage.
4. Scrub Exhaust of Enclosed Waste Containers.
5. Install and Properly Maintain a Methane Digester.
6. Reduce the pH of Lagoons and Manure Piles Below 6.

Comment [NME32]: Again, only include this section if grazing is included in an AQMP.

7. Manage Compost Temperature and Moisture Levels.
8. Prevent Excess Manure Build-up and Moisture.
9. Encourage Purple Sulfur Bacterial Formation in Anaerobic Lagoons.
10. Compost Solid Manure.

VII. Land Application - Fertilizer

1. Apply N Fertilizer Directly to or Below the Surface Rather Than on Top of No-Till Residue.
2. Inject or Incorporate Fertilizer into Soil within 24 Hours of Application.
3. Apply Liquid Urea Instead of Granular Urea.
4. Apply Acidic Fertilizers to Calcareous Soils and Place 2 to 3 Inches Deep.
5. Use Urease Inhibitors.
6. Apply Ammonia Fertilizer Only to Acidic Soils.
7. Apply N Fertilizer According to Agronomic Recommendations Based on Soil Test Results.
8. Place Fertilizer as Close as Possible to (without damaging) Plant Roots.

VIII. Land Application - Manure

1. Analyze Manure and Soil and Match Application Rates to Crop Requirements and Soil Type.
2. Do Not Over-irrigate.
3. Avoid Furrow Irrigation, Switch to Sprinklers or a More Uniform Application System.
4. Utilize Cover Crops.
5. Apply Using Injection or Incorporate within 24 Hours.
6. Apply During Cool Weather and on Still Rather than Windy Days.
7. Dilute with Irrigation or Rain Water.

8. Use Windbreaks to Trap or Redirect Odor and PM.

Response: All comments were regarding policy content. Each comment was evaluated individually and many resulted in changes the original text.

Commenter #2

Comment # 2.C1:

I have lived in the Yakima Valley for 40 plus years and am glad to finally see some attention given to the effects of the large Dairy operations on our clean air and quality of life. I have a 1000 cow dairy ½ mile east of me and 900 FT. East of my Mother's home. When they spray to brown lagoon water I cannot even go out in my yard. We have an office located at my Mothers farm and one cannot open the doors because of the stench and Flies. Even when the brown water is not being sprayed one smells the lagoons constantly. Especially with our consistent westerly winds. The nitrate levels at my Mother's home well have been climbing. The latest MCL is 19.7 well above the 10 MCL threshold.

This is but one example of the effects of the large concentration of Cows in the lower Yakima Valley. All one need to do is drive from Yakima to the lower Valley and you notice the consistent smell that permeates the Lower Valley when you approach Granger. I agree that everyone deserves the right to make a living, but when it negatively effects the quality of many individuals' lives and our drinking water there needs to be checks and balances developed.

It is my hope that serious consideration is given to addressing the many issues that the Large Dairy operations are causing.

No Response

Commenter #3

Comment #3.B1:

Why is there not one public member, or environmental representative or legitimate health representative on the Clean Air task force working with the dangers of Dairy feedlot emissions in Yakima County?

Response: Participants in the YRCAA Dairy Emissions Work Group were chosen by the Air Pollution Control Officer to best accomplish the purpose of the Work Group.

Comment #3.B2:

Why is the Yakama Nation not included on these proceedings?

Response: The Work Group now includes a representative of the Yakama Nation.

Comment #3.C1:

list?

No Response

Comment #3.B3:

How can you say you represent all people when there are no public members represented?

Response: It is because we represent all people that YRCAA is undertaking this effort.

Comment #3.B4:

Why was Tony Veiga invited as a stakeholder?

Response: He represents members of the Washington State Dairy Federation.

Comment #3.C2:

This is an environmental Justice issue.

No Response

Comment #3.C3:

How is it legal or fair to exclude the public with your negotiations on the affects of CAFOs in the Yakima Valley?

No Response

Comment #3.C4:

We do not believe the Yakima Valley Clean Air board is qualified to represent the public.

No Response

Comment #3.B5:

We are formally requesting a Seattle EPA, Environmental Justice representative be allowed to be part of Clean Air Proceedings along with two public representatives.

Response: Such a request should be made by you directly to EPA.

Comment #3.A1:

A public comment period is not sufficient enough.

Response: Although this pilot project is not a rule, the same 30-day comment period is all that is required for rulemaking per RCW 34.05.

Commenter #4

Comment #4.C1

I have read the *Air Quality Management Policy and Best Management Practices for Dairy Operations* several times and am submitting my comments for your consideration.

First and foremost let me propose an analogy. As a practicing Catholic it is heart breaking for me to tithe every Sunday, knowing that much of this money will be spent defending the Church in court and compensating victims of abuse by a handful of wicked priests. I think we have a similar situation here. For my purposes I will use the term *Rogue Dairymen* to describe those farmers who have no sense of human decency, who spray manure into the air during 30 mph winds, who poison birds and drop them onto their neighbors homes, who dispose of diseased calves by dumping them on public lands or the waterways in the dead of night. If it were not for the *Rogue Dairymen* we would, in my opinion, not require these contentious discussions at all.

It appears to me that the dairy industry desires collegial discussions over best practices for air quality management. Those discussions have a place. However, this document, in my mind, is first and foremost a way to protect the public health in a civilized manner. With that in mind policies must be clear, measurable and impose accountability. The intent of the Washington Clean Air Act “is to protect human health and safety, including the most sensitive members of the population.” Highlighting the most sensitive members

of the population really places high expectations on the Yakima Clean Air Authority. Please remember that I have both *Rogue Dairymen* and dying children in mind when my words appear harsh.

No Response

Critique of the Best Management Practices

Comment #4.A1

Is the AQMP any different from the BMP's already in place for dairies in Washington State?

Response: YRCAA is not fully aware of BMPs already in place. Implementation of this policy will discover which BMPs are already in place.

Comment #4.C2

Is there discussion about coordinating inspections conducted by the WSDA and the YRCAA, and if so, what are the implications for public safety?

No Response

Comment #4.A2

It appears that the WSDA has had problems funding their inspection program. How will this be different for the YRCAA?

Response: Dairies will pay a fee adequate to fund YRCAA work.

Comment #4.A3

Air Quality research considers carbon dioxide, nitrous oxides and methane to be the major contributors to greenhouse gasses. Should carbon dioxide be included in the Air Quality Management Policy and Best Management Practices for Dairy Operations?

Response: YRCAA selected only those GHGs with the greatest warming potential, nitrous oxide and methane.

Comment #4.A4

There have been situations in which large herds of cattle have been "depopulated" due to disease. Is there an air quality plan to address pollution if large numbers of animals are incinerated?

Response: State regulations require best available control technology for incineration.

Comment #4.C3

LeBlanc et al,(2006) state, "The high density of cattle within farms, increasing concentration of dairy farms in regional clusters, and the movement of animals at different stages of life and within the production cycle may increase the propagation of infectious disease within and between farms." What is the status of testing for disease on the dairies of the Yakima Valley?

No Response

Comment #4.A5

Is there a focus of BMP's that requires education of dairy workers so that they do not carry infectious diseases to their families and communities?

Response: No, worker safety and public health are addressed by other state agencies.

In Appendix B, Section IV- Volatile Organic Compounds the Best Management Practices are:

Comment #4.A6

1. Properly manage and minimized overfeeding nitrogen in the diet. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4A7

2. Properly manage and minimize overfeeding sulfur in the diet. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A8

3 Properly manage (i.e. cover, confine, and reduce leaks in silage bags) ensiled feedstuffs. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A9

4. Store feed in a weatherproof storage structure during the wet season. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A10

5. Remove spilled and unused feed from feeding area on a regular basis (at least once every 2 weeks). *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A11

6. Remove uneaten feed from bunks within 24 hours of rain events. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A12

7. Scrub exit air from enclosed barns and manure storage facilities with biofilters. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A13

8. Remove manure from barns and drylots frequently. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A14

9. Keep freestall beds and drylot pen surfaces dry. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A15

10 Remove manure from barns and drylot surfaces frequently (<12 H). *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A16

11. Keep freestall beds stocked with fresh bedding. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A17

12. Use bedding with larger particle sizes to promote aerobic conditions in fresh excrets. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A18

13. Knockdown and remove fence line manure buildup so that it is never greater than 12 inches in height. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A19

14. Do not store wet manure solids for more than 72 hours. Treat via compost/aeration, digestion, or anaerobic lagoon instead. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A20

15. Separate solids from lagoon influent. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A21

16. Cover lagoons or allow a natural crust to form on top of the lagoon surface. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A22

17. Apply manure on a frequent basis using injection or immediate (w/in 24H) incorporation of manure. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Comment #4.A23

18. Do not use sprinklers or broadcast surface application. *How will YRCAA assess this practice?*

Response: Actual observation and/or review of recordkeeping.

Enforcement of the Best Management Practices

Comment #4.A24

Section III. 1. "A Dairy Operation must prepare an Air Quality Management Plan and submit it to YRCAA for approval, along with completed annual registration forms, and pay a fee." *The Yakima Clean Air Authority has publicly stated that they lack the expertise to determine whether broadcasting manure into the air during heavy winds is*

dangerous to the public health. How will the YRCAA analyze these documents in order to approve them for effectiveness?

Response: See Section IX.

Comment #4.A25

Section III. 3. “YRCAA and the dairy operators are expected to work together in good faith toward development of an AQMP which is acceptable to both the Operation and the YRCAA” *Can you insert language that addresses the Rogue Dairyman? For example, if a dairyman makes false statements to the YRCAA, how will this be handled?*

Response: No, it is common knowledge that making false or misleading statements to this agency is a violation of state (WAC 173-400-105(7)) and YRCAA (Regulation 1, 1.07.B.1) regulations.

Comment #4.A26

“Should a dispute arise as to compliance with this policy, YRCAA may request the dairy workgroup that developed this policy to review the dispute and provide input as to an acceptable outcome” *I recall discussion at one of the monthly meetings for the YRCAA Board regarding the status of the working group. This statement gives that group a great deal of regulatory and judicial authority. Is that the intent?*

Response: The authority given to the work group is limited to providing input. No decision-making authority is given.

Comment #4.A27

Section VI. 2. “Failure of the YRCAA to notify the Operation or request additional information shall constitute approval.” *It is unfair to keep an operation waiting for approval for an extended period of time. However, thirty days is not very long. Given the YRCAA’s acknowledged lack of expertise in dairy operations, the possibility that a hazardous facility could receive approval by default exists.*

Response: First, YRCAA staff and the Air Pollution Control Officer have a combined experience of over 50 years of dealing with dairy operations. Second, anything is possible, but what you suggest is highly unlikely. YRCAA staff have been doing what we do successfully for over 42 years.

Comment #4.A28

Section VI. 5. “The purpose of good faith negotiation is to share information and resolve differences of opinion regarding an Operator’s AQMP. Both the Operator and YRCAA need to be able to exchange information freely and in good faith. Information obtained by YRCAA in the course of negotiation is not obtained for the purpose of any future enforcement activity.” *This is a compelling but idealistic model. Keeping Rogue Dairyman in mind, can you define Good Faith?*

Response: *Honesty; a sincere intention to deal fairly with others.*

I believe there is precedent in labor law. From my point of view the following constitute a lack of Good Faith:

4.A28.a *Giving false testimony or false statements to the YRCAA or the public*

4.A28.b *Concealing relevant information*

4.A28.c *Intimidation of potential witnesses to hazardous practices*

4.A28.d *Bribery or coercion (These need to be defined)*

Response: YRCAA agrees.

Comment #4.A29

Section IX. 1. “Compliance – After an AQMP has been approved, on Operation will be inspected to determine if the BMPs and their operational plans are in effect.” *Who will conduct the inspections, how often and how will this be funded?* “

Response: YRCAA staff, no less than once per year, funded by fees remitted with the AQMP.

Comment #4.A30

If inspection determines that the AQMP is not fully implemented or reasonable precautions are not being taken to prevent emissions, a Notice of Violation may be issued.” *What happens if the Operation chooses to ignore the Notice of Violation?*

Response: Depending on the specifics of the case, a civil penalty may be issued.

Comment #4.A31

Section IX. 2. “Effectiveness – After the plan is in place, inspection results may be used to evaluate the effectiveness of the plan in reducing emissions. If inspection indicates that the plan is not effective, YRCAA will request information from the Operation or propose additional or alternative BMPs.” *Will this evaluation be done based on analysis of air quality or assessing implementation of BMPs based on paper work or by some other method? It appears that this section needs clarification.*

Response: The evaluation will be accomplished as any of the 325+ other full compliance evaluations conducted by YRCAA annually and will be based on credible evidence.

Hazards to the Public Health

Comment #4.C4

Please let me contribute some information describing zoonotic disease relevant to confined animal feeding operations and most specifically dairy operations. The Dairy Industry acknowledges the following pathogens that may cause infectious diseases on the farm:

- Mycobacterium avium sp. paratuberculosis which causes Johnes disease.
- Salmonella
- E. coli
- Rotavirus
- Coronavirus
- Coccidiosis
- Cryptosporidiosis
- Leptospirosis
- Clostridial Disease
- Mycoplasma which causes tuberculosis
- Contagious mastitis – often a staphylococcus aureus
- Foot & Mouth Disease
- Bovine Viral Diarrhea (BVD)
- Infectious Bovine Rhinotracheitis (IBR)
- Bovine Respiratory Syncytial virus (BRSV)
- Bovine Leukemia Virus (BLV)

- Clostridial Disease

Many of these infections can be passed on to humans.

No Response

Comment #4.C5

Here is some relevant information with source citations.

Bovine Tuberculosis

In January 2008, animal health officials from USDA and the California Department of Food and Agriculture (CDFA) expanded the epidemiological investigation of a large central California dairy herd that was infected with bovine tuberculosis (TB). The disease confirmation was made in December 2007 following whole-herd tuberculin skin testing. The herd, composed of 5,016 dairy cattle, was depopulated.

The ensuing investigation of this index herd resulted in the identification of 3,209 potentially exposed cattle that had moved to 143 other premises or to slaughter before officials knew that the herd was infected. Additional investigations to determine the origin of this herd's infection identified 110 cattle from 56 premises as potential sources for the disease.

Epidemiological investigations conducted on the index herd during 2008 identified two other large dairy herds in California as TB-infected. One of these herds, which contained 1,014 dairy cattle, was depopulated. The other herd, composed of more than 12,000 cattle, is undergoing a test-and-removal program to rid the herd of TB. The resulting investigations of these 2 herds identified at least 14,410 potentially exposed cattle that, between 2003 and 2008, had moved to 354 other premises or to slaughter (whereupon they were subject to inspection by USDA's Food Safety and Inspection Service to ensure food safety). These movements required investigatory activities in 16 U.S. States and Canada.

During calendar year (CY) 2008, USDA and CDFA officials conducted 271 herd tests for TB involving more than 377,000 cattle in California alone in response to this outbreak. Nearly \$20 million in Federal funds was used to purchase known exposed cattle, depopulate infected herds, and cover expenses for personnel assigned to conduct herd testing, epidemiological investigations, and identification.

Epidemiological investigations and further herd test activities continue in 2009.

2008, USDA Animal Health Report

Salmonella

Eleven characteristics of Salmonella and salmonellosis to keep in mind

1. Salmonella infection of a farm is maintained primarily by transmission of the agent from the feces of infected animals to the mouths of susceptible animals.
2. Salmonella infection and subsequent clinical disease (the two are not synonymous) is a result of:
 - 1) The innate resistance of the host animal.
 - 2) The infectious dose received by the animal.

- 3) The infectivity and virulence of the particular strain of the organism.
3. Salmonella infects anything in the livestock environment that has an intestinal tract.
4. The majority of salmonella infections in a herd over time are subclinical; the clinical infections are only the tip of the iceberg, even during outbreaks of clinical disease.
5. Septicemic animals shed the agent in oral and nasal secretions and urine as well as feces. These animals don't necessarily have clinical signs associated with enteric salmonellosis at the time.
6. Salmonella has a complex relationship with its animal host, which is only beginning to be understood.
7. Salmonella are a small part of an extremely competitive, complex, dynamic microbial environment in intestinal tracts and this competition is a very important part in resistance to infection.
8. Salmonella are usually killed by exposure to the volatile fatty acids of fully functioning normal ruminants.
9. Salmonella survives for long periods under environmental conditions common on the livestock farm.
10. Salmonella replicates in moist environments (< 85% dry matter) even with scarce nutrients.
- 11. Salmonella Typhimurium DT104 in livestock is a significant zoonotic disease risk for in-contact people, particularly young children.**

(Washington State University, 2009)

Johne's Prevalence is Up Dramatically!

According to USDA, 22 percent of U.S. dairy herds were infected in 1996 with Mycobacterium paratuberculosis, the cause of Johne's disease. That number jumped to 68 percent in 2007. Among herds with 500+ cows, the number of infected herds is at an alarming 95 percent. Random sourcing for dairy replacements in expanding herds is a major contributor to this significant increase.

Healthy Cows for a Healthy Future in Johne's Disease Newsletter 2010

Infectious Diseases in Humans in Yakima County

Campylobacteriosis

Rates per 100,000 population	2003	2004	2005	2006	2007
Yakima County	53.1	38.7	50.6	87.1	52.7
Washington State	15.5	14	16.7	15.6	15.7

Cryptosporidiosis

Rates per 100,000 population	2003	2004	2005	2006	2007
------------------------------	------	------	------	------	------

Yakima County	< 5 cases	< 5 cases	3.1	2.6	6.4
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Washington State	1.1	1	1.5	1.5	2.1
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Giardiasis

Rate per 100,000	2003	2004	2005	2006	2007
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Yakima County	11.5	12.7	12.2	13.4	20.1
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Washington State	7.1	7.2	7	7.1	9.1
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Salmonellosis (Non-Typhoid)

Cases per 100,000 population	2003	2004	2005	2006	2007
------------------------------	------	------	------	------	------

Yakima County	24.3	15.4	22.7	14.7	14.5
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Washington State	11.5	10.7	10	9.8	11.7
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From the 2007 Washington State Communicable Disease Report

No Response

Economics – Who pays the price?

Comment #4.C6

Do the dairies of the Yakima Valley provide health insurance for workers and their families?

No Response

Comment #4.C7

Tuberculosis and multi-drug resistant tuberculosis are major health concerns. The Mycobacterium organism can live for up to eight weeks in moist feces and is most often an airborne infection. The signs and symptoms of the disease may not emerge until years after exposure. Government, and in our case county government, is mandated to pay for treatment. A single case of multi-drug resistant TB can cost tax payers a million dollars a year.

No Response

Comment #4.C8

Do dairies test workers for various zoonotic diseases?

No Response

Comment #4.C9

If there is an outbreak of contagious disease in a local dairy herd, who is responsible for measures to protect the public health?

No Response

Comment #4.C10

What measures are in place to deal with “depopulation” of thousands of cattle in Yakima County and who pays for these actions?

No Response

Comment #4.C11

Concluding Remarks

I thank everyone who has taken the time to read my contribution to the discussion regarding the *Air Quality Management Policy and Best Management Practices for Dairy Operations* in the Yakima Valley. This work required many hours of research. Please consider this a community contribution to the analysis with scientific weight that equals the work, whether paid or voluntary, that has been contributed from the agricultural sector.

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Washington State Department of Health (2008) *2007 Washington State Communicable Disease Report*. Retrieved from www.doh.wa.gov

No Response

Commenter #5

I am a farmer residing and operating in the western end of Benton County. I spend a great deal of time doing business in and out of the eastern end of Yakima County and, as a result, travel past several 500+ cow dairy operations. It is with significant pleasure that I come to realize you and the YRCAA are trying to address the issue of emissions from these operations. I have repeatedly experienced such overwhelming ureaic emissions along the county road as to cause me concern over whether I was even going to manage to exit the other end of the cloud. In my personal opinion these emissions are often so bad as to present a driving hazard. I would like to point out that these experiences came in direct connection with the sprinkler application of liquid wastes at the dairy sites. Somehow that aeration process or the spraying of that waste through the circulating air and especially during the warmth of Summer exacerbates the already bad situation at hand. These experiences have only served to make me wonder how people living in homes within such emission areas can even tolerate it. Their lives and fortunes have been affected in many instances. In light of a general acceptance of the issue of people suffering from second hand smoke from a cigarette smoker, we definitely face a situation with these dairy emissions of something far more hazardous to the health.

Comment #5.A1

I would leave it to your expertise to address the greater issues but offer this letter as a suggestion that all sprinkler application of liquid wastes be ended as a matter of public health, itself.

Response: YRCAA supports your suggestion and BMPs to that effect are on the list in the policy appendices.

Commenter #6

Comment #6.A1

1. The copy of the draft on Dairy Emissions does not include an enforcement section. Is there such a thing? The entire document reads as to what "should" be done and what "should be" contained in Best Management Practices but I see these statements as ideals rather than "shall be" "must be" and will be enforced and by whom? The Purpose of the Policy section states the policy is to..."provide guidance for effective prevention and control of air contaminant emissions at dairy operations."

ADD "enforcement" after guidance.

Response: During the pilot project phase of the policy-making, enforcement of the policy is not contemplated. However, violation of existing regulations may be addressed by enforcement action.

Comment #6.A2

2. Section V: What must be contained in an AQMP (Air Quality Management Plan). The proposed policy suggests that a description of the area via a map, aerial photo or

drawing is adequate. My suggestion is that the dairy owners/operators must be required to obtain and provide this information by using Geographic Information System software (GIS). This system will provide much more detailed geographical information such as distance to schools, recreation areas, residences, rivers, streams and wells for the dairy operation. It is the absence of this specific information that has allowed dairies to contaminate air and water and therefore dump their raw untested manure wherever there appears to be an open field, particularly on the Yakama Nation Reservation.

Response: YRCAA supports your suggestion.

Comment #6.C1

If the Best Management Practices are to become believable, they must include ALL aspects of the dairy operation which definitely includes the dumping of dead animals and manure. Presently, once the manure is dumped, it is no longer the responsibility of the dairy operator/owner; therefore a Best Management Practice must include origination and destination.

No Response

Comment #6.A3

3. Disputes are to be resolved by the dairy work group that developed this policy? This does not comport with environmental justice practices nor good common sense. The Yakima Regional Clean Air Agency can not be a partner to the dairies and then be counted on for enforcement or resolution of disputes.

Response: The authority given to the work group is limited to providing input. No decision-making authority is given.

Comment #6.B1

4. FINAL COMMENT: The stated VISION of the Yakima Clean Air Organization is "An unceasing commitment to build and maintain partnerships in the continuous improvement of air quality for all [emphasis added]current and future generations in Yakima County." Why was the Public not considered to be part of the partnership building of the group that developed this policy? Elsewhere in your agency's mission it is stated ..."Constituency is made up of private individuals, business and industry and public offices."

The exclusion of the public in the development of this policy is an egregious practice and an absolute violation of your own stated VISION and CONSTITUENCY. This policy development smacks of cronyism and a perpetuation of the "good old boys" network. Permitting a few weeks of public comment does not constitute public input. Furthermore, denying the public participation in the policy development is not a Best Management Practice for a Governmental entity.

Response: Although this pilot project is not a rule, the same 30-day comment period is all that is required for rulemaking per RCW 34.05.

Commenter #7

I have read the policy document and I think you have done a great job. I am sorry I did not realize the process was moving a long this quickly - otherwise, I would have tried to give you some feedback a lot earlier. In any event, I have three main points that I wanted to bring to your attention:

Comment #7.A1

1. Background: You seem to indicate a threshold herd size of 500 cows. I think it is important to include all dairies at this point until we have more information on what size of operations needs to be exempted from regulations. If all the producers did their bit to control emissions, the sum total would be GREAT!

Response: The policy text has been changed to include all dairies.

Comment #7.A2

2. Pollutants to be addressed: In my opinion, this list is too long. If this policy focused on a few pollutants that either regulated (e.g. ammonia and hydrogen sulfide) or that distort citizens perception (e.g. particulate matter and odor), that approach may be more effective. The rest could be incorporated in future in steps depending need. On the other hand, controlling these four pollutants will effectively control emissions of all others.

Response: YRCAA included all pollutants listed as pollutants of concern in the 2003 National Academy of Sciences Report. Dairies may choose to target any or all of the pollutants.

Comment #7.A3

3. How compliance and effectiveness will be determined: This is likely to be problematic because it is SUBJECTIVE! The producers could implement all the BMPs on the list but will not be in a position to demonstrate (or know) how much they have reduced the respective emissions, i.e. will not be sure when they are in compliance or not. In the same breath, the AGENCY will be in a similar dilemma. I am not sure if the workgroup considered the 'point system' introduced in Idaho a few years ago. In this approach, every BMP was assigned 'points' and compliance was reached when the producer had earned a predetermined number of points based on which BMPs were implement on their operation. The workgroup may want to study the Idaho system some more.

Response: A point system is under development and will be tested during the pilot phase of the policy development.

Commenter #8**Comment #8.B1**

Leaving the public out of these proceedings was a travesty!

Response: The public was not left out of these proceedings.

Comment #8.B2

You claim that having the public involved in the Clean Air Task Force proceedings would have somehow interfered with a consensus. What you seem to be saying is that there is a conflict of interest between the CAFO/dairy industry and the public which would slow the proceedings? Hogwash! I thought we lived in a democracy where all entities had an EQUAL say!

Response: Your opinion is welcomed and important.

Comment #8.B3

Why not leave the CAFO/dairy industry out of the proceedings rather than the taxpaying/impacted public?? That would speed things up!

Response: Your opinion is welcomed and important.

Comment #8.C1

Leaving the public out of the proceedings would lead one to think that our local government officials are in bed with the industry. Perhaps it is time for the Feds to step in again as they did with the water contamination issue, then perhaps we would get some equal representation and reasonable action to protect the public.

No Response

Comment #8.B4

Comments from the public AFTER policy has been formulated by the industry and local government is not equal representation and should not be tolerated by the public or public servants.

Response: Although this pilot project is not a rule, the same 30-day comment period is all that is required for rulemaking per RCW 34.05.

Commenter #9

Comments on YRCAA Draft Air Quality Management Policy and Best Management Practices For Dairy Operations

Comment #9.A1

Leading up to the creation of the Dairy Emissions Workgroup and the YRCAA Draft Air Quality Management Policy and Best Management Practices For Dairy Operations I asked Mr. Pruitt in May of 2010 to “consult with a recognized third-party expert to determine what constitutes substantial adverse effect on public health as per RCW 70.94.640 from odors and fecal dust”.

His reply was “Bear in mind that if a violation is determined, we must consult with a recognized third-party expert in the activity prior to issuing any notice of violation.”

What determines "substantial adverse effect on public health" and what determines if a violation is determined and by who? YRCAA or a third party? This needs to be clarified in your policy.

Response: This subject is not intended to be addressed by the policy. Substantial adverse effect on public health should be determined by a person with public health expertise.

Comment #9.C1.a Are there any off site monitors in place in the lower valley to measure and record fecal dust from the dairies going into the neighboring homes?

No Response

Comment #9.C1.b If there are none are you going to install some?

No Response

Comment #9.C1.c Are there any off site monitors in place in the lower valley to measure and record offsite odors and VOC , some of which are odorless?

No Response

Comment #9.C1.d Does YRCAA have any test equipment capable of testing for fecal dust, odor or VOC coming offsite into the neighboring homes?

No Response

Comment #9.A2

If the answer is no, what are you going to use for a base line to measure your successes or failure of your BMPs?

Response: See Section IX.

Comment #9.A3

There is nothing in your plan to control offsite drift of fecal matter dust, odor or VOC.

How do you plan on controlling offsite drift of fecal matter dust, odor or VOC?

Response: BMPs will prevent, not control, emissions.

Comment #9.C2.a Dust and odor does not wait around for hours and days for YRCAA to come out and investigate. How will it be investigated ?

No Response

Comment #9.C2.b Are odor complaints, pictures and video of fecal dust by the neighbors good enough to warrant a violation or does YRCAA have to see and smell it? Remember Hydrogen Sulfide (H₂S) paralyzes the nerve cells of the nose to the point where your inspector would not be able to smell the gas. Methane (CH₄) is extremely difficult to detect without gas detection instruments because it is odorless and again your inspector will not be able to smell it.

No Response

Comment #9.C2.c Are you going to install offsite testing monitors and are YRCAA inspectors going to have portable test equipment? Having your inspectors measuring odor and gases using their noses is not going to work. In fact it could make them sick and is probably illegal for you to send them out without protective clothing and masks.

No Response

Comment #9.A4.a All dairies are required to have a NMP which is unique to each dairy. Are you going to verify the BMPs for each dairy against their NMP to insure there is no conflict between their NMP and your BMPs for that particular dairy?

Response: BMPs which prevent air emissions will have no effect on NMP activities.

Comment #9.A4.b Also Yakima County has placed requirements against dairies in their MDNS. Are you going to verify your BMPs for that particular dairy against the MDNS from Yakima County?

Response: No.

Comment #9.B1

Are these documents and BMPs going to be in Spanish also? We have a large population of Latinos who also need to know what is going on in this valley.

Response: YRCAA has no such plan.

Commenter #10

Comment #10.C1

I think it's about time something is done to control the emissions from dairies – there are too many animals in a space and that needs to be changed. The air (just as water) belongs to all of us and the consumer should be protected from harm. I think this is the role of the Clean Air Agency. There must be cooperation with the dairy industry but at the same time Clean Air must be sure to enforce regulations and protect the people of this valley. The dairy industry cannot be trusted to enforce itself – it won't happen.

No Response

Commenter #11

Comment #11.A1 The scoring of BMPs is important not only because it gives us a more objective guide, but also because it tells us the degree of importance you place on specific BMPs. I anticipate we may disagree on some, and the dialogue that results should lead to improvements, so it is important that the scoring be flexible and easily updated. I understood that Idaho only addressed ammonia because almost all of the BMPs that reduce those emissions also mitigate many other pollutants, though not to the same degree. Scoring each BMP separately for each pollutant will make for a more complicated system, and probably will make implementation more difficult.

Response: The scoring will be difficult, but not impossible. The scoring system will be tested and updated throughout the pilot phase.

Comment #11.A2 I strongly suggest you develop a very specific policy on the release of information such as the Air Quality Management Plans, inspection reports etc. and that you have that reviewed by legal council. I assume the state AG office is available to you? Producers are going to be very reluctant to cooperate if they don't know what can and cannot become public information.

Response: Certain information which will be contained in an AQMP is exempt from disclosure by RCW 42.56.610.

Comment #11.A3 With respect to the manual you anticipate developing, I suggest that your description of BMPs be very general and intentionally vague. There is going to be a lot of difference between producers in how these are implemented based on equipment available, facility restrictions, economic resources etc. I do think that a comment on which pollutants are targeted by each BMP and how it is mitigated, would be valuable to both dairy producers and the general public.

Response: The manual will be developed during the pilot phase in keeping with your suggestions.

Commenter #12

Comment #12.C1 1. I am wondering how it is that the YRCAA has the authority to write this policy, when previous phone conversations have led me to believe that agriculture (including dairies) is exempt from the rules as they are currently written and that that is why the YRCAA has not been able to act on complaints in the past. What has changed that has provided YRCAA with the statutory authority to write policy on this issue at this time?

No Response

Comment #12.A1 2. Please include a section with definitions of key terms. This is very important. There are many terms in the policy that will impact the effectiveness of the policy. For example; Best Management Practices, Economically Feasible, Technically Feasible, Reasonably Available Control Technology, Fugitive Dust, etc...

Response: The final policy should have a definitions section.

Comment #12.A2.a 3. This policy looks very similar to what the dairies already do under their Dairy Nutrient Waste Management Plans, is there anything new or different here? If not, how can this be effective in reducing emissions?

Response: This policy addresses air emissions and the Nutrient Management Act deals with discharges to water and soils.

Comment #12.A2.b Will these plans be available for public review under FOIA?

Response: Certain information which will be contained in an AQMP is exempt from disclosure by RCW 42.56.610.

Comment #12.A3 4. What qualifications will be required of the person or persons that will be the experts on determining health effects of dairy emissions;

Response: Response: This subject is not intended to be addressed by the policy. Substantial adverse effect on public health should be determined by a person with public health expertise.

Comment #12.A4 and thus what the appropriate levels of emissions will be allowed?

Response: EPA has the responsibility to set such standards.

Comment #12.A5 Who will determine if the policy is sufficient to “...protect human health and safety, including the most sensitive members of the population” RCW 70.94.011

Response: Protection of public health should be determined by a person with public health expertise.

Comment #12.A6 (It seems to me that you will need to include someone on the board who is a public health specialist or epidemiologist in addition to your specialist from WSU, probably a specialist from a school of public health who is well versed in animal agriculture issues).

Response: We would welcome any information from such a person capable making a facility-specific determination.

Comment #12.B1 5. Will you include representation from the community and from the environmental organizations or community based organizations to be on the advisory council to the board from this point forward?

Response: Yes.

Comment #12.B2 6. Will you provide the draft policy in Spanish and allow time for anyone who would need to respond in Spanish? (This may require extending the comment period)

Response: No.

Comment #12. 7. Where will you find funding for both

- C2.a implementation of the policy,
- C2.b assisting dairy operators to develop and implement their plans, and for
- C2.c inspections and enforcement as necessary?
- C2.d How will the funding be distributed between development of plans, inspections, and enforcement?
- C2.e Will it be equally distributed amongst these?

No Response

Comment #12.B3 8. Will you cooperate with Yakama Nation in developing the policy on air quality matters as is stated on page A-2, number 11, under section C-Local Regulations?

Response: Yes.

Comment #12.C3 9. Will you ensure that you follow RCW 70.94.380 which “...mandates local authorities to have requirements for the control of air emissions that are no less stringent than those of the state.” page A-1, number 7.

Response: Yes.

Comment #12.C4 10. If the federal government adopts a policy on air emissions from dairies that is more stringent than what the YRCAA policy is, will you be required to make changes to your policy that reflect this and meet federal standards?

Response: Yes.

Comment #12.C5.a 11. Please describe what the exemptions are that are under RCW 70.94.030 Sections 640?

No Response

Comment #12.C5.b p.A-1, Section A, number 2.

No Response

Comment #12.C6 12. Have any of you read up on the literature of health effects from emissions from Dairy operations? There is beginning to be some interesting literature on the topic. I can forward you a literature review on air emissions from the Oregon Task Force if you are interested. I will forward it to you in another email.

No Response

Comment #12.C7 This is all my comments for now; I may have some more comments to add later. Again, I appreciate that this matter is now receiving the appropriate attention; I hope that you will look at all the comments from the public and make appropriate revisions as necessary.

No Response

Comment #12.C8 I also hope that you will reconsider having some additional members added to the advisory board so that the policy is written with a broader representation that should include the public, public health advisors, environmental activists, and community based organizations.

No Response

Commenter #13

Comment #13.C1 - Note: the following letter was received in a form which did not allow the breakdown or arrangement of comments by topical relevance, so the letter is presented in its entirety as a single “other” comment. However, the following response is offered.

Response: Your opinion is welcomed and important. Bear in mind:

The policy is not:

- A rule or regulation;
- Subject to the rulemaking requirements of RCW 34.05, the Administrative Procedure Act;
- Intended to satisfy any person, group or the subject industry sector;
- Intended to be implemented outside the jurisdiction of YRCAA; and
- A final policy until after:
 - the pilot phase or trial implementation period is completed;
 - an effectiveness assessment has been completed;
 - need for modification has been determined;
 - needed modifications have been accomplished; and
 - the policy is resubmitted to the Board for approval and approval is accomplished.

The policy (including the process) is:

- A pilot program as contemplated in RCW 34.05.313;
- Authorized by RCW 70.94.141;
- A means to:
 - assure a uniform degree of compliance with existing rules; and
 - minimize air pollutant emissions.
- A means of defining “reasonable precautions” as used in WAC 173-400-040(3)(a), which states:

(3) Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

(a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

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December 8, 2010

Via E-Mail (gary@yrcaa.org) & U.S. Mail

Gary Pruitt
Executive Director & Air Pollution Control Officer
Yakima Regional Clean Air Agency
329 North First Street,
Yakima, WA 98601-2303

Dear Mr. Pruitt:

On behalf of the Community Association for Restoration of the Environment ("CARE"), the Law Offices of Charles M. Tebbutt, P.C., submits these comments concerning the Yakima Regional Clean Air Agency's ("YRCAA") proposed Air Quality Management Policy and Best Management Practices for Dairy Operations (the "Policy").

The goals that should have guided YCRAA in its drafting of the Policy are well known and longstanding. The intent of the Washington Clean Air Act is to "secure and maintain levels of air quality that protect human health and safety, including the most sensitive members of the population[.]" R.C.W. § 70.94.011. To that end, it is the purpose of the statute to "safeguard the public interest" through, among other things, "improv[ing] cooperation between state and federal government, public and private organizations, and the concerned individual." *Id.* (emphasis supplied). In addition, YCRAA's own mission is to "build and maintain *partnerships* in the continuous improvement of air quality for all current and future generations in Yakima County."

YCRAA's proposed Policy on Dairy Operations clearly and directly contradicts these legislative goals both substantively and procedurally. Substantively, the Policy is incredibly weak: it essentially authorizes dairies - the regulated industry - to decide how, when, and to what extent they wish to comply with the "requirements" of the rule. The Policy requests dairy owners and operators to, on their own initiative, formulate *what they believe* are the Best Management Practices ("BMPs") they can utilize in reducing fugitive air emissions.¹ They are then to submit these BMPs to YCRAA in the form of an "Air Quality Management Plan" (AQMP). Telling of the process through which the Policy was created (see below), dairies are authorized by the Policy to *unilaterally modify* their approved AQMPs *without notice* to YCRAA, so long as the

¹ Notably absent from the Policy are the sections that actually describe the BMPs and tell the dairies how to select appropriate BMPs.

dairy determines that the modification does not diminish the effectiveness of the AQMP.²

The inadequacies do not stop there. The Policy also allows YCRAA to essentially *do nothing* with regard to approving or enforcing an AQMP. As part of the “approval” process, if YCRAA does not respond to a proposed AQMP within 30 days, the plan is automatically approved. Considering that the Policy was basically drafted by the dairy industry (see below) in conjunction with YCRAA personnel, the inclusion of this “do-nothing” provision further indicates the extent of dairy control over the process. In terms of enforcement, there are absolutely no provisions contained in the Policy that require YCRAA to initiate compliance actions against noncomplying dairies. Instead, in all instances YCRAA “may” initiate enforcement of the Policy.³ There is also no provision governing the timing or procedures for inspections of dairy facilities. YCRAA apparently will be able to determine its own schedule of inspections, as well as creating the guidelines used by inspectors to ascertain compliance with the Policy. If one of these inspections should take place, YCRAA is empowered to issue a notice of violation *only* where an AQMP “is not *fully* implemented[.]” (emphasis added). Partial implementation of an AQMP is apparently sufficient to constitute compliance under YCRAA’s Policy. This language is far from appropriate.

Overall, it would be quite challenging to devise a weaker means of controlling fugitive air emissions from dairy operations than the scheme concocted by YCRAA.

Procedurally, a number of shortcomings plagued the process utilized by YCRAA, and partly explain why the proposed Policy ended up being so incredibly weak. In drafting the Policy, YCRAA decided to include *only* dairy owners and operators in its workgroup along with agency personnel. It did not include members of the concerned and interested public, nor did it include any member of the environmental community.⁴ Instead, YCRAA allowed the dairy industry to use its overwhelming and disproportionate representation to create a Policy that *does nothing* to reduce fugitive air emissions. Just like the dairy industry did when it strong-armed the outcome of the Washington CAFO permits in 2006, here it has specifically tailored YCRAA’s Policy to create the illusion of environmental compliance while ensuring that it can continue “business as usual.”

Outside of these procedural inadequacies, environmental justice issues abound. At no

² Only “substantive” modifications need be reported to YCRAA. Those modifications include “significant changes in operational procedures; changes in BMP selection; and changes in criteria used to determine BMP implementation.” It appears that dairy owners and operators hold the power to determine whether a modification constitutes one of the enumerated categories of substantive modifications.

³ Even more concerning is a provision governing the use of information by YCRAA in enforcement actions, should one ever arise. The provision states that “Information obtained by YCRAA in the course of [AQMP proposals] is not obtained for the purpose of any future enforcement activity.” Thus, YCRAA will be left in an informational vacuum should it take any enforcement action.

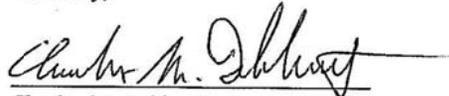
⁴ Indeed, in creating an advisory council to create policy, the local authority must appoint at least one member “whom shall serve as a representative of the environmental community.” RCW 70.94.240. YCRAA decided only to include members of the regulated industry, in blatant disregard of the statute’s requirements.

time were members of the Yakama Nation, who have consistently borne the brunt of dairy pollution, allowed access to the Policy workgroup. Neither were the region's Hispanic residents, who were likely unaware of proceedings because of the lack of Spanish-translated public notice. See *El Pueblo Para El Aire Y Agua Limpio v. County of Kings*, Superior Court of California, County of Sacramento, No. 366045, Dept. 14, p. 10 (1991) (inadequate public participation in environmental decision-making by public officials when public notice was given only in English; translation and publication in Spanish was justified given that large portion of the interested population was monolingual in Spanish and were denied meaningful participation). These two segments of the region's population have been unjustifiably denied their constitutional due process rights of notice and meaningful participation in this matter.

Given the vast procedural and substantive shortcomings of the Policy, CARE insists that YCRAA immediately scrap the current plan, form a new workgroup that includes representatives from the Yakama Nation, the region's Hispanic population, members of the environmental community, and other interested persons, and redraft the proposed Policy so that it *actually* deals with the issues of fugitive emissions and noxious odors from dairy operations. The regulated industries cannot and should not be allowed to draft their own rules and regulations. CARE also requests that YCRAA hold a public hearing on this matter, allowing those members of the community who are unable to effectively communicate their thoughts through the written word the opportunity to voice their concerns orally before the board. Spanish translators should also be available at the hearing.

It is time to put an end to the dairy industry's complete domination of the Washington regulatory agencies that are supposed to be protecting public health, welfare and the environment. You have the power to take steps in the right direction. The proposed Policy does nothing more than allow the industry to avoid accountability by claiming that they are heavily regulated, when in fact the regulations are so vague as to be meaningless. Please start over and make the process one that protects public health rather than the industry that has decimated, and continues to decimate, the lower Yakima Valley.

Sincerely,



Charles M. Tebbutt,
Law Offices of Charles M. Tebbutt, P.C.
451 Blair Blvd.
Eugene, OR 97402
541-344-3505

cc: Governor Christine Gregoire
Dennis McLerran, Regional Administrator, U.S. EPA, Region 10
Ted Sturdevant, Director, Washington Dept. of Ecology

Commenter #14

Comment #14.C1 I'm submitting comments regarding the proposed – AIR QUALITY MANAGEMENT POLICY and BEST MANAGEMENT PRACTICES for DAIRY OPERATIONS. The Policy needs to protect the public's interests, and it must meet the intent of the Washington Clean Air Act.

No Response

Comment #14.B1 The Policy was NOT DRAFTED WITH Adequate public participation. As a result, I believe it will be ineffective in protecting the public's right to clean, healthy air.

Response: Your opinion is welcomed and important.

Comment #14.B2 Your agency needs to start-over with public participation in developing a POLICY to protect clean air.

Response: Your opinion is welcomed and important.

Commenter #15

Re: Comments regarding *Proposed Air Quality Management Policy and Best Management Practices for Dairy Operations, November 2010*.

Comment #15.A1 1. With regard to "Policy, Section II, Who Must Comply with the Policy?" page 3. We suggest language that more specifically denotes that dairies located within the Yakama Nation Reservation will not be subject to expectations or enforcement of compliance with the policy. This would necessarily describe the jurisdictional boundary of YRCAA within Yakima County. E.g., *as with all policies, the jurisdiction of the YRCAA is within Yakima County excluding Yakama Nation Reservation Lands.*

Response: Text added on page 2 to address.

Comment #15.A1.a a. If it is the intent of YRCAA to encourage voluntary practices among dairy farmers on the Yakama Nation Reservation lands, that should be stated plainly and become a matter of consultation with the Yakama Nation leadership.

Response: If it is the desire of the Yakama Nation leadership to encourage or discourage voluntary practices, YRCAA is willing to consult. Otherwise, YRCAA will neither encourage, nor discourage, such voluntary practices.

Comment #15.A2 2. Intent and Purpose of the Proposed Policy: The issue of what could be described as, "actual improvements expected" is unclear. At this time, there is no encompassing data to quantify or even tell us for certain which emissions are currently present due to the dairy operations in the Yakima Valley. Moreover, there is no U.S. policy to limit emissions of certain contaminants. Therefore we do not have a

means to measure the exact reductions these proposed best management practices will provide, nor is there a measure of compliance, specifically, with Clean Air Act Standards. This issue could be explained more fully in the policy and a statement(s) made that logically answer the expectations and constraints of these proposed practices.

Response: The intent of the pilot project is to identify and implement economically and technically feasible BMPs known to be effective at reducing air emissions. There is no intent to quantify such reductions. See response #15.A6.

Comment #15.A3 3. It is unclear whether this policy applies only to dairies with 500 head or greater and if this is a total population or a mature cow population.

Response: Policy text has been changed to include all dairies.

Comment #15.A4 Also, it clearly excludes feedlots and grazing systems but includes several BMPs applicable only to grazing systems. This needs clarification.

Response: Policy text has been changed to clarify.

Comment #15.A5 Are the dairy heifer feeding operations covered under the existing fugitive dust control plan along with beef feedlots because you are assuming no emissions from these types of operations?

Response: No.

Comment #15.A6 4. The plan calls for describing the criteria for selection of the implemented BMP and which pollutant group will be reduced as a result of implementation. There are serious flaws in this component. It cannot be reasonably expected for operators to have this information without prior monitoring. It is generally accepted that further studies are needed to collect viable data.

Response: YRCAA agrees that further studies are needed and are being conducted. However, by policy YRCAA is pursuing the recommendation of the National Academy of Sciences: "Best management practices (BMPs) aimed at mitigating AFO air emissions should continue to be improved and applied as new information is developed on the character, amount, and dispersion of these air emissions, and on their health and environmental effects. A systems analysis should include impacts of a BMP on other parts of the entire system."

Comment #15.A7 At this time we do know that there are many variables to measuring these emissions, including but not limited to diurnal and seasonal fluctuations, climatic influences and animal stress factors. An operator may, in good faith be implementing practices from the BMP "menu" for a pollutant emission that he in fact contributes very little to and ignoring the real problem from that particular site. We can't know this without intensive monitoring and data collection.

Response: Facility-specific problems will be discovered through implementation of the pilot project and any AQMP which does not address the real problem will not be approved.

Comment #15.A8 The policy calls for describing the method of monitoring the implementation of each BMP, which essentially is monitoring the functionality of the practice rather than monitoring the expected reduction in emissions.

Response: Agreed.

Comment #15.A9 5. Several of the BMPs are not applicable to dairies and several contradict each other, so it is important to understand the emission constituents at each site before establishing a policy to reduce them.

Response: YRCAA already understands the emission constituents of concern for dairies as a sector. Facility-specific emissions of concern will be discovered during the pilot project.

Comment #15.A9.a A major concern is that several practices designed to protect air quality may negatively affect water quality; therefore it is extremely important to provide a full technical manual of all these practices including the potential unintended environmental consequences to other natural resources.

Response: Agreed and planned.

Comment #15.A9.b This was also recommended in The National Research Council of the National Academies report on Air Emissions from Animal Feeding Operations; Current Knowledge, Future needs:

“Recommendation: Regulatory and management programs to decrease air emissions should be integrated with other environmental (e.g., water quality) and economic considerations to optimize public benefits.”ⁱ

For example; there are consequences to injecting manure if you are in a floodplain or high water table area and excessively well drained soils. Also several practices discourage applications on fields with crop residue, yet conservation tillage is encouraged for natural resource protection.

“Recommendation: Best management practices (BMPs) aimed at mitigating AFO air emissions should continue to be improved and applied as new information is developed on their character, amount, and

dispersion of these air emissions, and their health and environmental effects. A systems analysis should include impacts of a BMP on other parts of the entire system.”ⁱⁱ

Response: Agreed and planned.

Comment #15.A9.c These issues warrant an evaluation of this plan with a more holistic view to account for those unintended consequences and including a complete technical manual which operators can use to guide them to implementing practices that will provide the most environmental benefit, and not just to collect ranking points.

Response: Agreed and planned. As with most efforts, once you decide what the right thing is, you must decide how and when to do the right thing. This agency now has a principle of doing the right thing, at the right time, the right way, the first time, every time.

ⁱ http://milk.procon.org/sourcefiles/EPA_AFO_Final_Report.pdf

ⁱⁱ Ibid

Commenter #16

Comment #16.C1

RCW 43.21C

Assure all people Of Washington a safe, healthful, productive, and aesthetically and culturally pleasing surrounding.

Maintain environment which supports diversity and individual choice The legislature recognizes that each person has fundamental and inalienable rights to a healthy environment.

No agency of the government has the authority to allow or permit any operation that creates trespass, nuisance, that creates health effects and environmental effects upon other citizens. This is the taking of Private Property under any color of the Law.

No Response

Comment #16.C2

Quality of the Environment cannot be EXEMPT

No Response

Comment #16.C3

WAC 173-400 regulations for air pollution sources

No Response

Comment #16.C4

THE RIGHT TO FARM ACT DOES NOT GIVE A PERSON THE RIGHT TO POLLUTE, AIR WATER, NOISE.

No Response

Comment #16.C5

This policy does nothing for the people that live around a dairy, but it gives the dairy another layer of paper that they can point at and say we are so over regulated and we are complying with YRCAA policy.

No Response

Comment #16.C6

This is written buy the dairy for the dairy and give the public nothing.
This policy is nothing more THAN A LOT OF SMOKE AND MIRRORS.
THIS POLICY IS AS CLOSE AS YOU CAN GET TO PROTECTIONISM

No Response

Comment #16.C7

The civil rights and property rights of people who have to live by the dairies who by the way,most of the time moved in on them and changed their way of life need to be addressed.

No Response

Comment #16.C8

At the very least the dairies are a public nuisance and trespass on peoples property and are a threat to public health.

No Response

Comment #16.C9

Policies are not enforceable as are BMP's and NMP's but are feel good measures that are used as a means to skirt the real issues taking place.

No Response

Comment #16.C10

POLITICS HAVE NO PLACE IN RULE MAKING, it should be all about what is good for the publics health and well being not about what is good for a certain group.

No Response

Comment #16.C11

They just want to be good neighbors, they need to look up the term. If they say it enough then it must be true.

No Response

Comment #16.C12

The YRCAA has stated that they are trying to do something about air quality around calfos, and this policy is about not doing anything, but it looks good on paper and nothing else.

No Response

Comment #16.B1

START OVER AND DO IT RIGHT OR DO'NT DO ANYTHING AS YOU HAVE DONE IN THE PAST.

Response: YRCAA disagrees that we have done nothing in the past and believes that a pilot project to determine what best to do in the future is appropriate.

Comment #16.C13

I thought YRCAA was about clean air not BMP. You need to make up your minds on what you are to be doing.

No Response

Comment #16.C14

All we asked for was a third party with the expertise to help YRCAA because Gary stated they did not have the expertise to do anything about air quality around calves, and this is what we got, a worthless policy.

No Response

Commenter #17

I wish to comment as a citizen on the proposed guidelines for the regulation of large dairy operations in Yakima Valley. As to my background, I received a MA from the University of Washington in Economics with two special fields, Public Finance and Natural Resources. During my years as an academic I was a Junior Agricultural Economist at Washington State University and a Senior Research Associate at the Institute for Social and Economic Research at the University of Alaska.

Comment #17.C1 From an economic standpoint granting an emissions permit to a dairy introduces two serious inefficiencies. First, there is a transfer of significant costs from the dairy owner to those citizens who will be harmed by the pollution. Second, the market for bulk dairy product will be distorted in favor of polluting operations against non-polluting operations. It is a basic principle of economics that all the external costs of production need to be internalized to the owners to the extent that there is no longer any profit derived from polluting. Clean air is simply not to be squandered for anyone's profit.

No Response

Comment #17.C2 It is a breach of public trust for the YRCAA to protect emitters from litigation by putting up a legal buffer in the form of this regulation. Under current rules and law the owners of concentrated feedlot operations have an unlimited liability for the deleterious effects on the health of those exposed to their pollution. Section I of the Draft implies that YRCAA will take on much of the burden of liability. What is actually stated is that YRCAA will accomplish or achieve compliance with the Clean Air Act. Those words can be construed to mean that YRCAA shoulders much of the burden of liability, because that liability cannot simply vaporize. The issue of liability needs to be addressed frankly in this regulation, in terms that a court will understand.

The Washington Department of Ecology has a memorandum of understanding with the Washington Department of Agriculture with respect to the regulation of dairy operations. Washington Department of Agriculture clearly has the experience and capacity to regulate farm operations.

No Response

Comment #17.C3 I suggest that the YRCAA approach the Washington Department of Agriculture about drafting another memorandum on dairy regulation in order to reduce

the duplication and cost of government enforcement. YRCAA's primary responsibility to protect regional air quality might continue to be done with air monitoring and the issuance of notices of violation.

No Response

Comment #17.A1 In Section VI of the draft there is a statement that the failure of YRCAA to act within a limited time frame constitutes approval of plans submitted by the dairy.

The YRCAA should not give away that authority. There may be reasons and conditions for delays and extensions.

Response: Agreed. Text was changed to address.

Comment #17.A2 In the same section the authority of YRCAA to enforce standards is obviated if the information about a violation is obtained through cooperation on the part of the polluter. It is often the case that enterprises are required to provide information that leads to enforcement and I believe that needs to be the case with dairies given the difficulty the agency would have in getting information by direct observation.

Response: No authority is obviated or waived. This passage merely states what is the purpose and what is not the purpose of good faith negotiations. Enforcement action will be taken when called for according to agency enforcement policy.

Comment #17.A3 Also in this section, the descriptor "adequate" grates with my sense of what is necessary to "achieve" compliance. It tells me that YRCAA is aiming for the lowest permissible level of compliance.

Response: It is unclear how one could arrive at such a perception.

Comment #17.A4 Lastly, scale is not addressed anywhere in the document. Scale needs to come into the picture. What YRCAA would permit for one large dairy enterprise cannot possibly be acceptable for eighty or so similarly sized dairies.

Response: YRCAA implements laws, rules and policies on an agency-to-facility basis, not on an agency-to-sector basis.

Commenter #18

Thank you for the opportunity to comment on the document entitled, "Air Quality Management Policy and Best Management Practices for Dairy Operations." The following comments are presented as the opinions of individual members of the faculty and student researchers at Johns Hopkins Bloomberg School of Public Health (JHSPH) and do not necessarily reflect the position of the School or University. Among the authors of this comment and colleagues here at the school, we have extensive expertise relating to the protection of the health of persons residing in agricultural communities in proximity to large-scale poultry, swine, dairy cattle and other animal production facilities.

We would like to express our support to the Yakima Regional Clean Air Agency (YRCCA) for proposing policies to control emissions from dairies. However, it is our position that the proposed policy, as described in the December 3rd version of the draft,

has numerous shortcomings that will likely limit its ability to reduce emissions, and therefore to protect public health.

Comment #18.A1 In particular, it is our professional judgment that employment of best management practices, in the absence of well-designed monitoring, measurement and enforcement plans, is likely to achieve little in the way of mitigating community exposures.

Response: Your opinion is welcomed and important.

The following bulleted points encompass some fundamental issues identified during our review of the proposed draft policy:

Comment #18.A2 The proposed policy for minimizing emissions does not include any requirement for monitoring, and as a result, offers no evidence upon which to:

- .a Characterize baseline emissions (in terms of pollutants and their respective magnitudes)
- .b Determine what types of best management practices are needed to reduce emissions
- .c Establish goals for reductions
- .d Determine whether emissions reduction goals have been met, and evaluate whether employed BMPs have been effective or useful in achieving those goals Without real data to bolster AQMP development and evaluation, it is unlikely that determination of whether emissions reductions have been achieved can be made with any certainty. Further, if reductions cannot be demonstrated, it is unclear how YRCAA can determine that potential community risks stemming from air emissions have been mitigated.

Response: The decision to develop and implement this policy is based largely on the findings and recommendations of the National Academy of Sciences found in its 2003 report, *Air Emissions from Animal Feeding Operations; Current Knowledge, Future Needs*. There exists no means to absolutely measure the effects of taking an aspirin to relieve a headache. That fact doesn't prevent one from doing so. The aforementioned report states:

“Best management practices (BMPs) aimed at mitigating AFO air emissions should continue to be improved and applied as new information is developed on the character, amount, and dispersion of these air emissions, and on their health and environmental effects. A systems analysis should include impacts of a BMP on other parts of the entire system.”

Comment #18.A3 The approval process for AQMPs is unlikely to result in significant emission reductions without a data-driven methodology for plan approval. The currently proposed approval process appears to be largely subjective and disproportionately influenced by the burden placed upon dairy operations.

Response: Your opinion is welcomed and important. However, YRCAA disagrees.

Comment #18.A4 There does not appear to be a clear description of an enforcement plan intended to address compliance failures in regards to implementation plans or for violations of approved plans.

Response: YRCAA does not intend to take enforcement action for noncompliance with the policy. Enforcement action, if needed to assure compliance, would only be taken for failure to comply with existing laws, rules or orders.

Comment #18.A5 There is a lack of mention of involvement of the community in the proposal. Mechanisms should be in place to perform inspections and issue citations based on community complaints, and the community should be engaged and given a voice in the policy approval process.

Response: Citizen complaints, alleging dairy violations of existing laws, rules or orders, have and will be addressed according to agency compliance assurance policy. Policy approval authority is given only to the agency governing Board of Directors.

Comment #18.A6 There does not appear to be a plan for providing dairy operators with technical assistance in AQMP development. Dairy operators may lack the technical expertise necessary to evaluate the appropriateness of BMPs for reducing specific pollutants, and in some cases, operators may lack the knowledge needed to determine the nature of pollutant emissions from the various components of dairy production. If operators are expected to develop plans that will be successful in reducing emissions, it is important that the State or someone else make available someone with the appropriate expertise, even if a fee is charged for these services.

Response: Agreed. However, it is not within the intent of this policy to establish business relationships. YRCAA staff can provide technical assistance and can refer operators to technical service providers.

In addition to these points, we have attached an appendix detailing specific comments corresponding to noted excerpts of the text from the draft policy document.

Comment #18.B1 Based on our review of the draft policy document, it is our recommendation that the YRCCA revise the document and provide a second public comment period for the revised proposal. Please contact us if our technical expertise can assist in this process.

Response: As a pilot project, this is exactly what is planned. Once the pilot project is completed, YRCAA staff will revise the policy, based on an improved knowledge base, and present a final draft policy for public comment and consideration for Board approval. Section III.C of the policy plan states:

“The development of this policy is in itself a pilot program. This process will enable both dairy operators and the YRCAA to determine how effective the practices and standards are before formalizing the Policy by Board adoption. After an assessment of the effectiveness of the Policy, the need for any adjustments will be determined and decisions made whether an amended Policy should be put into dairy-specific regulations.

The pilot phase will make the ultimate adoption of regulations, if necessary, less subject to dispute over what is needed and effective.”

Sincerely,

D'Ann L. Williams, DrPH Sr. Research Specialist

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Meghan F. Davis, DVM, MPH

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Appendix: Specific Comments (organized by page and section numbers)

Page 3: How Does the Policy Work?

Comment #18.A7 The draft policy document does not specify how compliance with the AQMP will be assessed.

- .a** The policy should detail a formalized evaluation strategy that hinges upon the collection and examination of air monitoring data collected using accepted measurement methods. If requested, we would be willing to advise the YRCAA on accepted methods to assess real-time air emissions. We also would like to offer our help to evaluate any strategies proposed by the YRCAA to address real-time measurements of air emissions for policy evaluation.

Response: The policy does not contemplate, nor does it support, air monitoring of fugitive emissions.

- .b** In the event of a dispute regarding the compliance of a particular dairy operation with an approved plan, resolution should be conducted by a neutral and objective mediator and should involve all stakeholders, including members of the community. It is inadvisable that the outcome of the dispute be determined or influenced by the Dairy Workgroup.

Response: YRCAA will make all determinations as to compliance with the policy. Requesting the work group to provide input to such determinations in no way relieves YRCAA from that authority or responsibility.

Pg 5 c. iii. (A description of BMPs to be used under the plan to reduce emissions of targeted pollutants.)

Comment #18.A8 The methods that this policy will use rely on self-monitoring and self-report; as such, acceptable monitoring methods and protocols must be adequately

described, defined and used. Standardized and uniform monitoring reports must be generated by objective parties and should be based on current scientific understanding.

- .a Specifically what are the standards and parameters that will be monitored to reduce emissions?

Response: The policy does not intend to establish standards and parameters. Rather it intends to identify and implement known practices which reduce emissions and verify the practices are utilized, either by actual observation or by credible recordkeeping.

- .b We recommend penalties for a failure to monitor and report effectiveness of BMPs.

Response: YRCAA does not intend to take enforcement action for noncompliance with the policy. Enforcement action, if needed to assure compliance, would only be taken for failure to comply with existing laws, rules or orders.

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VI. How are AQMP Developed and Approved?

Comment #18.A9 The failure of the YRCAA to notify dairies about their submitted AQMP should not constitute approval. If the YRCAA receives the AQMP plans on February 15th, 30 days may not be sufficient to thoroughly evaluate all of the submitted plans. A phased approval process should be implemented. Deadlines could begin on February 15th and continue until all dairies have been completely evaluated. This could begin with the largest facilities to provide the YRCAA with adequate time to completely evaluate AQMPs and work with dairies to ensure the efficiency and feasibility of the submitted AQMPs. Acceptance of AQMPs should be officially stated by written correspondence between agency/dairy.

Response: YRCAA agrees and text has been changed. However, review/approval of a plan and a full compliance evaluation of compliance with the policy are two entirely separate processes.

VII. How and What Changes Can be Made to an Approved AQMP?

Comment #18.A10 The use of the term "non-substantive changes" is ambiguous and may lead to confusion or abuse. The policy should require that all changes in dairy management, BMPs, AQMP and other processes must be made in writing and submitted to YRCAA and receive approval before being made. Alternatively, a precise definition of non-substantive change should be provided.

Response: YRCAA believes the descriptions of substantive and non-substantive changes are adequate for the pilot project. However, knowledge gained in the pilot phase may cause revisions to be made.

Comment #18.A11 Failure to comply with YRCAA notification regarding changes to approved AQMP should be subject to a defined schedule of penalties. Disincentives should be clearly stated in writing and details must be written which describe the steps that the YRCAA will take to correct and/or enforce this policy.

Response: YRCAA does not intend to take enforcement action for noncompliance with the policy. Enforcement action, if needed to assure compliance, would only be taken for failure to comply with existing laws, rules or orders.

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How will YRCAA Determine When an AQMP is Acceptable?

Comment #18.A12 What are the specific methods to be used to determine compliance?

Response: Actual observation and/or review of recordkeeping.

Comment #18.A13 How will implementation be evaluated or measured?

Response: Actual observation and/or review of recordkeeping.

Comment #18.A14 How will effectiveness be evaluated?

Response: As described in Section IX.1.

Comment #18.A15 What are the target values?

Response: There are no target values.

Comment #18.A16 The YRCAA should keep and review the records of community complaints to aid in selection of specific BMPs for currently identified problems at specific locations.

Response: Agreed.

Appendix A - Pg A-2

Comment #18.A17 Why would a variance be awarded or any facility exempted from Regulation 1?

Response: YRCAA is not aware of any reason.

Comment #18.A18 There should be no exemptions to Regulation 1.

Response: Agreed.

Comment #18.A19 What constitutes a violation of the AQMP?

Response: Failure to comply with either the operational plan or the AQMP.

Comment #18.A20 Is the determination of a violation up to the discretion of the YRCAA, the local police or other agencies?

Response: YRCAA.

Appendix B - Pg B1 - B8

Comment #18.A21 The BMP recommendations are incomplete and do not provide sufficient guidance to producers for criteria to select on BMP over another. We recommend providing scientific references or links to agricultural extension documents describing techniques and expected efficacy in more detail. Before policy

implementation, we recommend that YRCAA provide a review of BMPs and training for implementation for producers and their operators on BMP.

Response: During the pilot project, YRCAA anticipates development of a manual, complete with enough information to allow informed decisions as to BMP selection. Training sessions and technical assistance will also be offered.

Community Concerns:

Comment #18.A22 This policy makes no provisions for resolving community complaints. This is a major omission of the current draft policy. Steps must be developed which describe the steps that community members must take to submit complaints, who will address these complaints, what support community members can anticipate to address their complaints and concerns, and what clearly defined steps will occur between the YRCAA or enforcing agency and dairy indicated in the complaint.

Response: The policy is not intended to rewrite existing YRCAA policy for complaint response, compliance assurance and enforcement.

Community Health:

Comment #18.A23 These BMPs which are designed to prevent violations of the CAA target chemicals and particulate matter. However, these policies will not fully address odors and hazardous biological agents, endotoxins, and allergens, which are important unregulated contaminants. Exposures to these unregulated contaminants have been associated with health effects in agricultural workers and communities which are exposed to industrial scale animal facilities. These health effects include but are not limited to asthma, sinusitis, rhinitis and upper airway diseases, eye and nasal membrane irritation; in addition, malodor has been associated with disturbance of psychosocial factors and reduced quality of life.

Response: Agreed.

Environment and Agricultural Engineering:

These facilities impact air and water quality and can have major impacts on local and regional environmental quality.

Comment #18.A24 This draft policy does not adequately lay out the combined use of any or all of these BMP to effect emissions. Many of the BMPs that are recommended to reduce emission for one pollutant may increase the emissions of others; may be inconsistent with other programs, such as NPDES; or may impact animal health. For example, to reduce fugitive dust emissions, policy recommendations include maintaining the surface moisture content of drylot pens to minimize dust and odor, and to control the emissions of NH₃ it is recommended to avoid over-applications of water to drylot pens after sustained dry periods. These are mutually exclusive practices and these contradictions in BMPs must be thoroughly evaluated for each individual facility this policy to be effective.

Response: Agreed.

Commenter #19

Comment #19.C1 As you and I know, air knows no boundaries and is free to move about. Consequently even people that are not in close proximity to the source of air emissions, such as my family living in Richland, Washington are impacted by these dairy emissions. And I suspect the holistic impact of the air emissions from the dairy operations have unknown and latent effects on the local and regional environment and ecology - affecting also the water, flora and fauna. Quality of life or well-being goes beyond the immediately obvious, observable, and known health effects due to the recognized air emissions from dairy operations. Aesthetics, haze, odor and other human values also suffer. And yes, I do use and enjoy dairy products.

No Response

Comment #19.A1 I agree with the policy to use BMP to mitigate and regulate the air emissions from dairy operations, as I feel these operators or anyone else does not have the carte blanche right to pollute the air we breathe.

Response: Thanks.

Comment #19.C2 Our regulatory bodies and officials (local, regional, state and federal) who have responsibility to look out for the public and environment have been far too slow in addressing the issue.

No Response

Comment #19.B1 I feel the BMP should be periodically reviewed (say every 5 years) and updated as new information, methods and technologies become available to deal with the problem.

Response: Agreed, but more frequently.

Comment #19.A2 I also feel that long-term air quality monitoring for specific air pollutants produced by dairy operations need to be implemented and/or expanded in order to measure trends in pollutant concentration and performance of the BMP. If you don't measure how do you know? At least a portion of this AQ monitoring cost should be borne by the dairy operators.

I wish to close by acknowledging and thanking all those involved in trying to improve the quality of air, including the dairy operators, their trade association and the YRCAA.

Much more can be accomplished in shorter time if we all work together with a common goal in mind.

Response: Agreed, however air monitoring for fugitive emissions is not feasible. In terms of working together, YRCAA believes that those working together should remain focused on the interest of air quality and avoid taking hard positions.

Commenter #20

Northwest Dairy Association appreciates the opportunity to submit these comments to the Draft Air Quality Management Policy and Best Management Practices for Dairy Operations. The Northwest Dairy Association (NDA) is an integrated milk marketing and processing cooperative that is owned by approximately 525 dairy producers. NDA is

the dominant agricultural dairy cooperative in the State of Washington and is comprised of many dairies that will be affected by the YRCAA's draft policy.

Comment #20.A1 Because of the importance of this policy to NDA's members, NDA requests that the YRCAA carefully consider the approach it is taking, as well as the content and implementation of its proposed policy. NDA supports identifying and implementing appropriate and feasible best management practices that are cost-effective and designed to reduce dairy emissions. We welcome the opportunity to work with the YRCAA to refine the draft policy and best management practices, as well as to develop a worksheet to assist dairies in implementing the policy. We do not, however, believe that it is appropriate or reasonable to finalize this policy now for the following reasons:

Response: Agreed, the pilot project will allow for development of a worksheet, a manual, technical assistance and training sessions.

.a First, without the worksheet, which YRCAA agrees is a critical component to implementation of the plan, dairies are deprived of an opportunity to understand how the policy and the selection of best management practices for the plan will be implemented and evaluated by the YRCAA.

Response: Agreed.

.b Second, the regulation of the air constituents proposed in policy, without consideration of whether those constituents exceed regulatory thresholds, seems to go beyond the federal or state Clean Air Acts.

Response: YRCAA disagrees. See RCW 70.94.141.

.c Third, finalizing this policy before EPA has concluded its national dairy emissions study is premature and subjects dairies in the Yakima area to air quality requirements that do not exist for dairies anywhere else in the country.

Response: YRCAA disagrees. California, Oregon and Idaho have regulatory requirements for dairies. Although the policy is not expected to be final until sometime in 2012, it will then be only a policy, not regulation.

.d To the extent that these plans require Yakima dairies to spend money developing and implementing plans that are not required elsewhere, the Yakima dairies are placed at a competitive disadvantage in the marketplace.

Response: With the increased expectation from major retailers that suppliers be environmentally conscious, it would seem to provide a competitive advantage.

While we understand that it is important for the dairy industry and the YRCAA to move forward with reasonable measures that will improve air quality in the Yakima area, we do not believe that the YRCAA's policy is a reasonable approach at this time. We offer our comments as an alternate approach, which allows the YRCAA to make progress reducing dairy emissions, without creating unreasonable expectations or objectives.

Response: Acknowledged, not agreed.

Comment #20.A2 We suggest that the policy and management practices remain in draft form, with the revisions identified below, and

.a that the policy be implemented as a pilot project for a period of 12 months. This approach provides an opportunity for the YRCAA to implement and evaluate the policy and its associated best management practices over an entire annual weather cycle.

Response: Agreed and planned.

.b As part of the pilot project, the plans created by dairies who participate in the pilot project and inspections conducted as part of the pilot project should not be subject to the Public Records Act.

Response: Agreed, see RCW 42.56.610.

.c Inspections conducted on dairies that prepare plans as part of the pilot project should be inspections for purposes of evaluating the pilot project, not inspections of dairies for purposes of determining compliance with the dairy's individual plan.

Response: Agreed, in part. Without determining compliance with AQMPs, the project itself cannot be adequately evaluated. YRCAA however, has no intent, even after the policy is final, to take any enforcement action for failure to comply with the policy.

Comment #20.A3 As part of the pilot project, the YRCAA should work with the dairy industry to develop a worksheet and scoring system that will facilitate preparation of the plans.

Response: Agreed and planned.

.a Once that worksheet is developed, NDA will work with the dairies in the Yakima Valley to identify volunteer dairies willing to prepare plans based on the worksheet and implementation of the plans.

Response: YRCAA disagrees with the chronological order.

.b The YRCAA will be able to inspect those dairies after implementation of the plans to evaluate the effectiveness of the pilot project and to then determine how best to finalize the policy.

Response: Agreed and planned.

Consistent with our comments above, we offer the following specific text revisions to the draft policy and best management practices:

Comment #20.A4 Background: We suggest deleting most of the background text, which is unnecessary. Additionally, dairies are highly individualized businesses and practices can seldom be summarized. For that reason, we suggest the following revised text:

“YRCAA began working with local beef cattle feedlots in 1993 to minimize dust emissions by developing and implementing fugitive dust plans. Since then, the plans and their effectiveness have improved each year. In 2001, YRCAA worked with heifer replacement and calving operations to develop a fugitive dust control policy for dairy heifer feeding operations. Because dairy operations generate fugitive emissions, YRCAA has developed this draft policy using the same approach it has taken for cattle feedlots, heifer replacement, and calving operations. Implementation of the policy will constitute “reasonable precautions” to minimize emissions from dairy operations. This draft policy only applies to dairies where cows are confined for feeding and milking and where

significant emissions of air pollutants exist. This policy specifically acknowledges that air emissions from dairy operations cannot be eliminated and that all management practices must be economically and technically feasible. As part of the development of the final policy, YRCAA will work with dairies to develop a pilot project, which will voluntarily implement the draft policy through developing and implementing flexible, site-specific Air Quality Management Plans. The Plans will be developed by each dairy.”

Response: The text has been changed.

Comment #20.A5 Policy: NDA requests the following revisions to this section of the draft policy:

.a Replace the text of the first sentence with the following: “The purpose of this policy is to provide guidance for the effective prevention and control of air contaminant emissions at dairy operations that confine cows for feeding and milking and have significant dairy emissions.”

Response: No text change. Addressed in Section II.

.b Replace all references to “Dairy Operations” to “dairy operations regulated by this policy.”

Response: No text change. Addressed in Section II.

.c II.1: Delete the text and replace with the following: “Dairy operations that confine cows for feeding and milking and have significant dairy emissions.”

Response: No change.

.d Delete II.2 which goes far beyond the requirements of the federal or Washington Clean Air Act. The pilot study and EPA’s national air study will provide sufficient information from which to determine which dairies should be regulated by the YRCAA policy consistent with applicable statutory and regulatory authority.

Response: There is no II.2.

.e IV.2: Delete existing text and replace with the following: “Once the draft policy is finalized, existing dairy operations regulated by this policy must submit plans annually, no later than February 15th.”

Response: No change.

.f V.2: Replace the first sentence with the following text: “The following pollutants are targeted for emission reduction and must be identified in the AQMP. The YRCAA acknowledges that neither the federal Clean Air Act nor Washington’s Clean Air Act regulates these pollutants unless they exceed regulatory thresholds set forth in the federal Clean Air Act and/or Washington’s Clean Air Act. Nothing in this plan should be interpreted as making any statement or finding that any dairy preparing an AQMP exceeds any regulatory threshold for any constituent identified in the plan or in this policy.”

Response: No change.

.g VI.5: This section should be deleted. The failure to comply with the policy should not give rise to any compliance/enforcement action because the policy is not a rule.

Response: Text changed, not deleted.

.e IX.1: The last sentence should be deleted from this section for the same reasons as those stated in Section VI.5 above.

Response: Text changed, not deleted.

Comment #20.A6 Appendix B: NDA strongly objects to the narrative descriptions summarizing the various air pollutants, which is unnecessary and, in some cases, inaccurate or misleading. NDA requests that the narrative descriptions be deleted.

Response: Not deleted.

Alternatively, text revisions to Appendix B are as follows:

.a I. Ammonia: Delete the entire first paragraph after the words “temperature and relative humidity in specific.”

Response: Not deleted.

.b V. Odor: Delete the following sentence: “Odor is a common source of complaints from people living near AFOs, and it is for local impacts that a reliable method for odor measurement should be pursued.” This draft policy does not and should not propose to measure odor. Consequently, recommendations for future actions involving odor measurement should be deleted from this draft policy so that people reading the policy do not mistakenly presume that dairies subject to this policy are responsible for developing a method to measure odor.

Response: Agreed. Text deleted.

.c VIII. Methane: Revise the text in the third paragraph, third sentence to read as follows: “Methane is a greenhouse gas that, under certain circumstances, contributes to global warming.”

Response: Text added.

Commenter #21

Our comments are on your process and lack of inclusion of the public.

Comment #21.B1 1. Include Helen Reddout, CARE (Community Association for the Restoration of the Environment) as a contributing voice and source of information from the perspective of those who are impacted by poor air quality. Helen's experience should be utilized and respected. The board needs to have an information and listening session with Helen.

Response: Attempts to arrange a meeting with Helen in July, 2010 failed.

Comment #21.B2.a 2. Reach out in written form and publicly invite the Yakama Nation to be a recognized part of the process.

Response: A Yakama Nation representative has been appointed to the work group.

.b Invite a Tribal Council Member to be an active member of your process. Include them in the talks and in the informational meetings.

Response: A Yakama Nation representative has been appointed to the work group.

Comment #21.C1 Even though you do not have authority on the Reservation, you are not able to stop Yakima County air from polluting Yakama Reservation air.

No Response

Comment #21.C2 There are dairies from off the Reservation, under the jurisdiction of Yakima County, that are dumping polluted, liquid feces and urine within the boundaries of the Yakama Reservation bringing fecal bacteria into the air.

No Response

Comment #21.B3 Including the Yakama Tribe in your process, listening to Tribal concerns and recognizing the Tribal Government and peoples of the Reservation would be beneficial and might help lower the level of anger in the community.

Response: Agreed and in progress.

Comment #21.B3 3. Reach out and invite a Hispanic community leader, giving the Hispanic Community a voice in the process. The Hispanic community is hugely impacted by this issue.

Response: We would welcome a Hispanic community leader.

Comment #21.C3 4. Stop the negative comments towards Jan Whitefoot, Jim and Larry in your in house emails to each other. Regardless of their positions, it was unfair to accuse them of wanting to get rid of all dairies. That has not been and is not true. Some of the Board's email responses re: valid concerns from frustrated citizens who feel they do not have a voice, have been less than professional. This has stirred up more anger and frustration.

No Response

Commenter #22

Comment #22.B1 This letter is to inform you that the Community Association for Restoration of the Environment (CARE) vehemently objects to the policy making process the Yakima Valley Regional Clean Air Agency (YRCAA) developed and implemented to create the Draft Air Quality Management Policy and Best Management Practices (BMPs) for Dairy Operations. Specifically, CARE is opposed to the work group that was formed to develop the policy because it consulted only dairy industry stakeholders and not one representative from the public or the affected community.

Response: Acknowledged.

Comment #22.B2 As stated in the YRCAA Public Notice for the Draft Air Quality Management Policy and BMPs for Dairy Operations:

Public concerns about the possible health effects of air emissions from dairy operations have grown with the increasing size and geographic concentration of these operations ... Emissions from dairies are a significant concern, not only for new residents in these areas, but for many long-time residents ...

Despite this, it appears the policy work group consulted only "local dairy operator expertise" and "local dairy technical service provider expertise." The work group did not consult area residents, the impacted community, or public health and environmental experts.

As you are aware, it is the policy of the YRCAA to "secure and maintain levels of air quality" that will not only "protect human health and safety and prevent injury to plant and animal life and property," but also to "*cooperate with the local governments, the Yakama Nation, organizations or citizens on air quality matters.*" Regulation 1 of the YRCAA, Section 1.03 (A) 1,2, and 11 (March 2000).

It is unclear as to how consulting only with the regulated industry to draft its own regulations furthers this policy objective.

Response: First, in addition to the end users of the policy, also involved were two scientists with direct expertise in air emissions from dairies. Second, the policy was written by the YRCAA Air Pollution Control Officer. Third, as of December 27, 2010, comments received during the public comment period have resulted in significant changes in policy text. Lack of trust in the policy-making process is not with the influence of YRCAA. Trust is a belief born of experience and those which are most critical have little or no experience with YRCAA. Fourth, neither this pilot project policy, nor the final policy is a regulation.

Comment #22.C1 Further, it is the role and responsibility of the Board of Directors to "consult, cooperate, or contract with other agencies, departments, educational institutions, governments, and *interested persons or groups.*" Id. at 1.05 (B) 11. By not cooperating and consulting with citizens and other interested persons or groups aside from the dairy industry in the development of the Draft Policy, the Board has excluded those persons who prompted this action.

The Board has clearly failed in its responsibility to consult, cooperate, or contract with other agencies, departments, educational institutions, governments, and interested persons or groups in developing said policy. The Board has also failed to meet its responsibility to cooperate with the local governments, the Yakama Nation, organizations or citizens on air quality matters.

No Response

Comment #22.B3 By this letter, we formally request that the YRCAA retract the Public Notice for the Draft Air Quality Management Policy and BMPs for Dairy Operations and reconvene the policy workgroup.

Response: Request denied.

Comment #22.B4 The policy workgroup should be reconvened to consult with an equal number of representatives from the public health and environmental communities, affected citizens, and interested persons or groups as dairy industry consultants.

Response: YRCAA disagrees.

Comment #22.C2 The YRCAA should seek input from these stakeholders and make revisions to the Draft Policy based on this input prior to reissuing the Public Notice.

No Response

Commenter #23

According to your draft policy statement, the purpose of this policy is to "provide guidance for effective prevention and control of air contaminant emissions at Dairy Operations." (p. 3)

Comment #23.A1 In order to do this, one would presume that BMP's would be suggested, applied, and then the emissions would be monitored to determine if the BMPs did, indeed, "provide guidance for effective prevention and control of air contaminant emissions at Dairy Operations." (p. 3)

In fact, the draft goes on to say that this process will "achieve prevention and control of emissions by describing a menu of operation and pollutant-specific best management practices (BMPs) for Dairy Operations [and] ..inform [dairy] owners and operators on effective prevention and control of emissions and provide a means by which Dairy Operations can demonstrate that they are taking reasonable precautions to protect the air quality in Yakima County. (page3)

Response: A presumption that effective air monitoring of fugitive emissions is feasible is fallacious.

Comment #23.A2 Clearly, none of this can be accomplished if the results of the actual application of BMPs are not monitored.

However, instead of incorporating an emissions monitoring regime into this draft policy, and instead of dealing with "the possible health effects of air emissions from dairy operations" which, you have explicitly stated, is the rationale for this exercise, on page B-5 you use the claim that "estimates of odor inventories are not currently possible" (B-5) to avoid instituting a monitoring regime in this proposed policy.

Response: A presumption that effective air monitoring of fugitive emissions is feasible is fallacious.

Comment #23.A3 The health effects of dairy emissions are related to ammonia, hydrogen sulfide, and a number of other constituents, all of which can be monitored very accurately and are monitored very accurately in many other areas of the United States. I would call your attention to Cerex Corporation which manufactures instruments that do this type of monitoring. Their instruments are in use today in many industrial applications monitoring precisely the same constituents that, in dairy emissions, pose a health hazard to the neighbors of the dairy.

Response: Such instruments are useful in determining whether or not a pollutant is present. However, for measuring the rates of fugitive emissions, they are useless.

Comment #23.C1 The draft's claim about the difficulty of measuring odor is being used, in a very transparent way, as a straw man to avoid any other monitoring of dairy emissions.

No Response

Comment #23.C2 This remarkable lack of curiosity about the measurable constituents of dairy odor on the part of an agency that bills itself as a "Regional Clean Air Agency" allows those harmful constituents to be spread to the neighbors of the dairy where they can constitute a health hazard and where they do constitute a trespass on the private property of the neighboring

owners. If these types of emissions occurred in an urban area, no one would tolerate them. In fact, a number of Cerex machines are currently used to monitor oil and chemical plants in close proximity to urban areas--in real time--to insure that harmful emissions are not released in these areas.

No Response

Comment #23.A4 Section B follows this misleading use of odor with a flawed discussion of several BMPs, in each case conveniently omitting those things that would actually control emissions. For example:

- .a The list of BMPs is nothing different than what is done right now and the dairies still produce huge emissions of odorous gases.

Response: YRCAA disagrees.

- .b The list ignores the difference between dry manure and wet manure systems.

Response: YRCAA disagrees.

- .c The BMP that suggests regular removal of manure from the barns completely ignores where that manure goes after removal and what emissions result from that choice of storage.

Response: Agreed.

- .d The windbreak BMP does not acknowledge the time required to grow a tree-line (the most popular form of windbreak in the bread-basket states) or where the windbreak would be located to (a) allow for dilution of air pollutants inside the bam (ventilation) and (b) to cause the exhausted air pollutants from the bam to go somewhere other than the neighbors house.

The only real way to achieve (b) is to capture the gases and shoot them up an exhaust stack. But how do you capture gases from a bam with no walls or an open feedlot? You don't.

Response: Agreed.

- .e The BMP to cover odorous feeds such as silage and fermented feedstuffs is just stupid. You can't ferment something unless it is covered. The silage HAS to be covered to prevent exposure to oxygen so it won't spoil and grow mold.

Response: Disagree.

- .f The BMP to maintain the surface moisture content of drylot pens at or below 26% to minimize odor completely ignores the fact that the worst smelling manure systems are lagoons that are submerged in water 24/7 and also ignores the fact that neither the owner of the facility nor the BMP checker could reliably measure the moisture content of a whole dry-lot pen - but they could easily wander around a find a spot where moisture was less than 26%.

Response: Agreed.

- .g The BMP to cover lagoons or allow a natural crust to form on top of the lagoon surface ignores the fact, already well established, that the dairy industry simply refuses to pay to cover their lagoons and won't pay to cover their lagoon unless they get a government subsidy to do so.

Response: No response.

And on it goes.

Comment #23.C3 The problem here is quite obvious-you have a system of dairy production that is responsible for dangerous emissions that pose a health hazard to people around the dairies. But you also have no political will to fix the problem. So you propose a system of BMPs that is already in use and is already failing to control the problem. And then you set up a straw man to justify not monitoring your new initiative to so you won't have data on how badly it failed. This misguided and unfortunate exercise needs to be called exactly what it is-a sham.

No Response