Update on
Proposed Amended Rule 1469
Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing

Stationary Source Committee
April 20, 2018

Background

- Rule 1469 regulates chromium electroplating and chromic acid anodizing tanks
- March 2018 Set Hearing
  - 7 people testified
  - Board voted to return to Stationary Source Committee for direction and determine if Proposed Amended Rule 1469 (PAR 1469) was ready for Set Hearing in April
- March 2018 Stationary Source Committee
  - 14 people provided comments
  - Not sufficient time for Committee discussion
  - Staff was asked to provide any additional updates at the April Stationary Source Committee Meeting

Need for PAR 1469

~40 heated dichromate seal tanks currently **300% above proposed limit**

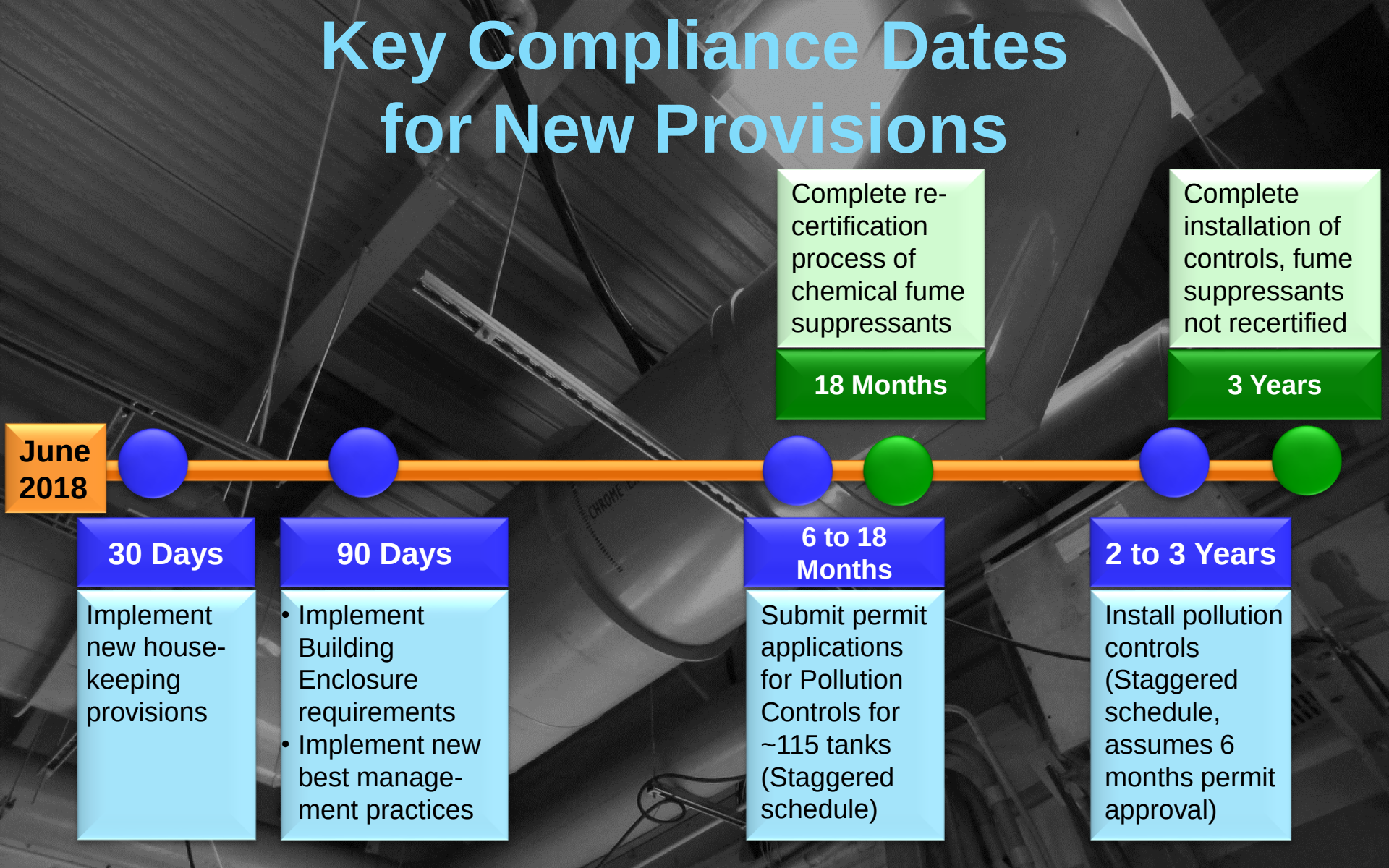
~75 tanks that will need pollution controls that are above the proposed emission limit

Periodic **source testing and parameter monitoring** of air pollution controls

Building enclosure requirements to minimize release of fugitive emissions

Enhanced housekeeping and best management practices

Key Compliance Dates for New Provisions



Ambient Monitoring

- Staff Recommendations
  - Address ambient monitoring in Proposed Rule 1480 – Toxics Monitoring (Fall 2018)
  - Incorporating ambient monitoring in PAR 1469 would delay PAR 1469 to late 2018
- Proposed Resolution language
  - Continued hexavalent chromium monitoring near Rule 1469 facilities; and
  - Consider monitoring near Rule 1469 facilities that are within 1,000 feet of schools and sensitive receptors

Schools and Sensitive Receptors

- Revisions to PAR 1469 to provide additional protection for schools and sensitive receptors
- Staff recommendations:
  - Maintain provision to close building openings facing a sensitive receptor that is within 100 feet
  - Add provision to close building openings facing a school that is within 1,000 feet
  - Revise trigger to require a Permanent Total Enclosure with negative air vented to pollution controls if:
    - An owner or operator fails to shutdown a tank after a failed smoke test or velocity test of the air pollution controls if the facility is within 1,000 feet of a sensitive receptor or a school
    - Other facilities are allowed 2 failures to shutdown tank over a 48 month period

Non-Toxic Alternatives

- PAR 1469 has provisions that address non-toxic alternatives to hexavalent chromium plating and anodizing operations
  - Additional year allowed for facilities converting to a non-hexavalent chromium alternatives
  - On-going compliance report requires identification of any non-hexavalent chromium alternatives
- Rule 1469 has lesser requirements for facilities using trivalent chromium

Non-Toxic Alternatives *(Continued)*

- Proposed Resolution language:
  - Report to Stationary Source Committee within 2 years:
    - A pilot study of non-toxic alternatives to hexavalent chromium plating and anodizing
    - A technology assessment of non-toxic alternatives to hexavalent chromium plating and anodizing; and
    - Based on results, consider rule changes to require certain facilities to transition to non-toxic alternatives
  - Support statewide efforts to phase-out hexavalent chromium
  - Seek funding sources to help facilities transition to non-toxic alternatives, where feasible
    - Inability to secure funding would not restrict the Board from any decision to require the use of non-toxic alternatives

Accelerate Re-Certification of Chemical Fume Suppressants

Staff Recommendation

Notify Facilities of the Status of the Re-Certification of Non-PFOS Fume Suppressants

July 2020

Installation of Pollution Controls if Fume Suppressant Not Certified

July 2022

Use Non-Toxic Alternative if Fume Suppressant Not Certified

July 2023

Accelerate Re-Certification of Chemical Fume Suppressants

Staff Recommendation

Notify Facilities of the Status of the Re-Certification of Non-PFOS Fume Suppressants

Jan 2020
6 months earlier

Installation of Pollution Controls if Fume Suppressant Not Certified

July 2021
12 months earlier

Use Non-Toxic Alternative if Fume Suppressant Not Certified

July 2022
12 months earlier

July 2023

European Union Ban on Hexavalent Chromium

- Staff obtained additional information regarding the EU REACH* program, which has provisions to allow the use of hexavalent chromium
  - Authorisations (i.e. exemptions) are allowed for up to 12-year “review” period to identify alternatives
  - Potential for additional time after initial review period
  - Authorisations have been issued for chromic acid anodizing and hard and decorative plating operations
  - Authorisations are broad – includes all downstream users
  - EU definition of functional decorative plating is very broad and includes architectural, automotive, and metal manufacturing

*Registration, Evaluation, Authorisation and Restriction of Chemicals

Key Remaining Industry Issues

- Comment
  - Emission reductions for certain requirements for building enclosures have not been quantified such as cross-drafts and other openings
- Response:
  - In lieu of a permanent enclosure vented to pollution controls, PAR 1469 requires lower cost provisions to minimize release of fugitive emissions
  - Ambient monitors have shown eliminating cross-drafts near high hexavalent chromium emitting tanks can significantly reduce ambient concentrations[1]
  - Found hexavalent chromium in wipe samples from roof openings near high hexavalent chromium emitting tanks[1]
  - Bulk samples from roof tops of buildings with high emitting hexavalent chromium tanks contained hexavalent chromium[1]

[1] Based on monitoring and sampling at Anaplex.

Key Remaining Community Issues

- Comments:
  - Immediate ban on the use of chemical fume suppressants for decorative chrome plating
  - Delay rule to require use of non-toxic alternatives to hexavalent chromium plating and anodizing processes
    - Installation of pollution controls now will be stranded assets
- Response:
  - PAR 1469 expedites the schedule to re-certify chemical fume suppressants
  - PAR 1469 will require installation of pollution controls on over 115 hexavalent chromium tanks
  - PAR 1469 provides additional time for facilities that commit to non-hexavalent chromium processes

Next Steps

- Staff recommendation
  - Set the Public Hearing in May 2018
  - Seeking input from the Stationary Source Committee