Integrating EJ with Facility Decision-Making in Context of CIA Regulations

Chris Aberg, Environmental Representative, Global Environmental Affairs

Eastman Chemical Company

We love our acronyms!

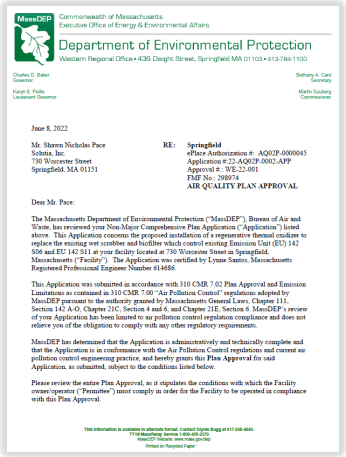
- EJ – Environmental Justice
- CIA – Cumulative Impacts Analysis
- LPA – Limited Plan Approval
- CPA – Comprehensive Plan Approval
- OP – Operating Permit
- BACT – Best Available Control Technology

Class Participation Portion

- How many of you currently have a CPA?
- How many of you have an OP that incorporates at least one or more CPAs?
- How many of you will have projects that could require a CPA?

- New project requiring a CPA → 10 TPY increase in emissions
- Reopening a CPA → 1 TPY increase

Air Permit Types


Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs
Department of Environmental Protection
Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

June 8, 2022

Mr. Shawn Nicholas Pace
Schuta, Inc.
730 Worcester Street
Springfield, MA 01151

RE: Springfield
ePlace Authorization #: AQ02P-0000045
Application #:22-AQ02P-0002-APP
Approval #.: WE-22-001
FMF No.: 298974
AIR QUALITY PLAN APPROVAL

Dear Mr. Pace:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Non-Major Comprehensive Plan Application ("Application") listed above. This Application concerns the proposed installation of a regenerative thermal oxidizer to replace the existing wet scrubber and biofilter which control existing Emission Unit (EU) 142 S06 and EU 142 S11 at your facility located at 730 Worcester Street in Springfield, Massachusetts ("Facility"). The Application was certified by Lynne Santos, Massachusetts Registered Professional Engineer Number 614686.

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control" regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-O, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

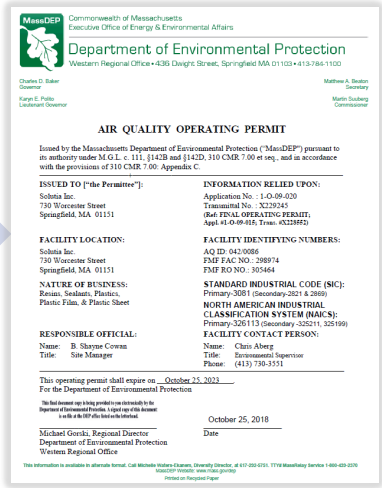
Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

This information is available in alternate format. Contact Alyssa Sugg at 617-348-4049.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep
Printed on Recycled Paper

Construction

Startup

Operation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AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("MassDEP") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

ISSUED TO ["the Permittee"]:
Schuta Inc.
730 Worcester Street
Springfield, MA 01151

INFORMATION RELIED UPON:
Application No. : 1-O-09-020
Transmittal No. : X229245
(Ref: FINAL OPERATING PERMIT; Appl. #1-O-99-018, Trans. #X218952)

FACILITY LOCATION:
Schuta Inc.
730 Worcester Street
Springfield, MA 01151

FACILITY IDENTIFYING NUMBERS:
AQ ID: 042/0086
FMF FAC NO.: 298974
FMF RO NO.: 305464

NATURE OF BUSINESS:
Resins, Sealants, Plastics, Plastic Film, & Plastic Sheet

STANDARD INDUSTRIAL CODE (SIC):
Primary-3081 (Secondary-2821 & 2869)

NORTH AMERICAN INDUSTRIAL CLASSIFICATION SYSTEM (NAICS):
Primary-326113 (Secondary -325211, 325199)

RESPONSIBLE OFFICIAL:
Name: B. Shayne Cowan
Title: Site Manager

FACILITY CONTACT PERSON:
Name: Chris Aberg
Title: Environmentl Supervisor
Phone: (413) 730-3551

This operating permit shall expire on October 25, 2023
For the Department of Environmental Protection

October 25, 2018
Date

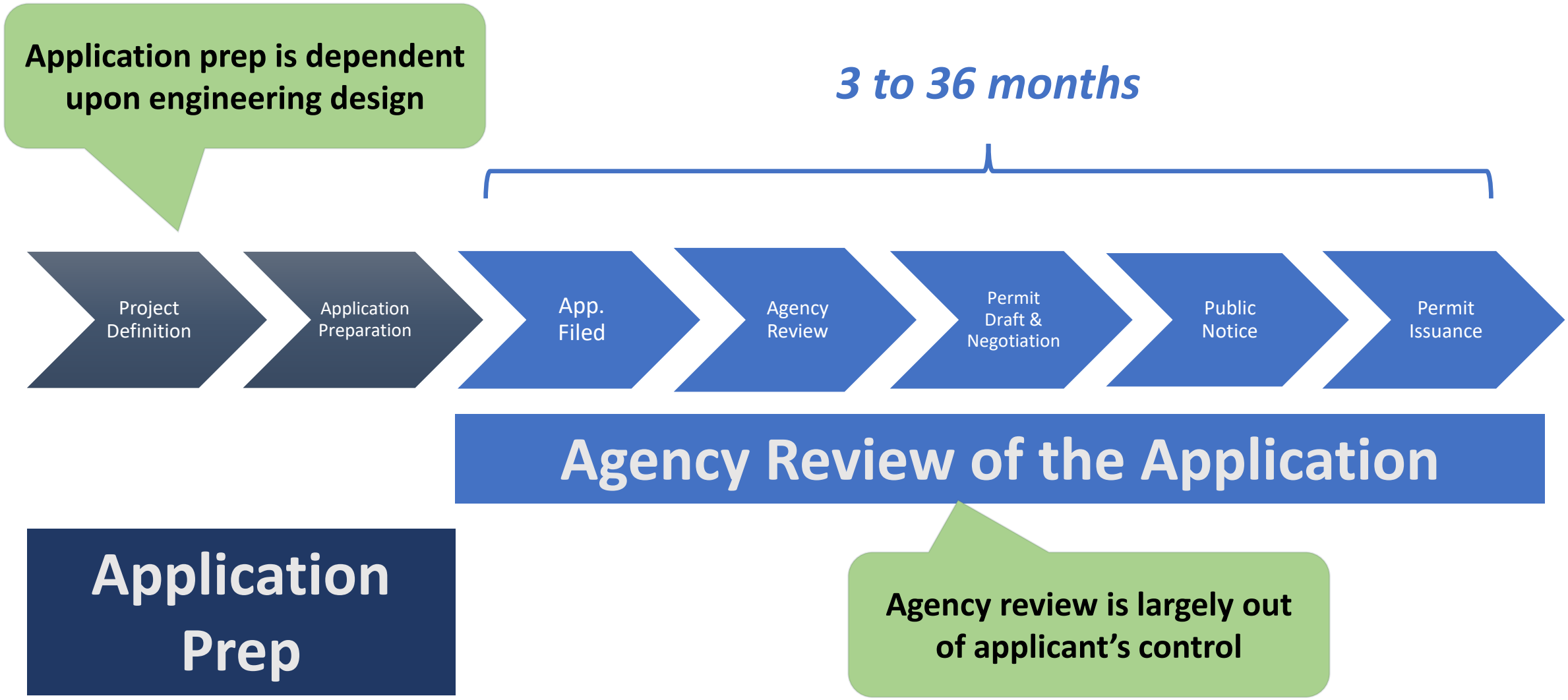
Michael Gorski, Regional Director
Department of Environmental Protection
Western Regional Office

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep
Printed on Recycled Paper

- New Source Review
  - **Required *Before Construction***
  - Defines the Air Pollution Controls required
  - Demonstrates that the new source will comply with the *State Implementation Plan* to assure air quality

- Operating Permit
  - **Required to Operate the Source**
  - "Title V" of the Clean Air Act requires major sources to consolidate all of the site's requirements into one permit

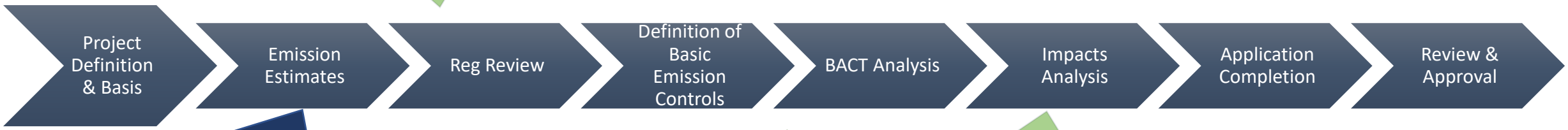
Ideal Air Permit Timeline



Ideal Air Permit Timeline

Application Prep

Agency Pre-Submittal Meeting



Needs for full air permits

- Heat and Material Balance (HMB)
- IDs of all vent points and emission generating activities
- Estimates of all emissions including maintenance & utilities
- Plot plan with all emission points identified and vent heights, velocities & temperatures
- Piping details sufficient to make estimates of fugitives (#s of pumps valves fittings and the composition of materials within the piping)
- Key equipment specifications to determine regulatory applicability. Ex. Capacities, manufacturers' guarantees of performance for combustion units.

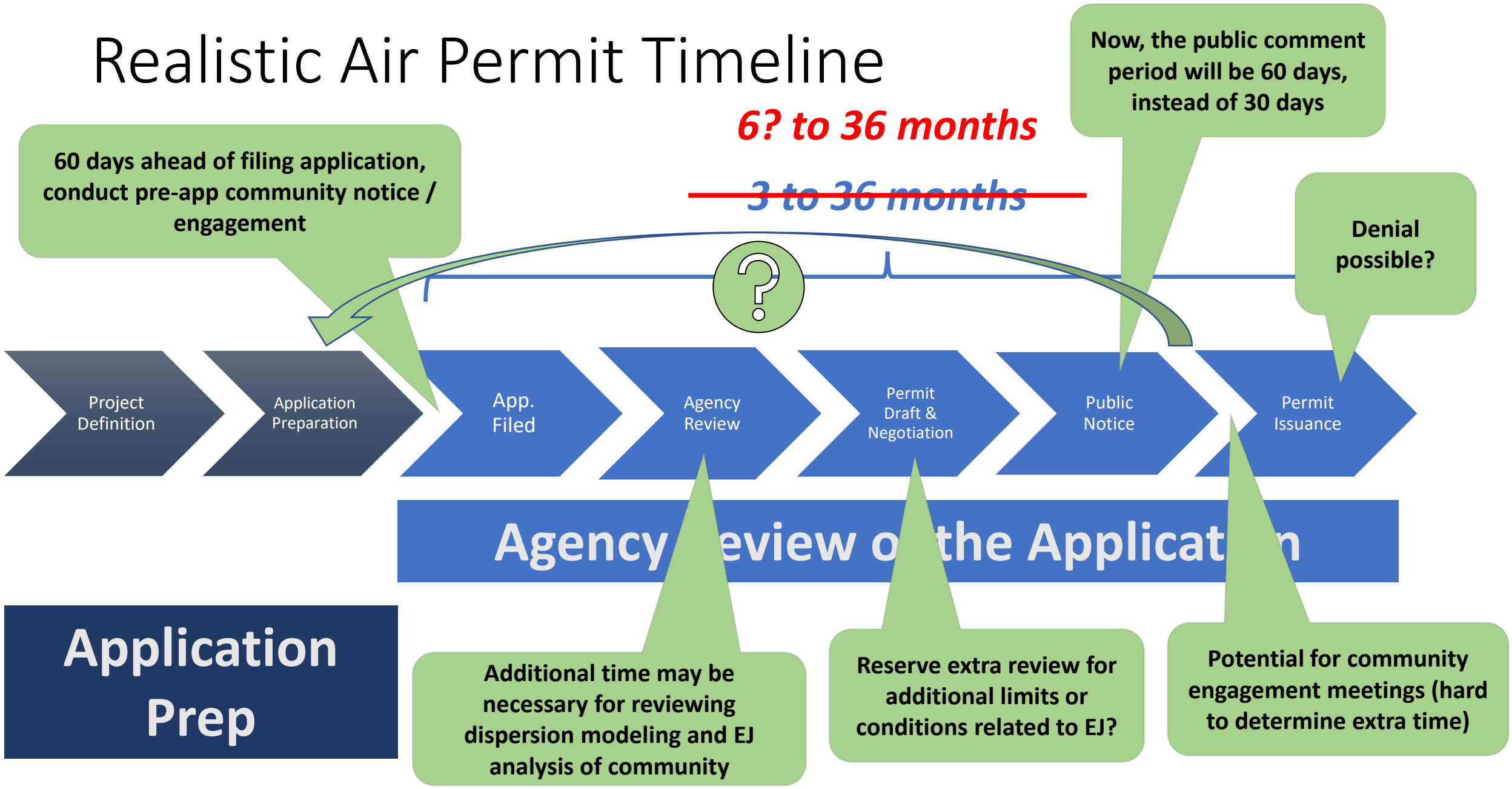
If impacts are unacceptable, revise the project scope

Modeling is sometimes required. The modeling for a minor source evaluates the immediate area around the facility while a major source modeling exercise includes a circle many miles around the facility. Modeling can be both costly and time consuming.

How could CIA change the permitting timeline?

- Leadership / capital / engineering out of sync with desired project implementation timelines
- More time to develop the application
  - Modeling
  - EJ facts regarding your area for CIA
- More time for the application initiation and review process
  - Fact-sheet – emissions need to be settled 60 days ahead of submission
  - Outreach to community/public
  - Modeling reviews
  - Public participation extended by 30 days
  - Potential public meetings / negotiations

Realistic Air Permit Timeline

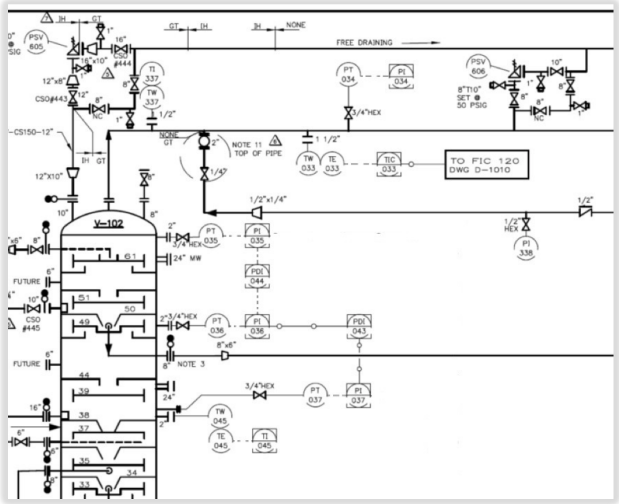


Recommendations / Suggestions for Decision-Making and Integration

Inform Site / Company Leadership

- Ensure that leadership understands the potential impacts to timeline(s)
- Site leadership must be able to communicate to the company the impacts CIA could have on a particular project
- Site leadership should play a role in engaging the community -or- engage the right people for assistance
- Engage leadership on future plans for the site

Capital Planning & Engineering



- You will need buy-in up and down in the organization
- Engage capital and engineering staff on future projects
- MORE TIME – projects will need to be planned and designed well enough in advance of their desired implementation
- Project scope – consider the size of the project to avoid CPA
  - NOTE OF CAUTION: Be careful of intentional disaggregation to circumvent CPA
- Project budget – consider proactive emissions controls
- Send project to another site...?

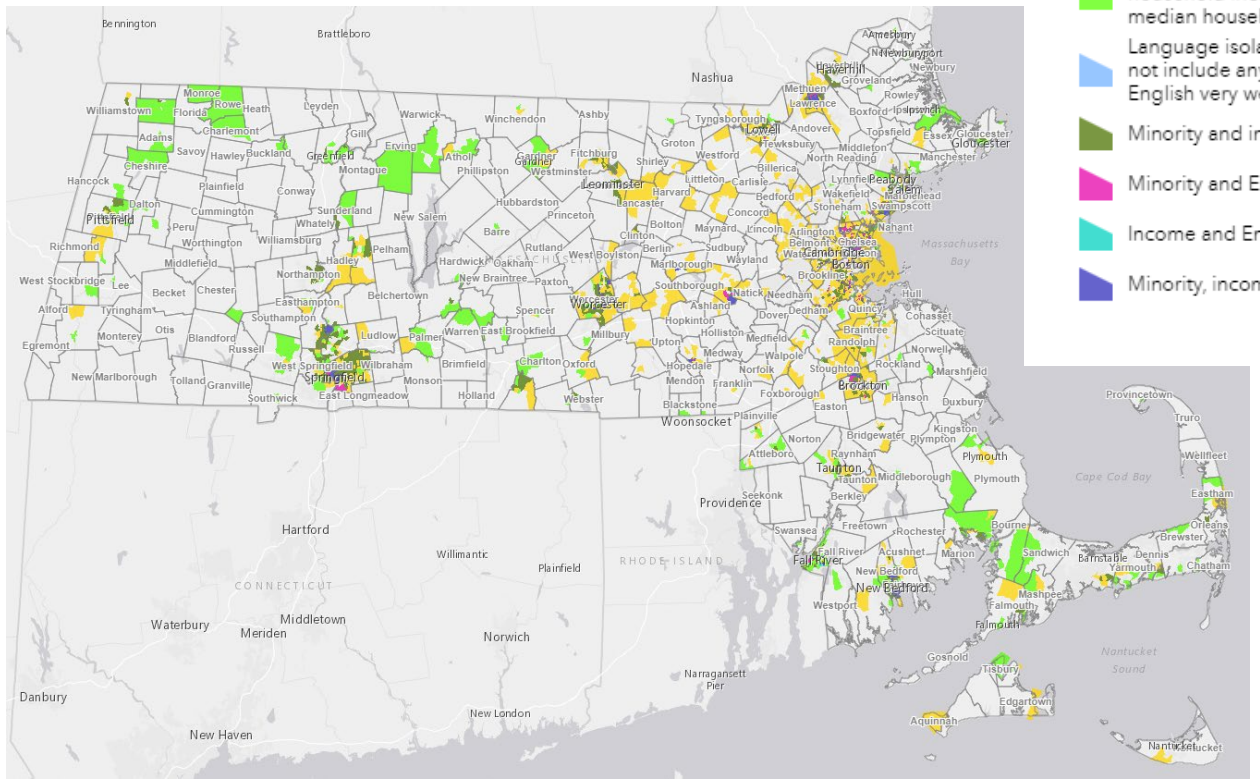
*If you haven't done so already...

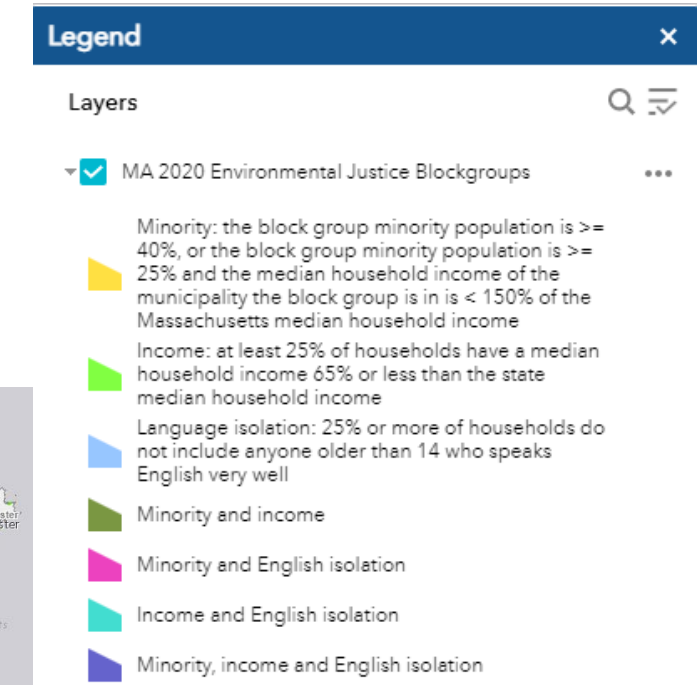
Start Meeting Your Community*

- Who have you heard from in the past?
- Do you have a good reputation in your community?
- Which individuals or groups influence opinions in your community?
- Consider establishing a Community Advisory Panel (CAP)
  - Example: In Springfield, there are "Neighborhood Councils" – Solutia/Eastman invited leaders of those councils into the CAP
- Get to know your local political leaders and those in the State House

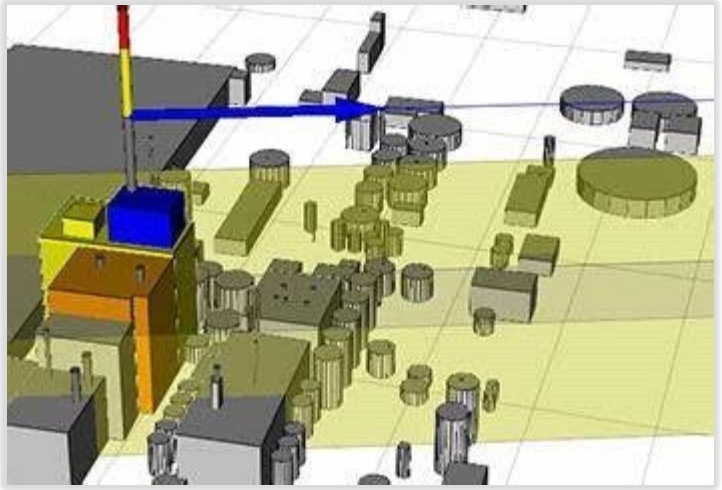
Gather EJ Facts for Surrounding Community

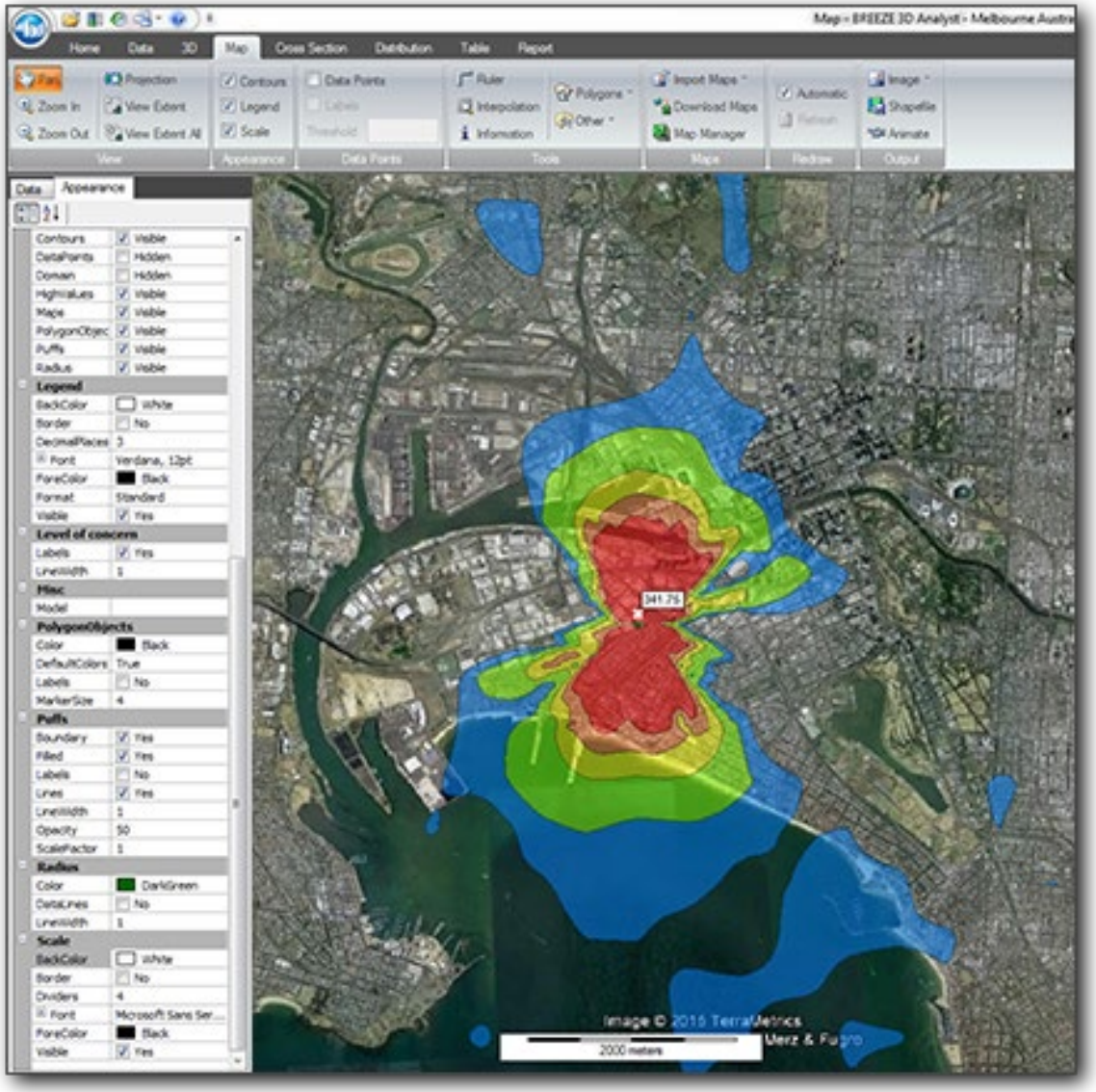
- Familiarize yourself with the tools
  - EPA's EJScreen
  - Massachusetts ArcGIS / MDPH EJ Tools
  - RMAT Tool?
- Collect for:
  - 1-mile radius, or
  - 5 mile radius
- Begin documenting
- Data may change





Air Dispersion Modeling for Toxics





- Review existing toxics list
- Begin building the model now
- Screening model (e.g., SCREEN3)
- Gaussian model (e.g., AERMOD)
- Gather the following:
  - Stack parameters (height, velocity, etc.)
  - Emission rates of toxics
  - Building dimensions
  - Map of site and site boundary

Summary of Recommendations

- Engage internal people (site leaders, engineers, etc.)
  - Make them aware of timelines and needs for earlier designs to hit desired targets, or
  - Alert them that they must factor in additional time for applications
- Engage your neighbors (individuals, groups, local leaders, etc.)
  - Do not discount their potential to act as advocates
  - Work together to understand their needs and concerns
- Begin gathering EJ facts about the surrounding communities near your facility
- Start building (or engaging consultants to build) an emissions dispersion model for the site