

Oregon Dairy Air Task Force
Meeting # 2 – January 23, 2008 Meeting Notes

Environmental Protection Agency
805 SW Broadway, Suite 500
Portland, OR 97205

Task Force Members Present:

Dan Bansen, Forest Glen Dairies (periodically by phone)
Jeremiah Baumann, Environment Oregon
Deborah Boone, State Representative (periodically by phone)
Andy Ginsburg, DEQ Administrator (arrived at approx. 11:00)
Lisa Hanson, ODA Deputy Director
Betsy Johnson, State Senator
Kendra Kimbirauskas, Friends of Family Farmers
Dr. Jim Males, OSU Department of Animal Science
Marty Myers, Three Mile Canyon Farms
David Nelson, State Senator (periodically by phone)
Gail Shibley, ODHS Environmental Public Health Administrator (arrived at approx. 3:30)

Task Force Members Absent:

Jackie Dingfelder, State Representative
Dana Kaye, Oregon Chapter American Lung Association
Dr. Jim Moore, OSU Professor Emeritus
Mark Wustenberg, Tillamook County Creamery Association

Presenters:

Larry Elmore, EPA Headquarters, Agriculture and Forestry Air Quality Team (via phone)
Mike Gamroth, OSU Animal Sciences
Gregg Lande, DEQ
Wym Matthews, ODA CAFO Program
Peter Murchie, EPA
Jeffrey Stocum, DEQ

Facilitator: Sam Imperati, Institute *for* Conflict Management

Others in Attendance:

Len Bergstein, Three Mile Canyon Farms
Dave Barrows, Lobbyist, Three Mile Canyon Farms
Carrie Ann Capp, DEQ
Nick Chambers, ODA
David Collier, DEQ Air Quality Division
Melissa Egan, Institute *for* Conflict Management
Natalie Grant, Linfield College
Linda Hayes-Gorman, DEQ
Kathryn Higgs, Oregon Dairy Farmers Association
Jim Krahn, Oregon Dairy Farmers Association
Paul Koprowski, Oregon EPA
Forrist Lytehaause, Health & Wellness Research Institute
Ivan Maluski, Sierra Club, Oregon Chapter
Joel Salter, EPA

8:30 Opening Matters

Sam welcomed everyone. He noted that we had rather slim attendance for this meeting. The Task Force has 15 members, seven are present, and two are on the phone. To pass anything we need eight members in agreement. Sam did not anticipate any votes today, but he wanted to remind folks that that is the landscape.

Joni Hammond, DEQ Interim Deputy Director, thanked and welcomed the group. She wanted folks to know that the DEQ and ODA appreciate everyone's time and commitment to working on these important issues.

Agenda

Sam went over agenda. He explained how it is structured as a crosswalk to the table of contents of the report.

Kendra Kimbirauskas: public comment was listed as 3:45, now it is 3:00, – will there be any flexibility on that should members of the public arrive after 3:00?

Sam Imperati: yes, we will accommodate folks who want to speak to the Task Force.

Discussion of New Work Plan and Report Tour: What it is, is not, and how it works

Sam referred the Task Force to pg. 3 of the draft report, "About this Document." It is designed to give people a contextual background so we can have as close to a common understanding as possible of these very complicated issues. The report is presented, order-wise, consistent with the work plan. It is not designed to be an exhaustive treatment. *It is very important to note that inclusion of materials/science is not to be understood as an endorsement.* It is hyper-linked for ease of navigation. (Put cursor over title in Table of Contents hit control/enter and it will go to that section, or to the web.) There are holes, there is contradictory information, and the entire report must be thoroughly edited.

Sam then guided us through a tour of the document and an example of the process we will go through to create the report. Every section has the same format, as follows:

- 1.F.2 Question
- 1.F.3 Summary of Guest speaker comments
- 1.F.4 Summary of Public Comments
- 1.F.5 Summary of Task Force Advisory Committee Comments (Now disbanded.)
- 1.F.6 Summary of Task Force Comments

Sam referred the Task Force to the Appendix, found on pg. 144. The resources are also hyper-linked. Again, the literature review is neither exhaustive nor endorsed by any members of the Task Force. Author-provided abstracts were simply cut and pasted.

Betsy Johnson: how will presentations be sorted and edited? What if someone wants to include 1,000 pgs, for example?

Sam Imperati: first, they are edited down as they appear in the normal meeting notes. Then, as the report is edited, Sam will facilitate a conversation to decide what goes in the report and where.

Review and Approval of Meeting Notes

Kendra Kimbirauskas had some edits to share with the group. Sam put them up on the screen for everyone to consider and accept or deny.

The minutes as corrected were approved. They will be edited and sent out.

Signing of Charter

Sam asked if there were questions or concerns regarding the Charter. He explained that he triaged feedback from members and synthesized comments into the current document. He requested that we all consider the Work Plan to be a draft, as he does not want to have to go back to change the Charter every time the work plan changes. There were no questions. The Charter was circulated for initials.

Meeting Format

Sam offered some guidance to structure the rest of the meeting. There will be presentations, during which folks should track their questions, comments, and suggestions. There will be time for questions at end of each presentation for clarification only. A more expansive discussion of comments and suggestions should take place during subcommittee meetings later in the afternoon. That is the time where members will talk about how to make this document better, looking at places where there is too much info, too little, biases, etc. Process issues will be explored during the 3:15 agenda item.

Draft Report – Background

Sam explained that, looking at the table of contents, at the last meeting the Task Force covered sections A & B, the background of the bill and our charge as a Task Force. Today, we will attempt to cover quite a bit of ground.

Oregon Dairy Farm Overview

Sam introduced Mike Gamroth, OSU Extension Dairy Specialist. He can be reached at 541-737-3316.

Mike presented a PowerPoint, starting with an historical overview of dairy use and production. He explained that all cows are not the same and pointed out the differences among the breeds and their best use (milk, cheese, other). Dairy is a labor-intensive industry, skilled labor is necessary, operations are continuous, not seasonal, and the product is perishable. Dairy is one of the most stable ag income streams, requiring high investment and commitment. “Designer” dairy products (low fat or high fat) do not need different breeding of animals, as beef would. These products and other factors have expanded the industry in one way, while in another way it has consolidated. When Mike started, there were just over 1350 dairies, now there are about 300 in Oregon. Milk production has increased through better feeding efficiency and genetics, grooming herds to be more efficient. Cheese has evened out some of the urgency of use of the product. Milk production has been moving west over the past 15 years.

At this point, we were joined by David Nelson on the phone.

Trends: fewer but larger herds; more milk production out west; more milk per cow; more specialized equipment and services; business concerns more important than husbandry concerns.

Dairies in Oregon: \$433,000,000 total income

Annual dairy income

- \$3,000 per cow
- \$150 per cow cull cow meat value
- \$100 per cow calf value
- \$100 per cow manure fertilizer value

Dairy Costs -- also about \$3,500!

- \$50% is feeds
- \$10-15% paid labor
- \$8-10% interest (20% inc. payback)
- \$10% rearing replacements

The economic impact of dairy is a function of level and value of processing; sale locally or "exported"; level of complexity in raw production; labor requirements of production and processing.

Morrow County example: \$7.5 million → \$16 million

Other studies show \$1 → \$5-\$7 impact

Facilities:

- Freestall housing – most common here, all concrete, and roof
- Good ventilation a must
- Manure handling, labor efficiency very important
- Open lots common in dry climates
- Heifers will be housed like cows, but have access to pasture

Successful dairies: get cows re-bred; feed cows well, especially early in lactation; make the most of labor through efficient buildings; use records to keep improving.

Mike says good luck to the Task Force! – he feels there's a lot to revise in the draft report.

- There are not 25,000 dairy animals in Umatilla County
- There are none in Harney County
- Pig manure ≠ cow manure
- No two systems are alike
- Messing with one environmental component will affect another; messing with any of them affects economics
- Two-thirds of methane from dairy?
- Antibiotic resistance? (*He is not sure why this is even in the report.*)
- We can't discharge here; strike the reference to NPDES.

Sam opened the floor for questions for clarification.

Kendra Kimbirauskas: Morrow County report, she'd like to see it. Can it be emailed to Sam for distribution? Yes.

Jeremiah Baumann: locally consumed? We're net importers of liquids and net exporter of solids.

Mike Gamroth: correct, we are net importers.

Jeremiah Baumann: can you say more about the shift westward?

Mike Gamroth: cheap land, more open area, need to get big due to economics. A significant number of producers were in southern California, so they were already in the West, and several of them have moved and/or expanded. We have 40+ dairies that are organic, which are less prone to expansion.

Marty Myers: the impact of cheese?

Mike Gamroth: milk follows cheese, production-wise.

Jim Males: are dairies moving closer to feed production?

Mike Gamroth: yes, there's some movement in that direction. Moves to the Mid-west are to make use of distiller's grain, the residue from bio-ethanol production.

Lisa Hanson: can you talk about cow manure to swine manure? Nutrients are different, several things are different, so what does that mean for us?

Mike Gamroth: pigs are monogastric, cows are ruminants. Manure extracted and stored has more potential for methane from ruminants. The point he is trying to make is that there are so many variables, one should not over-generalize.

Peter Murchie: what is the difference between the gases created by the animals? (Burping, farting = "eructation")

Mike Gamroth: cow stomach is an anaerobic digester, which means more belch.

Kendra Kimbirauskas: can you describe the similarities?

Mike Gamroth: methane and nitrogen gases are common emissions, at different rates. H₂S, also. (Hydrogen sulfide)

Jeffrey Stocum: can you speak about the international landscape concerning dairies?

Mike Gamroth: China is developing quite a lot. For a while, we sold cows to China, now they go to Australia and New Zealand. Ultimately, this could be good for us, as they both can out-produce us hands-down. There's a lot of interplay between the countries. The milk prices we are enjoying now are related to the international demand for protein.

Peter Murchie: is there data on feed required per unit of milk?

Mike Gamroth: yes, can't quote it but can find that. Increased efficiency has improved this aspect of production significantly.

Peter Murchie: I'm thinking in terms of the whole cycle.

Jim Males: if nutrition is more efficient, the actual waste per unit of production goes down.

Lisa Hanson: does nutrition impact the nutrients excreted?

Mike Gamroth: yes, it can. For example, if we over-feed or feed on the wrong schedule, then you lose ground on efficiency of absorption.

Marty Myers: are there any stats on what % of the nutrients created are then put back into the dairy operations?

Mike Gamroth: this is what we call whole farm balance. The chief concerns are nitrogen, potassium and phosphorus. Dairies tend to be short on nitrogen, and long on potassium and phosphorus

David Collier: you mentioned ventilation of free stall systems. What kind of things do you think about or attend to for animal health? What else might your concerns be in facility design?

Mike Gamroth: clean, dry bedding is extremely important for the animals' health. Attending to hygiene in general, helps avoid mastitis, infection of the mammary gland. Preventing pneumonia is also a top concern.

Carrie Ann Capp: can you please explain increased production/increased value (total cash sale) but no increase in cow numbers?

Mike Gamroth: It is a function of price and production per cow,

Kendra Kimbirauskas – is there going to be a change in feedstock that we should be anticipating?

Mike Gamroth: thinks it will be minor.

Jim Krahn: milk urea nitrogen (MUN) is a measure of protein status in the animal; in the case of a ruminant, this measure indicates the nitrogen status in the animal. Levels of 8-12 are a healthy range. If over 12, perhaps the animal is consuming too much protein, or is experiencing poorly timed protein delivery. If this happens, the animal will excrete nitrogen.

2007 Oregon CAFO Program Summary

Sam then introduced Wym Matthews, ODA CAFO Program Manager. His presentation will pertain to report section 1.G.

Wym Matthews presented a PowerPoint titled "2007 Oregon CAFO Program Summary," please refer to it on the website. Confined Animal Feeding Operations are defined and regulated under OAR 603-074-0010(3). The number one goal of the CAFO Program is to assist permittees with compliance. There is no prescriptive standard for permits, they are tailored to the individual operation and are performance based.

Challenges and Opportunities:

- Delegation
- Ag. Air Quality regulations

Composting

Manure to Energy - new technologies, need to incorporate into permitting. They are always looking for beneficial uses for “waste,” do not want to throw away any nutrients.

Siting new facilities: there is a public process to issue permits; all have to be on land zoned for agricultural use. Require land use compatibility; will not permit a new site without checking with land use authority.

Sam opened the floor for questions.

Jeremiah Baumann: what does an ODA CAFO permit currently require dairies to do?

Wym Matthews: we ask the facility to record how much manure they generate; how they collect, store, manipulate, and treat it; they have to have zero discharge to the waters of the state. There are minimum required elements (MRE) which need to be met for new facilities. Smaller facilities might just have a tractor and an operator; and thus for permitting, they will have different MREs than larger facilities.

Gregg Lande: if dairies change their manure management system, is it ok as long as they still have zero output? Or, do they need a new permit?

Wym Matthews: they have to submit changes to their plans to make sure there are no violations of permit conditions. Plans are a permit condition, each piece of plan is part of it.

Kendra Kimbirauskas: does ODA have engineers to help change manure systems? Or is that outside engineers? How does that work?

Wym Matthews: we work with outside contractors. The department looks at proposals and assesses if they are reasonable and doable. We allow a year to run the system to see if it works, which is referred to as a conditional approval. We keep track of these conditional approvals and re-assess at the appropriate time.

Lisa Hanson: what are conditions that would necessitate an individual permit rather than general?

Wym Matthews: in general, we use individual permits when operations need more monitoring. Some typical reasons for more monitoring are if they want to employ technology that is not proven, if they are located in an area with other environmental concerns, or if the facility has a history of non-compliance and will likely take more than a reasonable amount of time to get up to speed.

Andy Ginsburg: what type of record keeping and reporting are permittees obliged to do and what does ODA do to inspect and monitor conditions?

Wym Matthews: a permit requires monitoring of soils once during life of permit, which is currently five years. We ask for a variety of measurements on manure, as well as soil and surface water quality. We ask operations to keep records daily. Records are a permit condition; recent inspections have resulted in finding there are a fair amount of registrants that do not do adequate record keeping.

Jim Krahn: said he would be happy to provide a typical Animal Waste Management Plan (AWMP) so folks can see it. He asked Wym to compare our process to other states.

Wym Matthews: we can come up with this data and give it to you. Washington State registers about 10% of its dairies to their CAFO NPDE Permit. There will be several differences, partly due to legislation.

Marty Myers: please describe our (Three Mile Canyon) reporting process.

Wym Matthews: they have about 43,000 crop acres, and are obliged to report on every acre what was applied (manure/water), crop yield, soil test for remaining nutrients, as well as nutrient removal that is processed, composted, exported. Crops are the engine we are managing these nutrient removal. The data are used to plan cropping strategies for the future; want to get real-time data for what happens each year.

Jeremiah Baumann: is this directed by federal or state laws?

Wym Matthews: both.

Lisa Hanson: when EPA rules came into effect re: large and medium CAFOs, it made sense at the time to bring everyone under the same set of regulations. As we go into re-upping, do we put everyone under the same permit, or do we go to a two permit system? This is one challenge the ODA is currently dealing with.

Andy Ginsburg: (asking Marty Myers) all that data you submit to ODA, do you use the data or is the reporting more than needed to make best use of facility?

Marty Myers: our customers require the information, so it is all necessary and utilized. It helps with food safety issues and transparency.

Wym Matthews: an increasing number of permittees are finding value in the data collection and recording. People are trying to find value in this permit in all systems they employ to satisfy permit requirements.

Joel Salter: regarding permittees nutrient management plan or design of their waste management system, if all aspects are not utilized, is that a violation?

Wym Matthews – from a design perspective, if the approved system is modified or not maintained, then yes, that is a violation. For clarity, note that the ODA does not design systems, we have no engineers on staff, but facilities requiring an engineered design must be stamped by a licensed engineer.

Carrie Ann Capp: would like a “permitted operations” definition, please. Are there cows that were not accounting for?

Wym Matthews: all dairies in Oregon are permitted, which is not the case in other states. Every dairy that milks cows does have a permit. Not all beef cattle would; if they are not confined, they do not fall under the requirement for needing a permit.

Kendra Kimbirauskas: is it possible to get from you where dairy cattle are and what kind of system they are in?

Wym Matthews: yes, I think so. There are a few places to get data (census of USDA and ODA). The census will be higher because if you have one dairy cow just for yourself, you are called a dairy, but you will not be permitted. As for the type of system in which they are housed, in a broad sense, geographically, this info is in the report.

Betsy Johnson: Kendra, are you trying to see which is the best, or to what end do you want this?

Kendra Kimbirauskas – just trying to wrap my head around what we are working with, where emissions come from, etc.

Lisa Hanson: see page 24 of the draft report, some of this info is there.

Air Quality Basics

Sam introduced Gregg Lande, DEQ Senior Air Quality Planner. Greg covered a lot of ground in his PowerPoint titled “Air Quality Basics,” which will be posed on the web. His presentation concerns items I.H – I.S on the agenda/ report table of contents.

The types of dairy air emission are:

- Ammonia (NH₃)
- Hydrogen Sulfide (H₂S)
- Methane (CH₄)
- Volatile Organic Compounds (VOC)
- Nitrogen Oxides (NO_x)
- Particulate Matter (PM₁₀ and PM_{2.5})
- Odors

The National Ambient Air Quality Standards (NAAQS) were developed by the EPA. Gregg noted that “it is unlikely that dairy emission would be a significant contributor to these violations.”

Sam opened the floor for questions of clarification only.

Andy Ginsburg: where there have been violations of national ambient air quality standards, it has tended to be in urban areas. In order for a dairy to contribute to that problem, it would have to be near by. In the long run, this is where the Clean Air Act will impact dairies, will be in areas where they have the potential to impact visibility/haze.

Kendra Kimbirauskas: slide 16 – what would happen if you remove ammonia from the equation?

Gregg Lande: good question. Stay tuned, studies are being done on that.

Andy Ginsburg: there may be no impact at all; it depends on the relative levels and reactions of ammonia and other pollutants in the atmosphere. Scientifically, it is very complicated.

Betsy Johnson: how do you figure air from China and the global winds (a.k.a. “background”).

Gregg Lande: when it comes to developing a community-wide air quality plan, it can be difficult. However, to give you confidence that we can do this, we base it on our approach to the NAAQS. We look at all the sources in an air shed, taking into account background.

Betsy Johnson: in balancing how a community would respond, how do you go about making the judgment about what reductions in what venue give you the desired results? How do prevent disproportionate burdens?

Gregg Lande: statistical techniques do help.

Andy Ginsburg: policy piece, the rule the Oregon Environmental Quality Commission adopted is that any plan must ensure that reductions from each type of source are proportional to the emissions from that type of source. It is a ten-year plan, there are checks and balances along the way. It is intended to be responsive to change. Portland is the first area to start developing such a plan. We expect to start within 2 years.

Peter Murchie: it is important to understand the effectiveness of control strategies on source type, to get most bang for buck on compliance.

Andy Ginsburg: we continue to monitor and track as we go.

Peter Murchie: there are sites that we use nationally to estimate backgrounds for national models, which in turn are used by DEQ. These are updated every few years for accuracy.

Andy Ginsburg: it is completely dependent on the pollutant as how much global emissions impact on the background levels.

Andy Ginsburg: referred the group to page 18. He noted that it appears unbalanced or biased because the report only mentions one group's opinion on the EPA's proposal. The final report will include a more representative slice of opinions.

Betsy Johnson: would the proposed changes to the federal EPRCA/CERCLA reporting rules now apply to digesters or to just how farms deal with animal waste?

Gregg Lande: unsure at this point, but his understanding is there is a list of criteria/filters to determine who has to report and who is exempt.

Lunch Break

After lunch Mr. Lande continued, picking up with report section I.M.6, Air Quality Permitting, pg 19 of his presentation.

Andy Ginsburg: ammonia does not trigger Title V or PSD permitting, particulate or methanol do. You only count point source. Emissions from a field, an open barn do not, but from a point, a digester for example, do. Each permit type have different emission standards. EPA is still trying to quantify emissions, so the jury is still out on how it will impact dairies.

Peter Murchie: the study itself will not define fugitive or non-fugitive. The Clean Air Act test is the capability of capturing emissions; not the fact that emissions are currently vented through a stack.

Marty Myers: what he is hearing is that dairies are not subject to these rules as of today.

Andy Ginsburg: DEQ's stance is that we cannot make that determination at this point.

Peter Murchie: the burden is not on DEQ or EPA, the burden is on the operation itself.

Andy Ginsburg: the way the law is structured, it is up to individual dairies to tell us if you qualify. Given the fact that ammonia and fugitive emissions do not count, it is unlikely, even for dairies as big as Threemile Canyon, will be major sources of criteria pollutants (e.g. VOC or particulate.). However, it is up to the dairy to make that determination.

Marty Myers: re: enclosure of barns. Is the EPA taking into account animal welfare programs?

Peter Murchie: from everything he knows, they are considering those when looking at feasibility to operations to capture emissions.

Andy Ginsburg: we need to remember methanol, because the Title V major source threshold is lower for hazardous air pollutants (10 tons/yr) than criteria pollutants (100 tons/yr). EPA hasn't adopted emissions standards for CAFOs but that does not mean they would not be considered a major source if they emit over 10 tons of methanol. What we are talking about is triggering the requirement of the potential to emit based on the individual operation's process. It is possible that a dairy in Oregon is emitting over 10 tons.

Lisa Hanson: EPA and DEQ do not know if dairies are emitting, and it is the producer's responsibility to know, but how are they to know?

Peter Murchie: let's table this for now, will discuss later.

Moving on to "What does an air quality permit do?"

Andy Ginsburg: explained that one can think of a Title V permit as a place to put all air quality requirements that pertain to the dairy's operation. Getting a Title V does not impose any new requirements to reduce emissions, but it could require additional monitoring to ensure compliance with any otherwise applicable limits. On the other hand, a PSD construction permit is designed to ensure that a new major source does not create air quality problems. A major new PSD source (over 250 tons/yr of a criteria pollutant) has to install Best Available Control Technology.

Emissions Inventory

Sam introduced Jeff Stocum of the DEQ Air Quality Division. He presented a PowerPoint titled "Emissions Inventory." Please see the web site for the full presentation.

Jeff explained that dairies are one of approximately 160 source categories DEQ currently looks at for the Emission Inventory. The calculation method they currently use is:

$$\text{number of cows} \times \text{pollutant emission factor (EF)} = \text{emissions}$$

Everyone is aware that there are significant shortcomings with this equation. It is a "one size fits all" approach and there are no environmental influences considered. Ideally, we will eventually arrive at a calculation method that can capture nuances such as structures of the buildings, manure handling, type of feed, cow age, type of animal, and living microbial systems. Concerning emissions factors, the EPA has no official guidance to offer and there is no nationally consistent approach. What we do have are rather wide ranges for EFs, e.g. the range

for Ammonia is 8.45 – 97 kg/hd-yr, which indicates significant uncertainty in the data. To create the inventory, Jeff had to choose values for the emission categories. (Please see slide 11 for the studies used to make these choices.)

Marty Myers: wonders what system was assumed for Morrow County

Peter Murchie: to clarify, Jeff used ODA's AWMP data provided to DEQ by Wym on processes used for permitting. For Morrow, that would be a combination of flush/scrape. Thus, the data is an average of those two emission factor calculations.

Andy Ginsburg: this is a pivotal point. DEQ does not feel that these numbers can be applied to an individual dairy. They are useful to consider ammonia emissions in aggregate, but do not take into account site specific factors. We should consider in the final report if we should include county data or aggregate to a higher level. If you see other instances like this in the report, please make that comment. As we develop a more sophisticated model, we will be able to come up with better data without as much uncertainty as we currently have.

Betsy Johnson: thinks we should footnote these things.

Peter Murchie: to follow up on Senator Johnson's comment, a lot of the caveats that are being discussed are in the report, but not at each mention in the report.

Andy Ginsburg: gave an example of this type of language in the report, asked Jeffrey to indicate this somehow with each chart.

Peter Murchie: perhaps an Appendix vetting the currently understood possible range of each factor compared to the chosen factor would be helpful.

Jim Males: concerning slide 14, in the row with BIOGENIC, he is troubled that there is a dash, which tells us nothing. Rice production and wetlands are biogenic sources which way outpace others.

Jeff Stocum: the dash means one of two things, 1) it is there but not quantified or 2) it does not exist or exists at negligible levels.

Peter Murchie: perhaps we could clarify which dash means what.

Lisa Hanson: where do we account for beef feed lots and other?

Andy Ginsburg: it is in the "Area" (which means non-point source) and Dairy is broken out for the purpose of this group. Normal presentation of this table does not have dairy separated.

Sam Imperati: we encourage folks to submit data to make our process and product better.

Sam Imperati: to clarify the chart on p. 14, all data is generated by the same process. The data we have for dairy is newer than the rest.

Andy Ginsburg: right now we just have a per cow factor, we need a model that will get us a more accurate number.

At this point, Larry Elmore, a policy and technical expert with EPA Headquarters, Agriculture and Forestry Air Quality Team, joined us via telephone. He will help Peter Murchie as needed during his presentation.

Marty Myers: thinks we should have a column of all other pollutants that DEQ is charged with looking at.

Andy Ginsburg: wants to push back on that because our standards are pollutant specific, so all this extra info is not relevant.

Marty Myers: thinks we have to understand how to compare. We are focusing in one industry here, we need to be able to compare with all other industries.

Andy Ginsburg: from air quality standpoint, we need to look at each pollutant separately and the air quality problems it contributes to. He understands what Marty is getting at, but we can put this into perspective in another way.

Sam Imperati: check in on process. Asks to please table this topic until the appropriate time.

Joel Salter: if dairies are a subsection of Area, let's indicate that on the table with a footnote. Also, are there specific emissions factors for each of the other 160 categories?

Andy Ginsburg: the take-aways from Jeff's presentation: we do not have good data or a good process model yet. Nevertheless, DEQ has to calculate emissions. Useful for broader planning projects. We appreciate the feedback on how to clearly present this material and will get on adding the footnotes.

National Air Emissions Monitoring Study

Sam introduced Peter Murchie of the EPA. He gave us an overview of the National Air Emissions Monitoring Study (NAEMS) out of Purdue University, which is commonly referred to as the "EPA study." His PowerPoint will also be put on the web.

Peter explained that they worked up a consent agreement to be part of this national study. Participants were given a covenant not to sue during the study. Non-participants have no covenant and thus are liable for violations. Peter reminded the Task Force that the responsibility is on the businesses, not agencies, for finding out whether or not they need permits. The covenant will be in effect until after the close of the study, so operations covered by any new regulations will have a chance to make necessary upgrades. Also, he added that he is sorry to say that given the timeline of the Dairy Task Force, the data from the NAEMS study will not be available for inclusion.

Betsy Johnson: how did you know the universe of possible participants?

Peter Murchie: targeted AFO sectors were swine; poultry (layers, broilers, turkey); and dairy.

Andy Ginsburg: Peter laid out legal framework of what is possible. However, from a practical standpoint, the EPA is not likely to go back to look for violators, especially since the data was not there.

Peter Murchie: study itself does not touch on any other media (e.g. water) but participants need to be compliant with all other applicable standards.

Andy Ginsburg: one thing the Task Force can do is recommend additional research. Given that the EPA study does not include any Oregon dairies, and the other west coast dairies may not be representative, further research on sites in Oregon might be something to consider.

Peter Murchie: the position of the EPA is that this study will be representative and that they will not recommend further research. They have designed this with the intention to be nationally applicable.

Forrist Lytehaause: are the research protocols available?

Peter Murchie: yes.

Larry Elmore: there is some info on the website and then once everything is truly finalized, it will be made available.

Andy Ginsburg: to Larry, it will be nice to see the data as it comes out, and he wonders what they can do with it before the final guidance is developed. He thinks it may serve as a guide in some way, for example, where emissions are actually coming from on the farm, but would like to know EPA's perspective.

Larry Elmore: agrees. We are discussing this, and the best he can say right now is stay tuned.

Peter Murchie to Larry: can you tell the Task Force about a process-based model for emissions as opposed to any other kind of model?

Larry Elmore: to him, this means looking at input factors and how they compare to output. For example, nitrogen: how does it go in, in what forms and from what sources, and then how does it come out. California has been working on a processed based model for dairies. We envision a better methodology will come out of this, not likely an exhaustive or perfect, but certainly better.

David Collier: what is the output of this study that the EPA hopes to arrive at and when will it be issued?

Peter Murchie: the intent of EPA is to develop a processed based approach for emissions, instead of the current average emissions per animal. Scheduled for 2011.

Andy Ginsburg: so, eventually, an individual company or facility will be able to use this methodology, input their numbers, and come up with an answer as to whether or not they need a Title V permit?

Peter Murchie: yes, that's the intent.

Jim Krahn: sits on the oversight committee and yes, this will eventually be a computer program that will produce what you said.

Andy Ginsburg: another scenario he is trying to capture is if there is a new BMP that comes out that shows marked reduction in ammonia, for example, will the model be flexible enough to include such additional factors?

Peter Murchie: yes.

Public Comment

Forrist Lytehaause is the Research Director of the Health and Wellness Institute. He speaks to us today as a private citizen. Mr. Lytehaause read some comments, including some interesting research on beneficial microbes being used on dairies. He will email Sam and the comments will be distributed.

Process Issues and Advisory Committee Process Charge

Sam lead the group in a discussion, saying this is the time to consider what we would like to see done with this report, what are the holes, etc.

Betsy Johnson: we were tasked with breaking down a daunting issue with aggressive timelines, but right now, she does not know what the subcommittee charge is.

Andy Ginsburg: is lost on the purpose of Subcommittees, since he was not at last meeting. May we please review?

Kendra Kimbirauskas: there is so much out there, and staff has limited capacity, have already been tasked with so much, the Subcommittees were formed with the intention to take on specific work.

Andy Ginsburg: since we now have the report, then maybe submitting changes/additions on the draft is the best use of our time.

Jeremiah Baumann: agrees with Andy.

Sam Imperati: one advantage of Subcommittees is balance. If you have a representative sample on the Subcommittees, then it increases chances of efficiency for the larger group.

Betsy Johnson: is in favor of limiting the scope, i.e., not focusing on the national or international aspects of this issue, rather keeping the focus on Oregon. She would like to abandon subcommittees and work as a whole.

Betsy Johnson: to Mr. Lytehaause, she appreciated his comments and would like to hear more, see the paper, and know about what research he has done. She could be interested in developing a committee to look at alternative technologies

Andy Ginsburg: given our timeline and charter, we may want to stay on a more survey level.

Sam Imperati: a tool facilitators use at times is the “one-text discussion draft.” There is more than one way to do it, here are a few options: variation A - we have one document, track changes, committee looks at edits and decides as a whole; variation B – the facilitator assimilates all edits and presents the new draft document to the committee; variation C - each subcommittee is given a chunk of text to finalize through the track change/editorial process.

Betsy Johnson: likes version B, the “Facilitator Mashes” option. She would hate to see us get bogged down in word-smithing.

Lisa Hanson: there is a lot of expertise outside the agencies that we need to take advantage of.

Kendra Kimbirauskas: is concerned about burden on Carrie Ann and how this editorial process will be conducted.

Sam Imperati: offered a process for this. He will send out a template for the format that is desired for feedback.

Andy Ginsburg: suggest we go with Peter’s idea of creating a new first draft; after next draft, then we’ll move to the redline. Thinks editorial comments should be in a few different forms: comment on format, missing content, and incorrect content. Andy offered that he thinks studies should be summarized in draft but kept in an appendix.

Sam Imperati: concerning the research, he would like it stated plainly, who did what, what did they study, what are their conclusions. He’d like a 3 or 4 sentence summary.

Kendra Kimbirauskas: notices that we don’t have a public health expert, thinks that should be included

Sam Imperati: the raw data that this group is going to consider needs to be in the report by the end of 3-18-08 meeting.

Andy Ginsburg: thinks we should consider what issues we need studies about. There is a lot of research, but questions if this Task Force really needs to understand every study to make conclusions?

Jeremiah Baumann: good point. Some things are generally recognized as established, some things are recognized as unknown.

Andy Ginsburg: does not want to focus on these studies as the heart of this report, but instead what we learn from them. This will impact the format.

Gail Shibley: agrees with Andy, those topics ought to be dealt with, but it does not have to go on for pages. She wants to roughly identify what do we know, where is there disagreement, and what are possible approaches from x,y,z standpoints (epidemiological, etc.). This is to let policymakers know where the “soft spots” are in terms of knowledge.

Betsy Johnson: trying to figure out why we do not build in flexibility for ourselves concerning why we are not waiting for the EPA data (the Purdue study).

Andy Ginsburg: can speak to this point. Folks felt that punting to 2012 was not necessary, feels there are some things we can recommend, that some type of regulation can come out of this group.

Peter Murchie: there are things that can be put in place by examining the EPA/Purdue protocols. When methodologies are available, Oregon will be ready to hit the ground running to implement any new BMPs.

Andy Ginsburg: industry is coming out with voluntary BMPs.

Jeremiah Baumann: wanted to emphasize that we include Andy Ginsburg's suggestions, that we include summaries

Andy Ginsburg: referred us to page 38 for an example of what he is looking for in summaries.

Sam Imperati: we have very little time before our next meeting. Therefore, folks need to submit information to fill in the holes. Sam suggested the following process:

- Sam will send template for submitting additional research or for feedback on research currently found in the report. If folks know that there are contrary studies or reports, please include them.
- Template will be sent back to Sam by 2/6/08 – earlier if possible! He wants any red-line/track changes comments.
- Sam will synthesize comments and edits; if he cannot, with intellectual honesty, blend all comments, he will note the competing versions, this will be done by 2/12/08.

For Task Force Meeting 3, we will have three presenters. The afternoon will be spent going over this report. After which, the committee will probably have another 2 weeks.

As a result of the Task Force discussions, there will be no subcommittees and the Charter is amended by these notes.

Public Comment, part II

Sam asked if there was any further public comment.

Ivan Maluski of the Oregon Chapter of the Sierra Club spoke. He will email his comments to Sam, which will also be distributed.

Closing Comments, Next Meeting Preview, and Evaluations

Task Force members were asked to please fill out an evaluation form.

No slack on the February 6, 2008 deadline for feedback!!

To Staff: please check on accuracy of presentation made today in comparison with what is in report. In addition, footnotes will be added.

Respectfully submitted by the ICM Facilitation Team.

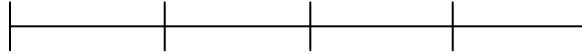
Please see next page for Meeting Evaluation Summary

Meeting Evaluation

1. OVERALL MEETING QUALITY: Poor Fair Good Very Good Excellent
RESPONSES: 2 4

Too Slow Just Right Too Fast

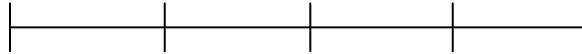
2. PACING:



RESPONSES: 1 5

Poor 3 Excellent

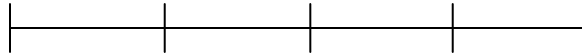
3. PRESENTATIONS:



RESPONSES: 4 3 1

Poor 3 Excellent

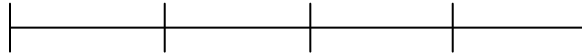
4. MATERIALS/DOCUMENTS:



RESPONSES: 1 5 2

Poor 3 Excellent

5. DISCUSSION:



RESPONSES: 2 2 3