

Pentachlorophenol Status and Next Steps



May 2021

Presentation Agenda

- Status on Penta Production
- Penta EPA/FIFRA Reregistration
- Penta Phase Out
- Alternative treatments to Penta
- Next Steps

Penta Production Status

- KMG-Bernuth is the sole producer of Penta in North America
- 2019 - KMG announces plans to stop production of Penta by the end of 2021
 - Closing of production plant in Mexico
 - Closing of storage plant in Alabama
- 2020 – Gulbrandsen Chemicals announces the intent to purchase the registrations/production rights from KMG and construct a new Penta production plant in OrangeBurg, South Carolina

Penta Production Status cont.

- 2020 – SC House of Representatives, lobbied local community groups, passes legislation to prevent the production of Penta in SC
- 2020 – Gulbrandsen withdraws the proposal to purchase the registrations and construct the plant in SC
- To date – No other company has announced interest or intent to purchase existing Penta registrations
- Penta pole availability
 - Most company's - out of stock my Q1/Q2 2022
 - Stella Jones - indicates that they will have Penta pole stock in DF and WRC until the end of 2023

Penta EPA/FIFRA Reregistration

- EPA/FIFRA Registration – Required for the sale and use of pesticides
- Reregistration required at least every 15 years
- Penta's last reregistration was in 2008
- 2015 Stockholm convention lists Penta as a “persistent organic pollutant” and bans its use within 5 years, but... continues to allow its use for utility poles and crossarms
- July 2020, Health Canada's Pesticide Management Regulatory Agency propose to cancel registered uses of Penta

Penta EPA/FIFRA Registration Cont.

- December 2020 – EPA releases the “Pentachlorophenol Proposed Interim Registration Review Decision” – **Proposing the cancellation and phase out of all registered products containing Penta**
- EPA proposes 5 year phase out of Penta

Penta 5 Year Phase Out

- EPA is proposing that registrants must submit voluntary cancellation requests 2 years of the PID
- FIFRA process and utilization of existing stock utilized in the following 3 years
- Public comments have been submitted requesting this timeline be extended
- Currently VELCO is assuming these timelines only apply to the registrants and not utilities or existing utility inventories – However, this needs to be confirmed

Penta Alternatives

- 2 types wood preservatives

Oil-borne

- Pentachlorophenol (Penta or PCP)
- Creosote
- Copper Napthenate (CuN)
- 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one (DCOI)

Water-borne

- Chromated Copper Arsenate (CCA)
- Ammoniacal Copper Zinc Arsenate (ACZA)

Penta Alternatives Cont.

- Oil-borne options overview
 - Penta – Developed in the 1930's/Restricted Use Pesticide/Human health and environmental concerns/Proposed Phase out by EPA
 - Creosote – In use for over 150 years/Restricted Use Pesticide/Toxicity and worker safety concerns
 - CuN – Developed in 1889/General Use Pesticide/Proven track record of effectiveness
 - DCOI – Developed in 1989/Approved for Ground Contact in 2017/General Use Pesticide/Newer Pesticide – Not a lot of run time yet

Penta Alternatives Cont.

- Waterborne options overview
 - ACZA – Developed in the 1920's/Restricted Use Pesticide/Penetrates well/Long history of successful use/Dries and hardens – difficult to climb resulting in worker safety concerns
 - CCA – Developed in 1933/Restricted Use Pesticide/Penetrates well/Long history of successful use/Dries and hardens – difficult to climb resulting in worker safety concerns
 - However, CCA-ET is a relatively new option that includes a refined hydrocarbon oil emulsion that softens and lubricates the pole making it easier to climb

Penta Alternatives Cont.

- So what does all this mean?
 - It primarily boils down to four, but really three options for most rural utility companies that need to climb poles
 - Creosote – Probably not the best option in most circumstances
 - CuN – A very good option with proven history, there may be some cost and availability concerns
 - DCOI – Currently looks like very good option on paper, but does not have a proven track record at this point. Cost and availability be a concern – need more data on this
 - CCA-ET – A very good option with proven track record, but cost, availability and treatability of some species (DF) may be of concern – need more data on this

Next Steps

- Individual utilities – research the options and decide what is the best your needs
- VELCO – Still have more research to do, but CuN or DCOI stand out as front runners (CCA-ET is questionable at this point due to the concern about it's effectiveness on DF, but more information is needed on this)
- Pole suppliers capabilities and industry demands will likely identify a preferred option in the future

Pole decay at or above ground line level



Questions or Comments?

