Sandia National Laboratories

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2026 DOE LASER SAFETY OFFICER WORKSHOP – CALIFORNIA SITE OPERATIONS

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U.S. DEPARTMENT of ENERGY | NNSA National Nuclear Security Administration

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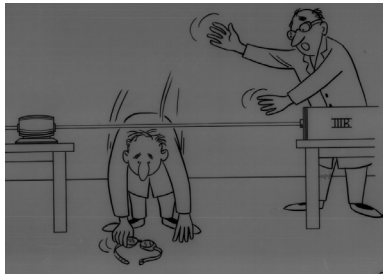
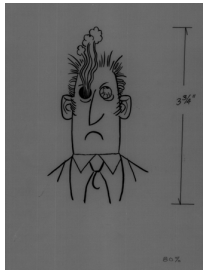
SAND2026-20562C

LASERS AT SANIDA CALIFORNIA -7 DECADES OF INNOVATION

- Lasers at California – 100+ active lasers, 25 + laser control areas. Users collaborate with SNL/NM, LLNL, LBNL-ALS, university, industry and government partners.
- Combustion Research Facility
  - 1980 – present. The 1973 Oil Crisis spurred private industry/academia/DOE collaboration to improve fuel efficiency. Lasers play crucial role in particle dynamics, spectroscopy and research.
  - User Facility - University and Foreign Nationals present to promote collaboration with partners.
  - DOE and National Security Work. Numerous post-doctorate, graduate and undergraduate researchers collaborate with and are mentored by staff.
- EUVL
  - Extreme Ultraviolet Lithography - Improve and reduce integrated circuit sizes. First functional sub-micron transistor 1996.
- Future- Additive Manufacturing
  - – Metal/UV Resin 3-D printing -rapid design and prototyping.

LASERS AT SANIDA CALIFORNIA -7 DECADES OF INNOVATION

- Laser Safety is part of Occupational Health and Safety
  - Two part-time staff dedicated to laser safety. Perform hazard evaluations, inventory, assessments, surveys, acquisitions and disposal.
  - Active laser safety committee.
  - Staff collaborate with DOE- EFCOG Community of Practice, AIHA/ASSE, ANSI-Z136 revision committees and LIA.
  - We would like to thank Sandia Management with their continued support!
  - *Laser safety has always been a part of Sandia California – Three cartoons from 1970 training manual.*