October 17, 2001

Mr. Daniel M. Hull
President
Principal Investigator for STEP II
CORD
601 Lake Air Drive
Waco, TX 76710

Dear Mr. Hull:

I am pleased to give my support to the STEP II project as a member of the Technical/Industrial or Educational Advisory Committee.

The severe shortage of properly trained laser/electro-optical (LEOT) technicians is well-known and widely-felt in industry and in governmental bodies such as the national laboratories. Often, people from other disciplines have been pressed into duty to make up for the LEOT shortfall. As a result, the technicians from other fields have lower productivity because they don't have a fundamental understanding of optics and lasers, or otherwise need greater talent and education (and therefore are more expensive) to overcome their lack of optics knowledge. Either way, using people as LEOT's who have not been "built for the task" costs money, which hurts their employers' competitiveness.

The need will be especially great in the coming years as Lawrence Livermore National Laboratory's National Ignition Facility (NIF) comes on-line. The sheer magnitude of the project, which will require hundreds of technicians knowledgeable in optics and lasers, is enough by itself to dent the current national output of technicians. This will undoubtedly exacerbate the abovementioned effects in industry.

The current set of CORD-produced material has performed well, and many of the Lab's current technicians have been trained with this material. However, the material's age is showing and does not reflect many of the current technologies and practices. I have reviewed CORD's first draft in revising the course materials (Fundamentals of Photonics course), and I believe that it has made a number of important steps forward. Continuing this process and extending it to include completion of the rest of the CORD curriculum is certainly in the best interest of the field and it is a task that CORD is uniquely positioned to perform.

The CORD-produced curriculum will not only improve the two-year college program, but will aid in vocationally-oriented education at the secondary level. I am currently teaching a pilot course in optics and lasers at Foothill High School in Pleasanton, California, believed to be only the second of its type in the country. The class aims to prepare students for LEOT training, to familiarize students with the field and to pique their interest, and to act as a "feeder" class for two-year college LEOT programs. The lack of a textbook is hampering development of this

class, but the Fundamentals of Photonics textbook, when finished, will be close to what is needed for a secondary-level vocational optics and lasers course. In my role on the Technical/Industrial Advisory Committee or on the Education Advisory Committee, I will be able to provide a testing area for the textbook (through my class) and to author material as required.

I look forward to participating in this important high-leverage project.

Sincerely,

Brian Bauman
Optical Engineer, Lawrence Livermore National Laboratory
Instructor, "Optics & Lasers" vocational course, Foothill High School, Pleasanton, CA