

**IIS-069**  
**Heat-Treating Characteristics of Cu-Ni Hps 70w/100w Steel And Develop**  
**Compositions of Hp Steels With Yield Strengths Of 100- To 130-Ksi**  
**and Excellent Toughness**

**Robert Stout**

Distinguished Research Fellow, ATLSS Center, Lehigh University

**John Gross**

Distinguished Research Fellow, ATLSS Center, Lehigh University

**Industry Participants**

AISI, U.S.Steel, International Steel Group

**Abstract**

The specific project would involve treating end-quench bars of the eight experimental Cu-Ni steels at a wide range of cooling rates to establish the resultant microstructure and hardness, so that the results of various types of commercial heat treatments can be predicted.

In addition, the effect of increasing the nickel content from 0.75 to 2.50% will be investigated to determine the suitability of the higher nickel steel as an HP-120-W steel.