

Part 201

Technical Advisory Group No. 1

Meeting No. 1

Wednesday, June 4 | 9 AM–Noon
Public Sector Consultants, 230 N. Washington Square, Suite 300, Lansing

AGENDA

- | | |
|--|----------------------|
| I. Welcome and Overview | Bob Wagner, MDEQ |
| a. Introductions | |
| b. Charge to the Technical Advisory Groups (TAGs) | |
| c. Role of Public Sector Consultants Inc. (PSC) | |
| II. Stakeholder Involvement Process | Mark Coscarelli, PSC |
| a. Operating procedures for TAGs | |
| b. Discussion guidelines for the TAGs | |
| c. Guidelines for finalizing recommendations | |
| III. White Paper Discussion | Group |
| IV. Next Steps | Mark Coscarelli, PSC |
| a. Meeting logistics (i.e., dates, location, summaries, information sharing) | |

PART 201 Technical Advisory Group 1: Chemical-physical Parameters and Toxicology *Meeting Summary 1*

Wednesday, June 4, 2014
9:00 AM–12:30 PM
Public Sector Consultants, Lansing, Michigan

TAG Members

Attendees

Dr. John Buchweitz	Michigan State University
Steve Crider	Barr Engineering
Jennifer Gray	Michigan Department of Community Health
Betty Locey	Arcadis
Eric Wildfang	Michigan Department of Environmental Quality
Lisa Yost	ENVIRON Corporation

MDEQ Staff

Bob Wagner	Michigan Department of Environmental Quality
------------	--

Project Staff

Mark Coscarelli	Public Sector Consultants
Katie Van Dorn	Public Sector Consultants

The first Chemical-physical Properties and Toxicity Data Technical Advisory Group (TAG) meeting for the Michigan Department of Environmental Quality (MDEQ) Part 201 project met on Wednesday, June 4, 2014, at Public Sector Consultants (PSC). The group was welcomed by Bob Wagner, Division Chief of Remediation and Redevelopment at the MDEQ. The focus of this TAG meeting was to provide TAG members context for the Part 201 project, outline the roles and responsibilities of the TAG, discuss the white paper on Chemical-physical Parameters and Toxicity Data, and begin discussing the questions outlined in the white paper for this TAG committee to address.

CONTEXT AND BACKGROUND OF PART 201

Part 201 of Michigan's Natural Resources and Environmental Protection Act (EPA) sets standards for environmental cleanup and provides incentives for cleanups of brownfields in the state. These rules and standards were last updated in 2002, with the exception of rules for about six chemicals, which have been updated since then. In 2010, the Michigan Legislature amended Part 201 to, among other things, require the MDEQ to update the cleanup criteria rules within two years of the effective date of the legislation to take into account recent scientific information. To do this, a stakeholder group was convened to make recommendations on how to update the cleanup criteria rules based on best practices, science-based research, and realistic and reasonable

conditions. Due to a limited amount of time and the difficulty of the task, the stakeholder group did not complete the task.

Now, in 2014, the MDEQ has changed its approach for making recommendations for updating the generic cleanup criteria for the 309 hazardous substances covered by Part 201 in several ways. First, the stakeholder group is being supported with the expertise of three technical advisory groups (TAGs), one of which is addressing chemical-physical parameters and toxicology. The other two groups focus on exposure pathways and vapor intrusion. A fourth group may be convened, and if so, that group will focus on legal implications of the recommendations for cleanup criteria. The TAG members are field practitioners, scientists, toxicologists, and others with years of experience working with these difficult issues. MDEQ employees are also on each TAG to provide background about current practices. Secondly, instead of the MDEQ leading the process, Public Sector Consultants (PSC) is facilitating and guiding the TAGs and Criteria Stakeholder Advisory Group (CSA). Lastly, the TAG groups will give recommendations to the CSA for consideration, and the CSA will provide a set of final recommendations to the MDEQ. The MDEQ Director will consider the recommendations when updating Part 201 Rules.

TAG ROLES AND RESPONSIBILITIES

Each TAG was provided with a white paper addressing their specific topic that contains background on the issue and outlines questions to be addressed by the TAG. The TAG can recommend different or additional questions to the CSA for consideration.

It is the intention of this process to have the TAG members reach a consensus on each question. If a consensus is not possible, a super majority (one more than a simple majority) will be used to make recommendations to the CSA. Any strong reservations on a recommendation will be documented. Any concern(s) will also be documented, along with a range of options and potential consequences of a particular approach, and provided to the CSA.

Each TAG will establish a spokesperson or two for the group. These members will be asked to present the group's recommendations to the CSA. They will help answer any questions the CSA may have on their recommendations, or on how the TAG reached its decision.

The TAG members agreed on the process, and on their role and responsibilities in the process.

WHITE PAPER DISCUSSION

The white paper for this group was shared prior to the meeting for review. Overall, the group's impression of the white paper was positive. They reported that it is well laid out, and that it provides guidance to the group on where they should be focused. However, the group requested insertion of a brief explanation at the beginning of the white paper on this project and MDEQ's goal of updating the Part 201 Rules.

TAG members reviewed the nine questions presented in the white paper and suggested that a realignment and clarification on a couple would be helpful. Specifically, the group recommended looking at question 1 and question 5 together, and similarly grouping questions 2 and 4 and questions 4 and 6.

The group also decided which questions to address first. The group started by clarifying the intention of question 7, and then moved to discuss questions 1, 2, and 5. The questions and corresponding conversation are summarized below. Any recommendations made by the group appear in bold text.

Clarification: Question 7

Question 7: Should the “toxicity values” be consistent with or based upon federal (i.e., EPA) methodology and data? If so, are there any circumstances under which deviations from the federal (i.e., EPA) methodology and data should be allowed?

The group had three different interpretations of what is being asked in the first part of question 7. Some participants thought it referred only to MDEQ-derived values and not broader data sources. Other participants said they thought this was about establishing guidelines when Michigan’s standards are stricter than the federal EPA standards, with a goal of generally *not* having stricter standards than the EPA. Others thought it was asking about addressing missing end-point values in the federal standards.

MDEQ provided context that this question’s origins are in using cumulative risk screening versus specific pathway screenings. This has been a controversial issue in the past, but because of the limited time frame for this current stakeholder process, the CSA does not want the TAG to address this whole issue including the algorithms. Instead it wants to focus on a limited portion of the issue, and address whether the MDEQ should be consistent with federal methodology, or whether the MDEQ should adopt its own methodology. It was suggested that the federal EPA standards currently use a media-specific screening approach most of the time.

The group recommends modifying this question to: If the EPA has one or more toxicity values for a chemical, will the state go beyond these to fill in where toxicity values are absent in one of the four possible values of oral, inhalation, cancer, and non-cancer? After the CSA group agrees to this question, or provides further guidance on this question, the group will begin to address it.

The second part of question 7: *“If so, are there any circumstances under which deviations from the federal (i.e., EPA) methodology and data should be allowed?”* was clear and can be addressed now.

Discussion: Question 1

Is the process utilized by the MDEQ since 2002 to select chemical-physical properties appropriate? If not, what should be changed?

The MDEQ wants to update its process for selecting chemical-physical values and toxicity values. The department wants the process to be easier to update, occur more frequently, be more transparent, incorporate the best science available, and allow for professional judgment. One of the underlying issues in determining a process is deciding whether values should be derived through models or through using experimental/field data. The issue of using the best available science and allowing for professional judgment in the process are included in the discussion on developing a hierarchy of sources in question 5 below.

The MDEQ developed a flow chart to show the CSA the process currently being utilized when a new chemical is screened. However, only six new chemicals have been subjected to the process since 2002. The department does not have the staffing available to update all 309 chemical toxicity values at once, but would like to review and update at least a subset more often than in the past.

One starting recommendation is to include a short reference for each chemical toxicity value in the Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-based Screening Levels table. A more detailed explanation of the reference could be stored in a separate table, but this would give each chemical toxicity value more transparency. A similar

model is being used in Ontario, and the MDEQ could look at this while designing their chemical toxicity value tables.

Another recommendation discussed would be to give more opportunity for the public to give feedback to the MDEQ on what data and methodology could be considered in developing toxicity values when the MDEQ determines it is necessary to do so. The MDEQ currently allows 90 days for public comments but this is a *customer service* approach and it is not required. The MDEQ wants to determine the toxicity values using science and research and, at times the public can help provide this information. Allowing for more public comment is another way to improve the transparency of the process. For example, at the start of the year, Michigan's Air Quality Division announces a short list of chemicals to be updated, and it asks for input on these chemicals for a period of time before updating the value. Additionally, the EPA's Scientific Advisory Board recently released recommendations for process improvements to IRIS, which include literature searches and transparency. This document is available to TAG members, and the group can consider these recommendations for the MDEQ's update process.

The group's discussion moved to acknowledging the underlying issue of deciding whether the process should rely more on model-based values or on experimental/field-derived values. There is an interest in the department to use experimental data whenever possible, but the department also values consistency and would like to have an updated process to determine values, especially considering staff resources and the time it takes to update these values. The data source used most often by the MDEQ is EPI Suite; this combines both experimental data in literature and transport models. One concern with model approaches is that they can derive estimates outside the range of measured values and when multiple sources of overestimation are included risk estimates can be unrealistically high. If input parameters are underestimated (not high enough), after cleanup, the site may still not be safe enough for people and the environment. Conversely, if they are too high, the cleanup process can incur a significant and unnecessary cost.

To evaluate the impact of the proposed changes in sources of chemical physical and toxicological data, the group wants to look at the variability, or relative percentage difference, between the model-based values and experimental-based values (from MDEQ Table 4). The group will then look at the differences, and determine whether there is a certain level of variance that warrants further investigation, and/or whether there is a subset of major chemicals with any level of variability that warrants further investigation. The MDEQ has the lists of values, and will send them out to the group for its review.

Discussion: Question No. 5

Should a hierarchy of data sources be established? If not, please provide a rationale. If so, what should the hierarchy of sources be and are there any circumstances under which deviations from the hierarchy should be allowed?

The TAG agrees that to be transparent and consistent in the process for determining the chemical-physical toxicity values, it is essential to have a hierarchy of data sources. Additionally, a hierarchy will allow for those outside of the MDEQ to arrive at (or duplicate) the same value as MDEQ. However, as in most things, there is a level of professional judgment involved. **Therefore, the TAG recommends having a hierarchy that loops back to best science and allows for professional judgment. They also recommend developing criteria around when flexibility should be permitted.**

The group will review the current MDEQ data source hierarchy. Then, TAG members will provide their suggestions and recommendations for a hierarchy for this process at the next TAG

meeting. Additionally, they will consider what other criteria, besides the age of the data source, need to be used when moving away from the hierarchy and determining when best professional judgment is acceptable.

Discussion: Question 2

Have the most robust and reputable data sources been selected to generate the data needed to establish the numeric values under Part 201 rules, or are there alternative databases that should be used?

The group agrees that because this is not about establishing a hierarchy of sources, it recommends adding sources to the list of resources. **The group recommends adding European sources and Ontario's sources.** TAG members will send the additional sources to the TAG for consideration.

NEXT STEPS

The next TAG meeting is from 9:00 AM to 12:00 noon on Thursday, June 12, 2014, at the PSC office at 230 N. Washington Square, Lansing, MI.

The group will continue to address the questions presented in the Chemical-physical Parameters and Toxicity Data white paper, including their hierarchy recommendations for question 5.