

11th Department of Energy Laser Safety Officer Workshop



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Laser Safety Implementation at the Orion Laser Facility at AWE

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Summary

The Orion laser facility represents a major capital investment for AWE. There exists an obvious imperative to maximise the usage of this investment through ever greater operational efficiency. Since the integrated commissioning of the facility's systems began in 2010, the operational processes have been refined to deliver more efficient usage of the laser. However at the beginning of an experimental campaign, a number of shots are often required to commission plasma diagnostics or resolve some uncertainty in the physics before the main thrust of the experiment can begin.

It was established that greater operational efficiency could be achieved if there was a smaller laser capability available in order to resolve such outstanding issues before the campaign starts on the main laser system. Such a capability could also be used for smaller-scale experiments, which do not warrant the use of the full Orion system.

The available space within the Orion facility is limited; this has presented issues with regard to safety systems requirements.

The presentation will:

- give an overview of the proposed laser,
- highlight the safety issues and potential solutions. (Laser, HV, EMP and Radiological).
- detail where we are and the way forward.

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Session Classification: Session 4