



NEW MEXICO WATER COMMITTEE  
A COMMITTEE OF THE ROCKY MOUNTAIN SECTION OF AWWA



Rocky Mountain  
Section



## September 2020 Technical Noon Webinar

By Zoom Videoconferencing Technology  
(Registration is Required - See Details Below)

Wednesday September 16, 2020

12:00 – 1:00 p.m.

# Selenium Removal from Oil Refinery Wastewater Effluent

**Frank Huang, Ph.D.**

NM Institute of Mining and Technology

**ABSTRACT:** Frank will talk about the pilot testing of a selenium removal process at an oil refinery. The selenium concentration of the refinery's secondary effluent was observed to be as high as 200 ppb and exceeded the NPDES limit of 5 ppb. Several options, including discharging to the local POTW and deep-well injection, were considered for implementation to be in compliance with the permit. A pilot-scale treatment system integrating ion exchange and chemical adsorption, was tested on site for selenium removal. The system successfully reduced the selenium concentration in the secondary effluent to below 10 ppb. This talk will discuss the pilot-scale treatment processes, test results, projected costs, and issues encountered on site.

**SPEAKER BIOGRAPHY:** Dr. Frank Huang is a Full Professor in the Department of Civil and Environmental Engineering at New Mexico Tech. He received advanced degrees in both chemical and environmental engineering, and has 25 years of experience in water and wastewater treatment. For the past 7 years, he has focused his R&D effort on membrane development and applications for desalination and ZLD.

**REGISTRATION:** Register at: <https://www.rmsawwa.org/event/NMSeptember2020Webinar>  
Registration is limited to the first 100 participants. All attendees must pre-register for this webinar by Tuesday evening, 9/15/20 at 5:00 p.m. This is required to: A) prevent Zoom bombers from disrupting the meeting, and B) to maintain a record of those attending to satisfy training requirements for PE licensure or Water/Wastewater Operator Certification. Operators will be asked for NM Operator Certification number on the online registration form. Continuing education is only available in New Mexico.

**OCTOBER 21 WEBINAR:** Mike Hamman, Middle Rio Grande Conservancy District, will discuss rehabilitation of El Vado dam in northern, NM