NA--SS-SNL-2000-2009-0005 FINAL

Occurrence Report
After 2003 Redesign

SNL Division 2000

(Name of Facility)

Laboratory - Research & Development

(Facility Function)

Sandia National Laboratories - SS | Sandia National Laboratories

(Site) (Contractor)

Name: Robert A. Burkhart
Title: ES&H Project Leader **Telephone No.:** (505) 844-6497

(Facility Manager/Designee)

Name: LUCERO, JEWELEE A
Title: REPORTING ADMINISTRATOR **Telephone No.:** (505) 845-4727

(Originator/Transmitter)

Name: Sylvia Saltzstein **Date:** 06/09/2009

(Authorized Classifier (AC))

1. Occurrence Report Number: NA--SS-SNL-2000-2009-0005

Intentional Defeat of Laser Interlock in Bldg. 700

2. Report Type and Date: FINAL

	Date	Time
Notification:	05/06/2009	16:28 (ETZ)
Initial Update:	05/21/2009	12:33 (ETZ)
Latest Update:	06/11/2009	11:11 (ETZ)
Final:	06/11/2009	11:11 (ETZ)

3. Significance Category: 3

4. Division or Project: 2000/Neutron Generator Facility

5. Secretarial Office: NA - National Nuclear Security Administration

6. System, Bldg., or Equipment: Starwelder Laser System/Bldg. 700, Rm. 1054

7. UCNI?: No

8. Plant Area: Tech Area I

9. Date and Time Discovered: 05/04/2009 13:00 (MTZ)

10. Date and Time Categorized: 05/04/2009 15:00 (MTZ)

11. DOE HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

12. Other Notifications:

Date	Time	Person Notified	Organization
05/04/2009	15:40 (MTZ)	Gary Schmidtke, FR	DOE/SSO
05/04/2009	13:00 (MTZ)	Neil Lapetina	2732

13. Subject or Title of Occurrence:

Intentional Defeat of Laser Interlock in Bldg. 700

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14. Reporting Criteria:

10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)

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15. Description of Occurrence:

On 4/30/09, at approximately 1030 hrs, a laser welder in Bldg. 700, rm. 1054, was found to have an optical interlock intentionally blocked with tape. The purpose of the interlock is to ensure that the operator's hands are positioned properly before allowing operation of the equipment in order to avoid inadvertent exposure to the enclosed Class IV laser.

There was no employee exposure or injury as a result of this occurrence and the person who actually defeated the interlock could not be identified.

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16. Is Subcontractor Involved? No

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17. Operating Conditions of Facility at Time of Occurrence:

Normal

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18. Activity Category:

03 - Normal Operations (other than Activities specifically listed in this Category)

19. Immediate Actions Taken and Results:

Plans for equipment operation were halted and cognizant management was notified.

Other orgs with similar equipment were notified and that equipment was checked.

20. ISM:

4) Perform Work Within Controls

21. Cause Code(s):

A4B1C01 - Management Problem; Management Methods Less Than Adequate (LTA); Management policy guidance / expectations not well-defined, understood or enforced
A1B5C02 - Design/Engineering Problem; Operability of Design / Environment LTA; Physical environment LTA

22. Description of Cause:

Critique/Fact Finding and Cause Analysis was Performed 5/5/09

The Cause Analysis method was Systemic Factors

A4B1C01 - The worker who bypassed the interlock apparently did not understand the limits of his authority in this matter or the need to check the operability of the interlock before each use.

A1B5C02 - The equipment was designed for a purpose other than that for which it was being used. This might have led to workability issues for the process underway and the need for equipment modifications to avoid bypassing interlocks in order to accomplish the work.

23. Evaluation (by Facility Manager/Designee):

EOC Event # 11077

DOE/SSO Early Notification Date & Time:
EOC - 5/4/09 - 15:35
FR - Veronica Martinez - 5/4/09 - 15:40

UPDATE 5/21/09
Re-categorization. Recent discussions with DOE (involving similar events and site-wide implications) have indicated the need to increase the severity category of this occurrence from SC(4) to SC(3).
END OF UPDATE

This event did not result in any injuries, equipment damage, or process down-time. The abnormal situation was detected before the equipment was needed. Although no equipment design improvements were identified, this event provided an

opportunity for management to reinforce the policies in place and strengthen the communication pathways with workers and ES&H personnel.

24. Is Further Evaluation Required?: No

25. Corrective Actions

(* = Date added/revised since final report was approved.)

1. Department 2700 - All Department Managers within Center 2700 will discuss this occurrence and their expectations toward compliance with procedural requirements at their next regular department staff meetings. (A4B1C01)

Target Completion Date: 05/30/2009	**Completion Date:** 05/30/2009

2. Department 2700 - Evaluate potential equipment modifications to make interlock more reliable and reduce need to defeat it. (A1B5C02)

Target Completion Date: 05/30/2009	**Completion Date:** 05/30/2009

26. Lessons Learned:

27. Similar Occurrence Report Numbers:

None

28. User-defined Field #1:

29. User-defined Field #2:

30. HQ Keyword(s):

01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous)
01E--Inadequate Conduct of Operations - Operations Procedure Noncompliance
01R--Inadequate Conduct of Operations - Management issues
01T--Inadequate Conduct of Operations - Willful Violation
08C--OSHA Reportable/Industrial Hygiene - Industrial Hygiene Exposure
08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance
11F--Other - Inadequate Design
12B--EH Categories - Conduct of Operations
14E--Quality Assurance - Work Process Deficiency
14F--Quality Assurance - Design Deficiency

31. HQ Summary:

On April 30, 2009, a Building 700 laser welder was found to have an optical interlock intentionally blocked with tape. The purpose of the interlock is to ensure that the operator's hands are positioned properly before allowing operation of the equipment in order to avoid inadvertent exposure to the enclosed Class IV laser. There were no injuries or laser exposure

as a result of this discovery. The person who actually defeated the interlock could not be identified. Management notifications were made and equipment operation plans were halted. Other Laboratory facilities will be notified to review the interlocks on similar laser welders.

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32. DOE Facility Representative Input:

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33. DOE Program Manager Input:

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34. Approvals:

Approved by: Robert A. Burkhart, Facility Manager/Designee
Date: 06/11/2009
Telephone No.: (505) 844-6497