Registration Review of Copper Compounds (Case 4025)

Marina Interagency Coordinating Committee (MIACC) &
Anti-Fouling Strategies Workgroup (AFSWG) Meeting

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EPA's Mission for Pesticides

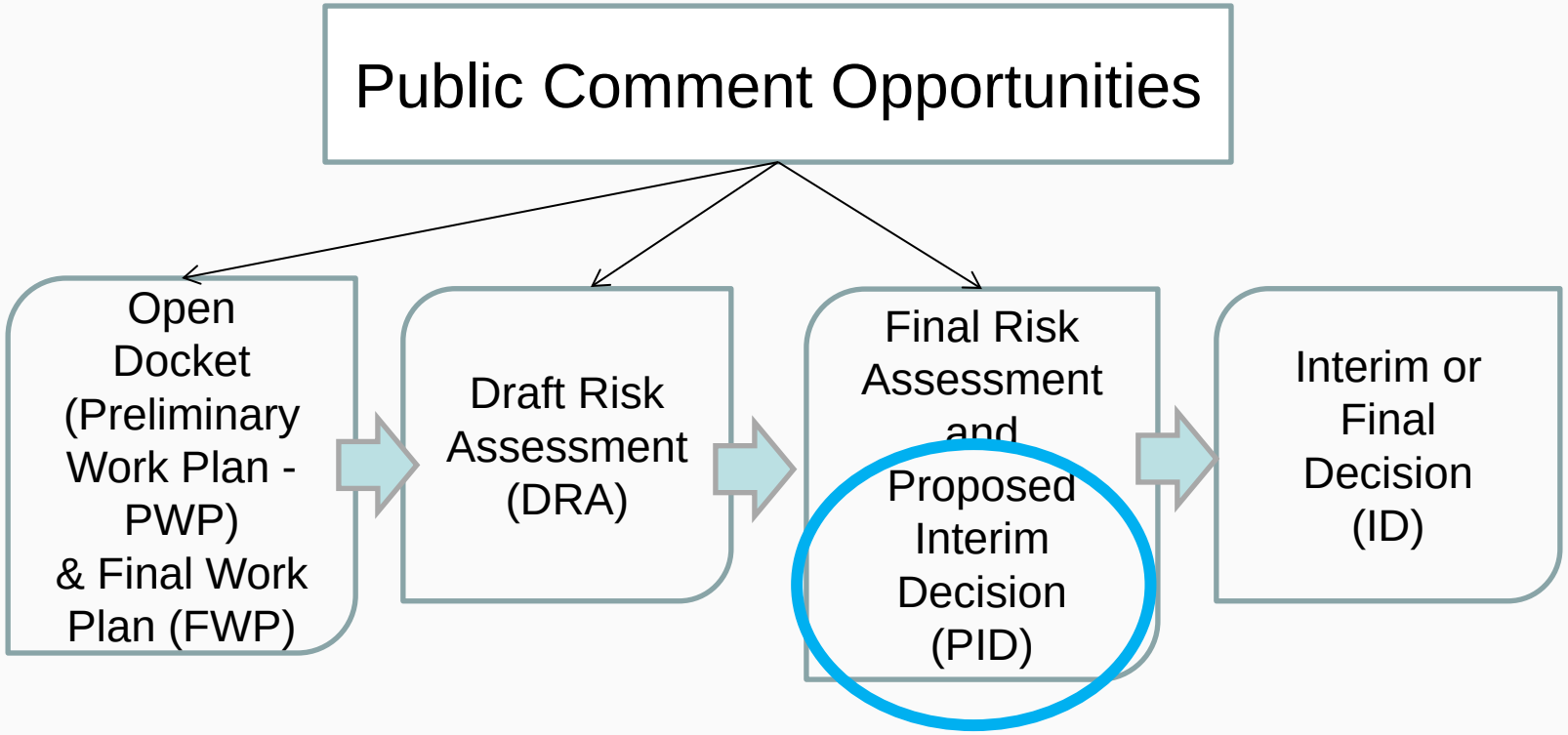
- Ensure that pesticides are safe and available to growers and other users
- Make best possible regulatory decisions to protect public health and the environment
- Be consistent with core principles
  - Sound science
  - Transparency
- For additional information, visit: http://www.epa.gov/pesticides

Registration Review of Pesticides

- Statutory Mandate – Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 3(g)
  - Requires review of each registered pesticide every 15 years
  - First round of registration review started in Oct. 2007

- Risk = Hazard x Exposure

Public Participation in the Registration Review Process



Coppers Case Status

Case Overview: Copper Compounds

- Copper has both antimicrobial uses and conventional (agricultural) uses

- Includes 19 copper compounds, 13 of which have antimicrobial uses:
  - Copper sulfate pentahydrate, basic copper carbonate, copper ammonium carbonate complex, copper hydroxide, chelates of copper citrate and copper gluconate, cuprous oxide, cupric oxide, elemental copper, copper ethanolamine complex, copper triethanolamine complex, EDTA copper salt, copper thiocyanate

- There are 400+ antimicrobial products registered for use in antifouling paints and coatings (AFCs), swimming pools, wood preservatives, materials preservatives, roofing shingles, and other uses.

All documents pertaining to the registration review of Copper Compounds (case 4025) can be found at http://www.regulations.gov/, Docket ID EPA-HQ-OPP-2010-0212

Copper Final Work Plan & Data Call-In

For antimicrobial uses, the Agency determined:

- Human health assessment- Exposure database is complete, no additional data needed.

- Ecological assessment- Data gaps were not identified for AFCs for the risk assessment. Risk could be modeled with MAMPEC[1], using the highest available leaching rate of registered AFCs.

1. Marine Antifoulant Model to Predict Environmental Concentrations (MAMPEC, version 3.0.1). For additional information on MAMPEC, visit: http://www.deltares.nl/en/software/mampec/

Copper Risk Assessments

- Human health- Qualitative assessment looked through open literature, no anticipated systemic toxicity associated with copper exposure from conventional or antimicrobial uses.

- Ecological- The Agency estimated that for copper-based AFCs, harm to non-target organisms can be minimized with leach rates under 6.3 µg/cm^2/day (for small, saltwater marinas).

Copper Proposed Interim Decision (PID)

For recreational boats under 65 feet, we propose to establish two leach rate caps:

1. Maximum short-term leach rate (1-14 days)
2. Maximum average daily leach rate (average of weeks 3-5)

To determine the two caps, the Agency proposes to call in leaching data for all copper AFCs because the leaching database is incomplete. Many paints exceed or are assumed to exceed the rate determined in the risk assessment.

Proposed Labeling Changes in Coppers PID

Description	Proposed Labeling Language Copper Compound Products	Placement on Label
End Use Products		
Restriction of use for antifoulant coatings not in compliance with future leach rate cap	**Antifoulant Coatings and Paints** "Prohibited for use on recreational boats and watercraft under 65 feet in length."	Directions for Use

Page 57, Coppers Proposed Interim Decision (US EPA 2017)

Next Steps

Access the document: http://www.regulations.gov/

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Public comment period open until **November 21, 2017**

Questions?

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