

Advisory Committee on Mercury Pollution

Meeting #85: Thursday, September 25, 2008

Time: 9:00 am to 2:30 pm

Location: Conference Room, Laundry Building, Waterbury State Complex
Waterbury, Vermont

MINUTES

Members Present:

Michael Bender, Abenaki Self-Help Association, Inc.
John Berino, Vermont Association of Hospitals and Healthcare Systems (Fletcher Allen)
Gary Gulka, Vermont Agency of Natural Resources, Environmental Assistance Office
Jennifer Holliday, Chittenden Solid Waste Management District
Neil Kamman, Vermont Agency of Natural Resources, Water Quality Division
Ruma Kohli, Chemical Management Program Manager, IBM
Representative Cynthia Martin, Vermont State Representative
Senator Richard McCormack, Vermont State Senate

Guests Present:

Lisa Carlson, Consumer
Doug Elliott, Vermont Agency of Natural Resources, Air Division
Matthew Levin, Vermonters for a Clean Environment
Lynn Metcalf, Vermont Agency of Natural Resources, Waste Management Division
Anthony Otis, Public Policy Attorney, Northeast Delta Dental
Peter Taylor, Vermont State Dental Society
Karen Knaebel, Vermont Agency of Natural Resources, Environmental Assistance Office

The Committee members and interested parties gathered in the conference room of the Laundry Building at the Waterbury State Complex. Neil Kamman called the meeting to order.

Meeting of Advisory Committee on Mercury Pollution (ACMP)

Agenda Item 1

Review draft minutes the August 28th meeting

The minutes of August 28 were approved with no changes.

Agenda Item 2

Committee member concerns / public comments

Gary Gulka advised the Committee that the bounty on auto switches collected under the ELVS program had been increased from \$1.00 to \$4.00 for hood and trunk switches and from \$3.00 to \$6.00 for ABS switches. John Berino asked how auto dismantlers in Vermont would be notified about the increased reimbursement for mercury auto switches. Gary Gulka indicated that his office would be sending a letter and it appeared that the national switch removal program would be sending a mailer as well.

John Berino mentioned that he had seen a video of mercury vapor release from amalgam fillings that was produced by Bowling Green University. Some members were aware of this video. Karen Knaebel said that she would make it available to Committee members.

Jen Holliday mentioned that the North American Hazardous Materials Management Association's (NAHMMA) annual meeting will be held in Burlington starting on October 15. This association includes local, municipal, and other governmental hazardous waste management programs. As host state, Ms. Holliday has been active in the planning of this meeting which will include mercury sessions. She is moderating a panel discussion on thermostats. Michael Bender is participating in this panel. Karen Knaebel will be presenting on retail collection programs for fluorescent lamps.

Neil Kamman indicated that he will be starting an intergovernmental detail with EPA, in which 60% of his time will be dedicated to this detail. He said that he may not be able to make all of the meetings and has discussed this with Jen Holliday, who will chair meetings if necessary during any absences.

Agenda Item 3

Discussion of crematory/mercury emissions – Doug Elliott, DEC

Doug Elliott, Chief of the Air Permitting Section, Air Pollution Control Division, DEC, provided the Committee with an overview of the regulation of crematoria in Vermont.

Human and animal crematoria are permitted by DEC – the main focus of permitting is to control particulate emissions through proper design of combustion chambers with specified combustion temperatures of at least 1600 degrees Fahrenheit to assure full and complete combustion.

The levels of mercury emissions from these units are below regulatory thresholds for Vermont's air toxics rules and, therefore, emissions controls for mercury are not required. There are 11 permitted crematoria and there may be additional units, pre-dating the effective date of the rules. No units have pollution control equipment installed.

John Berino asked how the contaminant levels are set in the air toxics rules. Mr. Elliott indicated that levels are set by the Vermont Department of Health (VDH). There were recent revisions to the rules that modified allowable contaminant levels. Elemental mercury levels were cut in half. Alkylated mercury levels were made less restrictive.

Neil Kamman asked if the contaminant levels in the rule were ambient air quality levels to protect human health. Mr. Elliott indicated that the permissible levels are solely based on human

health and not on environmental impacts. Mr. Elliott said that his program reviews each individual source and no individual crematory exceeds these levels.

Mr. Kamman asked if the Air Program looks at dilution and mixing in the ambient air. Mr. Elliott indicated that VDH sets a limit based on micrograms per cubic meter. A formula is then applied to arrive at a limit of pounds per eight-hour period. No crematoria exceed the mercury limit of .02 pounds per eight hours for elemental or alkylated forms of mercury.

Mr. Elliott indicated that it is estimated that 3.2 grams of mercury is emitted for each cremation cycle. In the worst case, a crematory emits 2.5 pounds per year of mercury compounds (0.2 pounds per eight hours equates to 22 pounds per year).

Mr. Kamman asked how crematory mercury emissions rank among other sources of mercury emissions in the state. Mr. Elliott provided the following estimate of releases in order of descending emissions from the most recent Vermont mercury emissions inventory:

Motor vehicles	0.5 – 66 pounds
Residential heating	56 pounds
Industrial fuel burning	12.9 pounds
Crematoria	8-18 pounds

Mr. Elliott indicated that crematoria emissions rank fairly high as a category source, ahead of releases from fluorescent lamps, dental offices, and mercury auto switches.

Jen Holliday asked how frequently crematoria emissions are monitored. Mr. Elliott said that they are only tested once for particulates in the emission, since there are no add-on pollution control devices that need testing.

Neil Kamman asked if there is any information related to accumulation of mercury on stack walls of these units and exceedances of standards if this mercury were to be released at some point. Mr. Elliott indicated that there is no information on this and he thought that at higher temperatures during the combustion cycle, the mercury would potentially be re-released.

Matt Levine said that there are estimates of about 2500 cremations per year in Vermont which would equate to 20 to 25 lbs of potential mercury release from stacks.

Neil Kamman asked Mr. Elliott if he saw a pathway to regulation of mercury releases from crematoria due to environmental concerns of bioaccumulation. Mr. Elliott indicated that the air toxics rules would not be the mechanism for regulating this, but that statutory authority may exist to do so. He said that it would probably have to be an emissions rule specific to mercury.

Mr. Kamman said that he felt it would be possible that crematoria could form hot spots of mercury contamination in the local environment.

Mr. Elliott was asked whether residential locations of crematoria would be considered as a part of regulation. He indicated that location would not factor in to regulation of the crematory.

Michael Bender asked if Vermont's Air Program has any reduction strategies for air contaminants in general. Mr. Elliott indicated that there are not any state-specific strategies. However, there have been some national strategies like the Clean Air Mercury Rule which affects utilities. Vermont is generally below threshold contaminant levels regulated on the national level.

Mr. Bender asked whether there were any crematory emissions discussions at the level of the New England Governors and Eastern Canadian Premiers Mercury Task Force, where virtual elimination of mercury is a stated goal. Gary Gulka indicated that the Task Force has not discussed controls on crematory emissions.

Mr. Bender said that the Minnesota Pollution Control Agency has developed mercury reduction goals and abatement options and that he would provide this information to Mr. Elliott for review.

Mr. Bender said that in the coming years there will be an increasing level of mercury emissions from crematoria due to the increasing number of cremations in Vermont as well as population demographics (greater number of cremations with dental amalgam fillings).

Mr. Kamman said that Minnesota identifies sector emissions reductions of mercury to 32 pounds per year as part of their mercury TMDL plan by 2025. By 2018, emissions reductions are estimated to be reduced to 63 pounds per year. The plan calls for studying emissions trends and reduction options with specific mention of studying the social acceptability of abatement options.

There was a question on the rate of new crematoria being established in Vermont. It was mentioned that ten years ago there were four or five crematoria. According to Lisa Carlson, the largest facility is Ready Funeral Service in Essex with an estimated 800 cremations.

John Berino felt that more research is needed on crematoria emissions. There was discussion that the true cost of dental amalgam would need to account for mercury pollution caused by its use. There was a suggestion that imposing fees on the use of dental amalgam would level the cost with composite resins and pay for pollution control equipment on crematoria.

Agenda Item 4

Follow up discussion of dental insurance

Neil Kamman posed the question as to whether the Committee wished to pursue a recommendation for greater equity in cost between dental amalgam and composite resins through dental insurance plans.

Michael Bender referenced the email response from Northeast Delta Dental that indicated that composite resin coverage for posterior molars will add two percent to premium costs. Mr. Bender questioned how many people this would affect.

The information from the e-mail response to the Committee was outlined on the board and the following conclusions were discussed:

- Approximately 63% of population has either no coverage or Medicaid coverage.
- 37% of population has dental coverage – of that about 57% or 135,000 have Delta Dental and the other 43% is insured by other companies.
- Of the Delta Dental insureds (representing approximately 21% of Vermont’s population) slightly over half are self-funded and therefore not subject to state mandates and the other slightly less than half or (68,300 insureds) would be subject to state mandates.
- Of the approximate 68,300 Delta insureds, only 700 have coverage for composites for (posterior) back teeth while 67,600 have no coverage for composites for back teeth. It was noted that this limitation is not the case for front teeth.
- It was noted that while there was information for approximately 21% of Vermont’s population insured for dental under Delta Dental, 16% of the population who have dental insurance are insured by other companies.
- Peter Taylor said that he believed that Medicaid will cover either amalgam or composite with a differential fee. Mr. Kamman asked if there is no distinction under Medicaid on the type of filling material covered. Mr. Taylor said he believed there was no distinction.
- Mr. Kamman suggested that the Committee needs to clarify Medicaid coverage and he thought that there may be an issue of patient awareness of the filling options. Mr. Bender said that there is a difference between access versus awareness.
- Peter Taylor said that many of the large employers have self-funded dental plans and thought that most small employers are choosing the least expensive dental plan.
- The remaining population (63%) is either insured under Medicaid or has no dental insurance. The Committee felt it would be important to gain a clearer understanding of the coverage afforded by Medicaid for both amalgam vs. composite to further evaluate insurance coverage as a whole. Neil Kamman told the Committee that he would send a letter to the Medicaid Program with the Committee’s questions and the response would be discussed at the next meeting.
- Cynthia Martin asked whether the Committee should look beyond Northeast Delta Dental insured coverage. The largest insurers in Vermont are as follows: Delta Dental (66,600), MetLife (17,900) and Connecticut General Life (6,340).
- Ms. Knaebel questioned whether the Committee should consider pursuing the equity of amalgam and composite coverage for 67,000 people in Vermont’s population given the volume of bills introduced in the Legislature and how many are not taken up. Matt Levine suggested that the Legislature takes up issues that affect far less than 67,000 people.
- Mr. Kamman polled the Committee to ascertain the level of interest in continuing to pursue the insurance equity issue. There was a consensus of the Committee to continue.

Agenda Item 5

Review of Vermont State Dental Society dental brochure

Peter Taylor said that over 300 laminated dental posters were mailed to Vermont dentists, including non-members of the Dental Society. The letter to dentists accompanying the poster suggested that it be displayed in patient waiting areas. The same printed material was also prepared as a tri-fold brochure that has been made available on the VSDS web site for downloading and printing by any dental office that wished to have the brochure available to patients. He said that there may need to be changes to this material next year when the FDA comes out with additional findings.

Mr. Taylor said that the brochure and poster focus only on amalgam and composites to avoid distraction by containing too much information about other filling materials. He said that he hoped that some of the Committee's concerns have been addressed in this document and he believed it would facilitate dialogue between patients and dentists. He disagreed with statements that dentists cannot be convinced to reduce the use of amalgam. The document does not endorse one or the other as the filling material of choice.

Senator McCormack said that the brochure does not mention that one advantage of composites is that they do not contain mercury. Mr. Taylor also said that the committee that developed this brochure did not discuss this as an advantage. Also under the environmental section there is no mention of crematoria. Peter Taylor said that crematoria emissions of mercury are mentioned elsewhere in the brochure and that repetition was avoided in the brochure due to space limitations.

Mr. Kamman remarked that he appreciated the efforts of the Dental Society in meeting the Committee halfway.

Jen Holliday asked if dental offices can be surveyed to determine the level of use of the poster and brochures.

Representative Martin asked if there are other avenues for dissemination of this information such as schools.

Matt Levine said that although the brochure is very attractive, it does not include specific language that was requested by the ACMP subcommittee that reviewed the draft document and contains language that the subcommittee criticized.

Lisa Carlson said that the document contained false and contradictory language. The document makes a false statement that amalgam contains very low amounts of mercury. It does not acknowledge localized allergic reactions and severe neurological reactions. There is also the omission of precautions for young children and the document only hints at precautions for pregnant women.

Mr. Bender said that the environmental section is deceptive by not mentioning mercury disposal concerns and crematory emissions. The document also lacks information regarding the recent actions and statements by FDA in their fact sheet on dental amalgam. Amalgam is the largest use of mercury in Vermont and there is no mention of this. There is no mention of the neurotoxic effects of mercury. Mr. Bender said that national figures on mercury use in the dental sector, although somewhat dated, do not show a decline in use. He felt that the Committee should not spend more time reviewing and commenting on this document and urged the Committee to re-read the Committee recommendations in the previous report to the Legislature.

Senator McCormack said that the Committee should not tell people what to say if they do not believe it. The dental community has a different take on this issue. He would not call this document deceptive – this is accurate from the perspective of VSDS. No man should be a judge

in his own case. They have stated their case. This should be considered a good try; unfortunately the task has not been accomplished. The State may have to do its own document. It is not reasonable for VSDS to do this – it is the Committee’s agenda, not theirs.

Peter Taylor stated that this brochure will be visible and he believed it would encourage dialogue between doctor and patient. He thanked the Committee for its input on the document.

Agenda Item 6

Mercury program updates and committee appointment updates

Karen Knaebel provided an update on implementation of thermostat legislation. The department is expecting plans from thermostat original equipment manufacturers by October 1. There are approximately eight manufacturers subject to Vermont’s requirements. The Thermostat Recycling Corporation will be submitting a plan on behalf of Honeywell, White Rogers and GE, which represent 97% of the branded mercury thermostats in circulation. It is believed that most of the other manufacturers may join TRC and come in under their plan. The State of Maine is still negotiating with TRC on its plan in Maine. Ms. Knaebel said that any manufacturer not submitting a plan by October 1, 2008 will be in violation of state law and will receive a Notice of Alleged Violation (NOAV).

Ms. Knaebel reported on the button cell battery collection program at pharmacies, nursing homes, and hearing aid dispenser locations. She said that 89 pounds of batteries were collected in the first year; however, the program needs more public visibility. She has asked for help from municipal solid waste districts and will be looking for other ways to publicize the program.

Ms. Knaebel mentioned the Healthy Communities grant that has been received from EPA to provide outreach to ethnic communities on mercury in fish. She mentioned the challenges of providing accurate translations due to cultural differences fish consumption.

Matt Levine mentioned the large network of refugee resettlement groups, including those not affiliated with state government that could be utilized in the grant project. Ms. Knaebel indicated that she was aware of this network and would be utilizing it.

Ms. Knaebel said that she has not received anything back from the Governor’s Office on committee member appointments.

Agenda Item 7

Set Date and Agenda for next meeting

For the next meeting, Neil Kamman will attempt to get information for the Committee from the Medicaid program on coverage for amalgam and composites and look in to information from one of the larger providers other than Delta Dental.

Gary Gulka will find out the status of the University of Minnesota studies on dental amalgam removal.

Senator McCormack said that there should be further discussion on the elements of a Committee recommendation regarding the content of a dental brochure. Representative Martin suggested that that this discussion should also include the methods of dissemination of the information.

Matt Levine suggested that a starting point for discussion of the dental issue could be the House Fish, Wildlife & Natural Resources Committee bill that was passed. He advised he would provide the most recent copy of this bill to Committee members.

Michael Bender suggested that the Committee think outside the box on what entity would be responsible for creating the information on dental filling choices. He felt that charging the Department of Health with this task will not work.

Agenda items for the next meeting include the following:

- Mercury project updates – including the University of Minnesota study
- Dental insurance and Medicaid
- Fluorescent lamps
- Dental brochure

Proposed meeting dates are October 28 and October 31 with a starting time of 9:30 am. Committee member availability for these dates will be determined via email.

Summary of Motions Passed and Other Action Items Agreed to at this ACMP Meeting

Mr. Bender said that the Minnesota Pollution Control Agency has developed mercury reduction goals and abatement options and that he would provide this information to Mr. Elliott for review.

Neil Kamman told the Committee that he would send a letter to the Medicaid Program with the Committee's questions and the response would be discussed at the next meeting.

Gary Gulka will find out the status of the University of Minnesota studies on dental amalgam removal.

Subcommittee Meeting of ACMP **Advisory Committee on Toxics (ACT)**

Members Present:

Michael Bender, Abenaki Self-Help Association, Inc.
John Berino, Vermont Association of Hospitals and Healthcare Systems (Fletcher Allen)
Elliot Burg, Vermont Attorney General's Office
Gary Gulka, Vermont Agency of Natural Resources, Environmental Assistance Office
Jennifer Holliday, Chittenden Solid Waste Management District
Neil Kamman, Vermont Agency of Natural Resources, Water Quality Division

Ruma Kohli, Chemical Management Program Manager, IBM
Lynn Metcalf, Vermont Agency of Natural Resources, Waste Management Division
Cynthia Martin, Vermont State Representative

Guests Present:

Thomas Benoit, Vermont Agency of Natural Resources, Waste Management Division
Crystal Bousquet, Otis & Brooks
Charity Carbine, Vermont Public Interest Research Group
Kevin Doering, Vermont Department of Health
Allison DeMag, American Chemistry Council
Jim Leland, Vermont Agency of Agriculture, Food and Markets
Bob McLeod, Vermont Occupational Safety and Health Administration (VOSHA)
Steve Rosario, American Chemistry Council
Tasha Wallis, Vermont Retail Association
Karen Knaebel, Vermont Agency of Natural Resources, Environmental Assistance Office

The Subcommittee members and interested parties gathered in the conference room of the Laundry Building at the Waterbury State Complex. Neil Kamman called the meeting to order.

Agenda Item 1

Discussion with Cary Giguere, Pesticide Program Section Chief, Agency of Agriculture, Food and Markets regarding pesticide programs.

Cary Giguere and Jim Leland from the Agency of Agriculture, Food and Markets were introduced to provide an overview of the Agency's Pesticide Management Program. Several handouts were provided with detailed information. The Pesticide Management Program includes and integrates activities of the Pesticide Applicator Certification Program, Pesticide Enforcement Program, Agricultural Water Quality Program, and Non-Point Source Control Program.

The Agency regulates pesticides through a cooperative agreement with EPA and interacts with the Vermont Agency of Natural Resources and Department of Health in administering its program. Pesticides are registered at the federal level by EPA for distribution, sale, and use after an evaluation of human and environmental health effects, including effects on wildlife, plants, surface water, and ground water. Potential registrants must provide data to EPA according to EPA test guidelines. EPA then issues a Registration Eligibility Decision and pesticides may then be registered in each state. Vermont can further restrict the availability. The Agency classifies registered pesticides as: Class A (requires license for use), Class B (not sold to the general public and some guidelines for use), or Class C (general use, including household disinfectants). There are over 9000 registered pesticides, including disinfectants.

Restricted use products require a license and certification for use in the State of Vermont. There are 535 private applicators (mostly farmers) and over 800 commercial applicators, including those that provide residential pest control services. The commercial category includes non-commercial and governmental applicators. The pesticide certification and training program provides a minimum standard of competence for pesticide applicators. Certification

examinations are required and re-certification every five years through re-examination or by attending a certain number of hours of training or classes.

The Worker Protection Program protects users and harvesters (including migrant workers). There are six inspectors statewide to monitor worker protection.

The Water Quality Protection Program monitors surface and ground water. The Vermont Pesticide Advisory Council (VPAC) has an interest in surface water quality monitoring. Examples of monitoring include corn pesticides in ground water and an ongoing surface water quality monitoring in Lake Champlain and its tributaries. There is an extensive program to regulate the use of pesticides by golf courses which must submit pesticide management plans. The Agency has worked with UVM to evaluate impacts of lawn-care pesticides on water quality.

The Agency prepares an annual report on restricted pesticide use by county and includes the amount of each pesticide used. Farmers are not required to report but must keep records available for two years. Some of the largest pesticide uses include cooling tower biocides (largest use), corn pesticides (second largest), golf courses (third largest), and Christmas tree farms. Another example of use includes OMYA, which treats its calcium carbonate slurry with a slimicide before shipment. Pesticide sales data are reported by county and indicates who purchases the pesticides. This information is available on the Agency's web page.

There are six pesticide manufacturers in Vermont that are not primary manufacturers, including a paint manufacturer that adds biocides to the paint formulation, sodium hypochlorite re-packagers, ant bait manufacturers, and Gardner's Supply which re-packages pesticides.

Elliott Burg asked what range of authority the Agency has to regulate beyond EPA. There is authority in state statute to ban the use of a pesticide but there are concerns with restriction of trade and interstate commerce issues if Vermont bans the use of a pesticide that is available in other states.

Mr. Burg asked if the Agency looks to other jurisdictions for advice on how to regulate certain pesticides. The Agency participates in the Association of American Pesticide Control Officials and its various workgroups. Mr. Burg also asked if there are examples of states being more stringent than EPA in regulation of pesticides. California and New York run their own pesticide registration programs; however, Vermont is equally restrictive in many instances. New York's pesticide program usually does not ban pesticides, but places local restrictions on use. California has more data requirements for registration approval and is generally viewed as the most stringent program. States like Vermont routinely restrict pesticide use such as corn herbicides, due to the concern of ground water contamination. Aquatic pesticide use requires a permit. Vermont is much more restrictive than the federal program.

Elliott Burg asked if the Agency is promoting safer alternatives. VPAC promotes safer alternatives; one example is with golf courses and the required pesticide management plans. VPAC meets annually to discuss utility right-of-way application of pesticides, including the products that should be used, as well as the width of buffers. Mosquito larvicides are all biological pesticides and permitted use is based on risk assessment done by the Department of

Environmental Conservation (DEC). Integrated pest management is a part of all training programs.

Charity Carbine asked about VPAC and its level of activity. The level of activity varies. There are two right-of-way meetings per year; the last one was in May and will be meeting again in the near future. There is no public member currently. There is no member from UVM College of Medicine. Members include UVM Extension (two members), Department of Fish & Wildlife, Department of Forests and Parks, Agency of Agriculture, Agency of Transportation and Department of Health. The information about VPAC is available on the web.

Gary Gulka asked if the Agency performs risk assessment. The Agency generally relies on risk assessment work of other agencies and departments within the state.

Michael Bender asked if it is easier to restrict pesticide use than to ban a pesticide. It is easier to restrict use – at the highest level; the Secretary can issue a one-time permit for use. An example given was mosquito misting systems. The Agency restricts the use of chemicals that are used in these backyard, residential systems but does not ban the use of the system itself.

Gary Gulka asked about the process to restrict the use of a pesticide. It is generally an internal discussion in the Agency involving toxicologists and others who will make a decision. An example given was the restriction of Resmethrin in the mosquito misting systems. The Agency reviewed the label and registration package; even though this pesticide is present at low concentrations in products such as Raid, the Agency restricted this use of the pesticide because it was sold in 25-gallon containers with 18 percent concentration of the active ingredient. The Agency also uses data on Adverse Effects Reporting required by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Also the National Pesticide Information Clearinghouse logs calls and the Agency uses this information to gauge problems based on actual user concerns. The Agency will look at these products. Two years ago the Agency restricted the use of spot-on flea treatments.

Mr. Kamman asked if there is any tracking on the sale of Class C pesticides. There is no tracking of the sale of these pesticides.

Elliott Burg asked how the Pesticide Management Program in the Agency might connect with the work and charge of the ACMP. The Pesticide Management Program could serve as a model for regulation of other toxic substances. The fee system for pesticide registration generates revenue to support the program. It includes an additional five dollars that goes to fund municipal pesticide collection programs that can be utilized by homeowners and farmers.

Jen Holliday asked if there are other entities regulating pesticides. DEC performs aquatic toxicity testing.

Michael Bender said that an expanded advisory committee on toxic substances would fit in with VPAC. There could be a representative from the Agency of Agriculture on the advisory council. Gary Gulka said that it would be helpful to have a better understanding of how pesticides are evaluated under FIFRA. It was mentioned that there is more information on EPA's web site on the Registration Eligibility Document (RED) and the registration package. It was mentioned that

further restrictions are occurring at the federal level on pesticide use. Organophosphate pesticide registrations are being discontinued. Diazinon uses have been completely canceled.

Agenda Item 2

Discussion with Robert McLeod, Vermont Occupational Safety and Health Administration (VOSHA) Program Manager, Vermont Department of Labor

Bob McLeod prefaced his remarks by stating that the Worker Protection Program under VOSHA is limited to the employer-employee relationship in the public and private sectors. He indicated that the program does not regulate chemicals but regulates employee exposure to chemicals. There are 600 chemicals with permissible exposure limits (PELs). There are 30 chemicals with expanded health standards and these include asbestos and lead. These standards prescribe how work is to be performed when these substances are involved, including medical evaluations and monitoring. Vermont's PELs are more restrictive than federal OSHA, but they are meant for persons working an eight-hour day, 40 hours per week. These standards are about 100-fold higher than ambient air standards.

The federal Hazard Communication Standard requires that chemicals in the workplace be assessed for health hazard, properly labeled when sold, and a Material Safety Data Sheet (MSDS) be provided. The employer must train employees how to protect themselves from workplace chemical hazards and the MSDS must be readily available for employees. This regulation has prompted the search for less hazardous alternatives; however, sometimes the alternatives are also found to be hazardous in other ways. The VOSHA program has no authority for requiring reports on chemicals used and only looks at this issue while doing an on-site inspection.

There are four health compliance officers and six safety officers statewide which are cross-trained. Health compliance officers can do workplace sampling for employee exposure. Employees can be monitored by using a pump that draws a fixed amount of air to calculate an eight-hour time weighted average of chemical exposure. Project WorkSafe is a voluntary hazard assessment program that allows an employer to correct violations that are found in an inspection without penalty. The regulatory side of the program would issue a penalty in this case if it were a regulatory inspection.

Elliott Burg asked which chemicals are of high concern in the workplace. Mr. McLeod said that isocyanates, silica, and lead exposures were of concern. Examples of isocyanate exposure are spray-on truck bed liners and spray foam insulation products used in building weatherization. Exposures to these and other chemicals can be controlled in the workplace by reducing air concentrations or wearing personal protective equipment such as negative pressure or cartridge-type respirators with filters or air-supplied respirators. There is a general concern that as Vermonters weatherize their homes, there will be increased levels of indoor air contaminants including carbon monoxide.

Mr. McLeod said that even though there are only 600 chemicals with permissible exposure limits, the Hazard Communication Standard requires a MSDS for every chemical and precautions on the MSDS must be followed or a citation will be issued. Although every product

determined to be hazardous should have an MSDS, this is not always the case. In cases where regulatory authority is not clear, VOSHA can use a general duty clause that states that the workplace must be free from hazards that could cause serious harm or death to workers. In order for federal OSHA to add chemicals to their list, it must go through a rulemaking process; it has proved difficult to accomplish this task. But there are other lists of chemicals such as National Institute for Occupational Safety and Health (NIOSH), and International Agency for Research on Cancer (IARC) which can be used.

Mr. McLeod said that he was not certain how the VOSHA Program would fit within an advisory committee on toxic substances because of the way in which the regulatory program operates. He suggested that the Committee hear from Randy Bronson in Emergency Management under the Department of Public Safety. This program collects information on a comprehensive list of hazardous chemicals that are stored on site and collects a fee from along with submitted reports that funds the program and state emergency planning efforts.

There was continued discussion about the spray-on foam insulation products and the need to provide more information to the public about the health hazards. Mr. McLeod acknowledged this and said that more public information could be provided.

Agenda Item 3

Discussion with Vermont Department of Health (VDH):
Lead, Asbestos, Radon programs.

Kevin Doering remarked that programs under VDH existed because of state laws, federal programs, or because there was no other program or agency to house a particular program that related to a health concern. Programs related to toxic substances include: lead poisoning and lead regulatory program, asbestos, radon, school indoor air, private drinking water, toxicology risk assessment, and public response to questions. There are district offices as well as the central office in Burlington. The Health Officers program was severely cut last year and operations are no longer run out of regional offices.

The lead program deals with child and adult lead poisoning which is a federal program. There are an estimated 2200-2500 Vermont children that are exposed to unhealthy levels of lead that causes elevated blood lead levels. The lead regulatory program also deals with worker exposure to lead.

The asbestos program is often triggered through building renovation when asbestos is present. VDH enforces an asbestos abatement plan that must be in place.

The radon program is not a regulatory program but is a program funded by EPA to educate the public on radon in order to prevent unacceptable exposures to radon which can lead to lung cancer. About 14-18% of homes in Vermont exceed safe levels for radon.

The school indoor air program resulted from Act 125, a program established six years ago that relates to toxic substances. This program created a certification program for schools. It is funded through monies that the state receives for its asthma program.

There is a drinking water program that assists home owners in assessing substances of concern in drinking water, including water testing.

The toxicology and risk program deals with public complaints and general questions as well as conducting research on potential exposures or illnesses caused by toxic substance exposure. There are numerous calls and questions from the general public on indoor mold, especially after a wet summer. However, there is no specific program in place to deal with these indoor air quality issues.

Mr. Kamman asked how VDH addresses a potentially new toxic substance of concern. Mr. Doering said that VDH will often get information from DEC, the Attorney General's Office, or other third parties. Toxicology research may be conducted and VDH will communicate to the agency which has jurisdiction or address the issue itself with public outreach. He indicated that there is no program or systematic approach, and it is a more happenstance or ad hoc approach. Mr. Doering indicated that there are 16-20 people that work in all of these programs, including three people that work in the toxicology and risk program. There is only one case manager to deal with children's lead exposure and this presents a great challenge with all of the numbers of children that are being exposed to unacceptable lead levels. A significant problem is that VDH programs are largely funded out of federal grants and grant dollars are diminishing.

Mr. Burg asked if there are other chemicals of high concern that are not being addressed by VDH programs. Mr. Doering said that he cannot answer for a specific chemical; however, indoor air quality is a significant problem in homes and public buildings with no VOSHA jurisdiction. The general public is very unaware or uneducated about air exposure to chemicals and all kinds of problems are being found. Asthma rates are a concern. Mr. Doering further stated that VDH does not have a system or program in place to prioritize chemicals of concern based on exposure and that the approach is a more reactive one.

Agenda Item 4

Brief Vermont Agency of Natural Resources program overviews:
RCRA, Sites Management, Environmental Monitoring, Air Toxics

Mr. Kamman recommended that a discussion of Agency of Natural Resources programs be deferred to the next meeting due to time constraints. It was agreed that this would be deferred to the next meeting.

Agenda Item 5

Discussion of framework questions for a Vermont toxic substance program.

Elliott Burg reviewed the outline prepared for this meeting entitled *Questions to Consider in Connection with the Systematic Regulation of Toxic Substances in Vermont*. He said that this document was based on a review of bills, statutes and programs in Massachusetts, Washington, and Maine related to toxic substances. It was intended to identify topical areas addressed and to

place these in a logical order, with the state or states identified that address a certain topic. Mr. Elliott highlighted the topical areas included in the document including:

- What substances should be considered for regulation? Should pesticides and pharmaceuticals be included?
- What media of substances should be regulated (consumer products, manufacturing, environment)?
- What activities should be regulated (sale, manufacturing)?
- What types of actions should be available to be taken to address toxic substances of concern?
- Should there be waivers on a particular chemical that would otherwise be restricted?
- What presumptions, if any, as to toxicity should be adopted?
- What procedures should be followed to regulate or restrict chemicals of concern?
- What information on chemicals should be gathered and publicly disclosed?
- What should be the implementing structure for a program?
- Should fees be levied?
- What enforcement mechanisms and consequences should be utilized?

Mr. Elliott stated that this document should be considered a work in progress with some missing pieces.

Michael Bender referenced the charge of the Committee in its report to the Legislature: (1) summary of existing programs; (2) summary of how other states identify toxic substances of concern; and (3) whether the existing ACMP should be expanded or some other entity should have jurisdiction. He said that there is another year left before the existing Committee sunsets. He said that, in his opinion, he felt that the Committee should be expanded to address other toxic substances. He said that he felt that the second part of the work of the Committee should be to follow up with more work on the recommendations during the next year, since there is a lot of ground to cover in the charge from the Legislature. Mr. Bender asked Committee members if whether they also agreed that the jurisdiction should be expanded.

Mr. Kamman said that he felt the need to meet with VPAC because there appeared to be overlap in responsibilities. He also said that if the Committee is expanded, the staff support issue and resource issue needs to be clarified.

Mr. Gulka stated that his understanding of the charge of the Committee was to make a recommendation on the expansion of the Committee that would then advise the Legislature on a toxic substances program; and that it is not the charge of this Committee to propose the program.

Jen Holliday said that she felt that more work related to mercury is needed beyond the sunset date of the Committee in 2010.

Mr. Burg acknowledged that this is a complex topic and it may take a long time to resolve in the Legislature. He felt that the Committee would be well served to do the best it can in completing the charge for the legislative report and allow the legislative process to take its course in the new biennium. The Committee will then go back to mercury-related work in January.

Mr. Bender reiterated his concern about the complexity of the task and that the subcommittee is, thus far, barely scratching the surface. He said the first question to address is whether the Committee should be expanded.

Representative Martin said that she was opposed to expanding the scope of the Committee because she thought the Committee had its hands full with mercury issues.

Charity Carbine said that there should be no impact on the Committee and its mercury work until its sunset date in 2010.

In response to Representative Martin's comment, Mr. Kamman said that this issue is complicated and there are many issues and opportunities beyond the mercury problem that need to be addressed.

Mr. Burg said that there are structural issues between the existing Committee and a new toxics committee, such as the makeup of the two groups. Perhaps the two need to be looked at as separate entities. He said that if the concept is to regulate chemicals, it may be necessary to have an agency entity who implements a program together with an advisory group.

Mr. Gulka said that it is not necessarily an advisory group that implements the program, but recommends a program to the legislature and oversees it. He agreed with Mr. Burg that the subcommittee do the best it can in responding to the legislative charge and not defer work to next year.

Tasha Wallis said that the opinion of existing programs on this matter should be sought out – to find out from a risk perspective, whether it is better to support existing programs versus expanding into new areas.

Mr. Bender said that Vermont has been a leader on mercury. The Advisory Committee is not attached to an administration or agency. Work is coming out of voluntary resources. He suggested that the effectiveness of the ACMP model should be acknowledged.

Mr. Burg said that one approach is to have a model where there is a consensus on regulating a toxic substance of concern. On the other hand, there are a large number of toxic substances where there is no consensus – the latter process may require the hand of regulation. Perhaps there is a way of coming up with a hybrid.

It was agreed that the topics for the next meeting would include:

- Discussion of Agency of Natural Resources programs
- Answer the charge of the committee to recommend whether ACMP or other existing program or state agency should be expanded to include review of additional toxic substances.
- Discuss legislative report outline.

Mr. Kamman said that he will prepare an outline of the legislative report and distribute it before the next meeting.

Mr. Kamman noted that from the discussions in the meeting, there appeared to be a gap in the oversight and regulation of chemicals in the home and home products.

Mr. Burg suggested that there be an opportunity for the subcommittee to hear from someone affiliated with the European REACH Program. Michael Bender agreed that he would attempt to arrange for a speaker for an information gathering session prior to the October 28 meeting.

Summary of Motions Passed and Other Action Items Agreed to at this ACT Meeting

- Mr. Kamman said that he will prepare an outline of the legislative report and distribute it before the next meeting
- Michael Bender agreed that he would attempt to arrange for a speaker for an information gathering session prior to the October 28 meeting.