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## Status of CARIE facility design and construction

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Building new experimental facilities to house experiments is an expensive and time-consuming activity. Although usually less expensive, repurposing old experimental facilities to accommodate new ones has its own set of challenges with regard to obsolete equipment, adequacy of electrical power, radioactive shielding and cooling capacity. At Los Alamos National Laboratory (LANL), one such facility was previously used to provide a platform for Free Electron Laser (FEL) experiments that were completed 20 years ago. This paper explores the techniques and process to repurpose an existing experimental facility to accommodate the CARIE compact accelerator and the choices made to select and size equipment for success. Radio Frequency (RF) energy waveguide layout with vacuum calculation methods will be included as well as electrical power and radiation shielding requirements.

### Funding Agency

USDOE

### Footnotes

### I have read and accept the Privacy Policy Statement

Yes

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