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Copper Alloys: State-of-the-Art Engineering on the Agenda at Corrosion 2017 Marine corrosion

The development of copper alloys—from traditional applications to state-of-the-art engineering—will be described in a symposium at NACE International's Corrosion 2017 in New Orleans this March. The behaviour of these alloys in seawater, corrosion issues and methods of optimising performance will be under discussion at an accompanying Technical Exchange Group.

As part of the **Marine Corrosion: Past, Present & Future** symposia, from 10:25–10:50 on 29 March, Jim Michel of Copper Development Association Inc. will present a paper on copper alloys in marine service, from their roots in commercial and naval antiquity to the introduction of copper-nickels and nickel aluminium bronzes that are today amongst the most commonly-used engineering copper alloys. The direction of future developments will also be discussed.

The paper will cover the influence of refined composition, heat treatment and manufacturing practices that have optimised the properties of copper-nickels and nickel aluminium bronzes in terms of localised corrosion and erosion-corrosion resistance. It will also include lessons learned, and provide guidance on the importance of correct commissioning and shut down procedures to ensure the full capabilities of copper alloys are achieved.

TEG 523X Marine Corrosion of Copper Alloys—from 14:00–15:00 on 27 March, chaired by Dominique Thierry of the French Corrosion Institute—will provide an informal opportunity to disseminate new information and discuss existing experience and preventive strategies.

Copper alloys such as copper-nickels and nickel aluminium bronzes see wide use in sectors including marine, oil and gas, offshore renewables and thermal desalination plants. Their high corrosion and biofouling resistance means they are commonly used for piping, valves, pumps and heat exchanger tubing.

TEG attendees will present their own observations, and discuss papers presented in the wider meeting with a view to increasing participation and activity in future symposia.

For further discussion of copper alloys at Corrosion 2017, CDA Inc. will be exhibiting at Booth 1629. Technical experts will be on hand to answer questions and discuss methods of ensuring the best performance of copper alloys in a range of applications. The latest technical publications will also be available, free-of-charge.

Visit <u>www.coppernickel.org</u> for more information on copper-nickels, with a focus on their use in the marine environment.