

JEFFERSON LAB'S ENGINEERING DIVISION PROFESSIONAL DEVELOPMENT PROGRAM

CRYOGENICS SEMINARS

An additional two cryogenics seminars are being offered as part of the Engineering Division's Professional Development Program. The seminars will address recent developments in cryogenics with significant implications in supporting technologies for the national science agenda. Jefferson Lab's engineers, technicians and all interested employees are invited to attend these presentations. Engineers from local industry and graduate engineering students enrolled in local universities are also invited. Both seminars will be held in the CEBAF Center Auditorium.

AUGUST 4, 1:30-3:00: COLD END PROCESS OPTIONS FOR NOMINAL 2-K EFFICIENCY IMPROVEMENTS

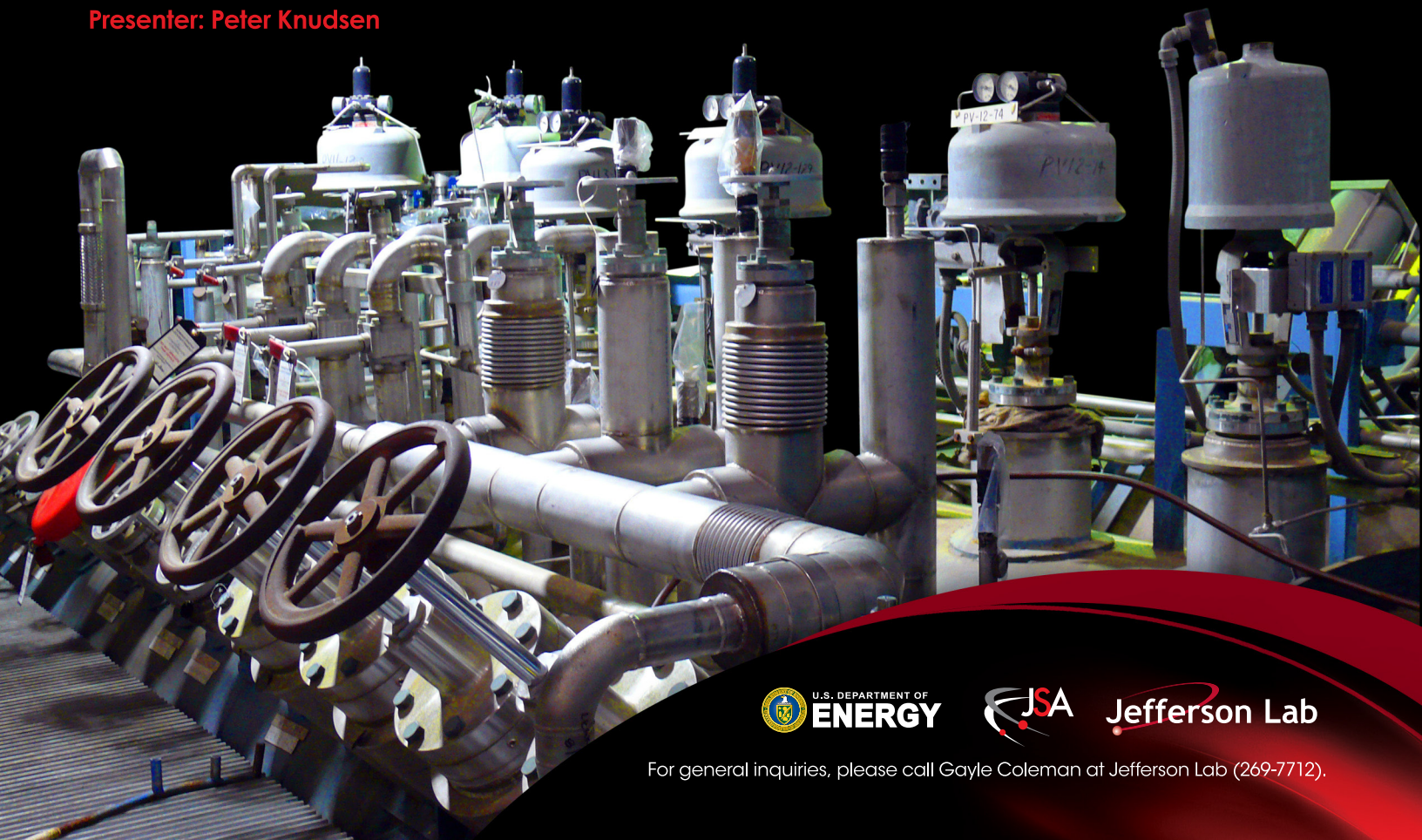
A proposal will be presented for a new cold end process that can improve the process efficiency and reduce the operating and capital costs on the order of 10% for a given 2-K load. To set the stage for discussing this new process, a brief review of conventional 2-K configurations will also be presented. The new process has possible implications for future projects at Jefferson Lab and the larger scientific community.

Presenter: Peter Knudsen

AUGUST 16, 1:30-3:00: JLAB'S 12 GEV COMPRESSOR SYSTEM AND DEVELOPMENT WORK

It does not operate at cryogenic temperatures and is often not seen as the most important component, but the compressor system is the "heart" of the cryogenic plant. Efficiency improvements to the ambient temperature compressor system are the key to significantly advancing the overall cryogenic plant efficiency. A number of modifications were made to the compressor systems for helium refrigerators at Jefferson Lab in support of the 12 GeV Upgrade, and also at Johnson Space Center for the testing of NASA's James Webb Telescope. These modifications are applicable for any oil flooded screw compressor application and are aimed at improving the compressor system efficiency, reliability and maintainability – all of which are essential to minimizing input power and reducing capital costs. These modifications and other major efforts to achieve further efficiency improvements and capacity increase will be discussed.

Presenter: Peter Knudsen



Jefferson Lab

For general inquiries, please call Gayle Coleman at Jefferson Lab (269-7712).