

Contribution submitted by Don Ballard, Coherent

1) General Questions: Based on my survey of the BUs that I have access to, we should request exemption for additional beryllium compounds. In our case it is Beryllium-Copper alloy.

2) Applications: Beryllium oxide (BeO) is being used in SSD and was addressed in my power point.

a) BeO used as expansion matched submounts for the horizontal arrays.

- There is no real alternative with the following properties: CTE matching, high thermal conductivity and being electrically isolating, which is needed for the Horizontal arrays.

b) Beryllium Copper is also being used because the design of our shutter includes features that make it its own return spring. Also, being copper helps dissipate heat if it gets hit by a laser beam. This is an EEE product (laser system). We could investigate using other materials, such as Stainless Steel (SS).

A SS shutter should be able to work as a spring but won't have the heat dissipation characteristics of copper. It is the heat dissipating property of the beryllium copper alloy that would make it difficult to replace.

3) Quantities and Ranges: Regarding usage of beryllium and its compounds, I do not have access to corporate wide usage but am guessing that it is relatively low.

I am not aware of any substitution of beryllium or its compounds at Coherent.

4) Emissions: I do not think that beryllium waste emission is an issue at Coherent. That said, I only have access to info that is restricted to a few BUs.