

Subject: Request to Vacuum Review Board
From: janeen@ligo-la.caltech.edu
Date: Tue, 08 Jan 2008 17:46:17 -0600
To: worden_j@ligo-wa.caltech.edu
CC: janeen@ligo-la.caltech.edu, coyne@ligo.caltech.edu

Dear John,

There's an issue I'd like you and the Vacuum Review Board to consider. It concerns the machining fluids allowed for use with in-vacuum metals.

Currently, we call out on all metal parts drawings the following note:

ALL MACHINING FLUIDS SHALL BE WATER SOLUBLE AND FREE OF SULFUR, CHLORINE AND SILICONE, SUCH AS CINCINNATI MILACRON'S CIMTECH 410 (STAINLESS STEEL).

The fluids that comply are expensive compared to regular machining fluids. All parts go through a regular clean and bake, per E960022, prior to installation in our vacuum chambers. Also, unless all surfaces are machined, this note does not protect against hydrocarbon and other contaminants from the stock material fabrication process.

Please consider waiving this requirement for small parts, say under 5 ft on any one side.

Janeen Romie