



EPA Modeling Clearinghouse LEAN Team Implementation Activities

12th Conference on Air Quality Modeling
RTP, North Carolina
October 3, 2019

MCH LEAN Team - LEAN Event Recap

- **EPA hosted a MCH LEAN event at RTP, NC on April 24-27, 2018**
 - 2 State/Local Agencies, 4 EPA Regional Offices, and 2 EPA OAQPS participants...all with alternative model approval experiences.
- **Goal: Streamline alternative model approval process.**
- **Mapped out “current state” and then developed a “future state” intended to:**
 - Facilitate early & improved communication;
 - Provide transparency to all participants including applicants, states, and Regional Offices; and
 - Reduce time and effort MCH staff and applicants spend on the process.
- **Key implementation steps:**
 - Revision of MCH Operational Plan to emphasize EPA Regional Offices and State/Local permitting authorities roles and responsibilities.
 - Development of new training materials and infrastructure to facilitate communication and tracking.
 - Establish early joint coordination between all parties to explore possible solutions short of alternative model.
 - Emphasis of the new alpha and beta options in AERMOD and education through the Development and Update Plan.
- **Report Out Presentation:** http://www.cleanairinfo.com/regionalstatelocalmodelingworkshop/archive/2018/Presentations/1-5_2018_RSL-MCH_Lean_Report_Out.pdf

MCH LEAN Team - A3 Problem Solving

- **Henry Darwin, EPA Acting Deputy Administrator, is requiring all of the SES / Senior Management to adopt and complete a “A3” project as a part of their annual performance review**
 - A3 Management Approach is similar to Six Sigma and in the same arena as Lean Management.
 - Flavors of visual management and tracking.
- **Chet Wayland aligned his A3 project with that of the MCH Lean Implementation**
 - This means that Chet is tying a portion of his performance review to the success of aspects of the MCH Lean!!!
 - A further commitment by OAQPS to the co-regulatory agencies and the stakeholder community that we are serious about further streamline the alternative model review, concurrence, and approval process.
 - First phase of Chet’s A3 was to be completed by the end of FY19 (Sept. 30, 2019).
- **Phase 1 – Implementation of an Internal Tracking/Coordination Interface**
 - EPA selected Microsoft SharePoint as our web-based collaborative platform that integrates with Microsoft Office/365.
 - The MCH has created an SharePoint Site for all data / information / documentation exchanges with the Regional Offices
 - Over the past couple of months, MS Teams has become a viable addition to the collaborative suite of tools available.
 - So, a MS Teams workspace has been created for the MCH and subsites or channels will be created for each alternative modeling project, whether it makes it to an alternative model approval or finds an “offramp.”

MCH LEAN Team - SOP/Checklists/Templates

- **2018 MCH LEAN Event:**
 - Identified Steps in “Current Process” and “Future Process”:
 - Current Process contains about 30 Steps, while Future Process will contain about 23 Steps.
 - Current Process could take up to 2 years, while Future Process is anticipated to take 4-6 months and no more than 1 year.
 - Weaknesses Identified in Current Process:
 - Applicants not familiar with process.
 - Applicant enters MCH Process at inappropriate stages.
 - Limited/Ineffective communications among Applicants, Permitting Authority and EPA.
 - Technical analyses for the MCH Package are either conducted too early, unnecessarily, or exclude relevant information.
- **Action to Address Weaknesses: Streamline MCH Process through the Implementation of a Standard Operating Procedure, Checklists, and Templates.**
 - Improves knowledge and transparency about the MCH Process.
 - Reduces time and effort spent on the MCH process.
 - Improves MCH Packages by ensuring that technical analyses are comprehensive, accurate, reliable, defensible.
 - Improves tracking of the Stages, Communication, and Decisions related to MCH Packages.

MCH LEAN Team - SOPs

- **STANDARD OPERATING PROCEDURE FOR THE AIR QUALITY MODEL CLEARINGHOUSE:**
 - Purpose:
 - Establish uniform procedures pertaining to implementing and tracking the MCH Process.
 - Establishes roles, responsibilities, and timelines for all MCH Process activities and participants.
 - Ensures efficiency, transparency, defensibility, and completeness of all MCH packages.
 - Components/Sections:
 - Scope and Applicability: Defines personnel and projects subject to the MCH Process and the various stages, work products, and terms used within the MCH framework.
 - Procedures: Outlines and defines the individual steps of the MCH Process for the Applicant, Permitting Authority, and EPA. Estimated processing time and relevant checklists and templates are also noted in each step.
 - Data and Records Management: Explains the process for storing and maintaining information related to MCH packages.
 - Deviations: Explains the process for deviating from the procedures, including beta options or leveraging other work to expediate the process.
 - Tracking Database: Explains the process for tracking MCH applications and associated information or communication.
 - Revisions and Retention: Explains the process for updating and maintaining the SOP.

MCH LEAN Team - SOPs

Preliminary Steps

STEP 1: Applicant discusses Preliminary ANDP with PA.

STEP 2: PA discusses Preliminary ANDP with RO and requests Co-Regulators Call.

STEP 3: RO discusses Preliminary ANDP with HQ and prepares for Co-Regulators Call.

STEP 4: RO schedules and facilitates Co-Regulators Call to discuss Preliminary ANDP.

STEP 5: RO writes and distributes notes of Co-Regulators Call, and shares applicable information with PA.

STEP 6: PA discusses results of Co-Regulators Call with Applicant, shares applicable EPA information, and decides whether supplemental information is needed for Preliminary ANDP.

RO discusses results of Co-Regulators Call with HQ, information is shared with all ROs. EPA seeks for information/projects to potentially leverage.

Goal Processing Time: ~1 month

Drafting Steps

STEP 7: PA contacts RO to request Stakeholders Call to discuss decision to proceed with ANDP.

STEP 8: RO discusses ANDP with HQ and prepares for Stakeholders Call.

STEP 9: PA and RO prepare materials for Stakeholders Call.

STEP 10: RO schedules and facilitates Stakeholders Call to discuss ANDP.

STEP 11: RO writes and distributes notes of Stakeholders Call, and shares applicable information with PA.

STEP 12: PA works with Applicant to Draft ANDP Technical Analysis Package. All players continue to coordinate.

STEP 13: PA submits ANDP Technical Analysis Package into internal review process.

Goal Processing Time: ~5 months

Formal Regional Office Approving Steps

STEP 14: PA submits Formal ANDP Technical Analysis Package to RO for approval.

STEP 15: RO conducts technical review of ANDP Technical Analysis Package and develops Formal MCH Package. All players continue to coordinate.

STEP 16: RO submits Formal MCH package into internal review process.

Goal Processing Time: ~3 months

Final MCH Steps

STEP 17: RO submits Final MCH package to MCH.

STEP 18: MCH conducts technical review of Final MCH package. All players continue to coordinate.

STEP 19: MCH submits Final MCH package into internal review process.

Goal Processing Time: Less than 1 month

KEY PLAYERS:

- Applicant
- Permitting Authority
- EPA Regional Office
- EPA Headquarters Office

KEY TERMS:

- PA = Permitting Authority
- ANDP = Alternative or Non-Default Procedure
- RO = EPA Regional Office
- HQ = EPA OAQPS

COLOR KEY:

- Orange-Outlined Box = Tracking Point
- Red Box = Decision Point
(i.e. "yes" or "not ready" or "bypass" option)

Response and Closure Steps

STEP 20: MCH sends Final MCH package to RO, along with reference to MCH Database (MCHISRS).

STEP 21: MCH posts Final MCH on MCH Database (MCHISRS).

STEP 22: RO sends Final MCH package to PA, along with reference to MCH Database (MCHISRS).

STEP 23: PA sends Final MCH package to Applicant, along with reference to MCH Database (MCHISRS).

Goal Processing Time: Less than 1 week

MCH LEAN Team - Checklists & Templates

- **Purpose of Checklists and Templates:**
 - Assist air quality modeling community in developing documents that address the needs of MCH Process in an effective and efficient manner.
 - Ensure that proper information is provided to Permitting Authority and EPA.
 - Associated to the Steps defined in the Standard Operating Procedure.
- **Checklists:**
 - Provide framework that brings together common elements and components to make it easier to develop and review documents.
 - Identify necessary points of communication and information required to ensure that MCH Process is implemented appropriately and efficiently.
- **Templates:**
 - Provide framework that brings together common elements and components, as well as preferred structures and styles, to make it easier to develop and review documents.
 - Reduce number of iterations and overall time to develop and review documents by providing reusable format to ensure that important information are included in the documents.

CONCURRENCE REQUEST MEMORANDUM TEMPLATE

MEMORANDUM

SUBJECT: Concurrence Request for Approval of Alternative Model:
[Non-Default Procedure]

FROM: [Regional Office Staff Name], [Title]
[Division, Branch, Region]

TO: George Bridgers, Director
Model Clearinghouse, Air Quality Modeling Group,
Office of Air Quality Planning and Standards

EPA Region [??] seeks concurrence from the Model Clearinghouse on the approval to use an alternative modeling approach. Briefly, the alternative modeling approach includes [description of approach].

EPA Region [??] has concluded that the [Non-Default Procedure] is subject to 40 CFR, Part 51, Appendix W, Section 3.2 and Section 3.3. To fulfill these requirements, this memorandum requests concurrence from the Model Clearinghouse on the approval of an alternative modeling approach used by [State, Facility Name].

The attachment includes a summary of the project and a technical analysis of the alternative modeling approach to support the approval.

Thank you for your careful attention to this matter and we look forward to your response. Please feel free to contact [Regional Modeler Name] of my staff at [Phone Number] with any questions about this request or the attachment.

ATTACHMENT:

MCH LEAN Team Updates - Training

Possible Target Audiences for Training:

- EPA Regional Offices
- Regional/State/Local/Tribal Permitting Authorities
- Stakeholders & Consultants

MCH LEAN Team Updates - Training

Training Modules Being Developed by LEAN Team:

1. Introduction and MCH LEAN Process (preliminary draft can be found under “Extra Slides”)
2. MCH SOP and Templates & Checklists
3. MCH Operational Plan

MCH LEAN Team Updates - Training

Module 1: Introduction and MCH LEAN Process

Module Objectives:

- Provide a refresher on the MCH and its purpose
- Provide a refresher on the LEAN Event and its goals
- Share weakness of the current MCH process that were identified by the LEAN Team
- Describe potential improvements suggested by the LEAN Team
- Outline the potential time savings that result from the LEAN Team's suggestions

MCH LEAN Team Updates - Training

Module 2: MCH SOP and Templates & Checklists

Module Objectives:

- Introduce the SOP for the alt. model approval process
- Give an overview of the SOP steps involved with an alt. model approval action
- Provide examples of how the SOP would be followed using several different scenarios
- Introduce the document templates that have been developed for various steps in the SOP
- Introduce the checklists that have been developed for various steps in the SOP

MCH LEAN Team Updates - Training

Module 3: MCH Operational Plan

Module Objectives:

- Introduce the updated MCH Operational Plan
- Highlight the changes between the updated Plan and the current version

Thank You!

Leiran Biton, EPA R1,
biton.leiran@epa.gov

George Bridgers, EPA OAQPS,
bridgers.george@epa.gov

Annamaria Colecchia, EPA R2
colecchia.annamaria@epa.gov

John Glass, SC DHEC,
glassjp@dhec.sc.gov

David Healy, NH DES, david.healy@des.nh.gov

Rebecca Matichuk, EPA R8, matichuk.rebecca@epa.gov

Ashley Mohr, EPA R6, mohr.ashley@epa.gov

Chris Owen, EPA OAQPS, owen.chris@epa.gov

