

Work Planning and Control Worksheet

Div. ID #:	Revision No.	Date:	11/15/2011
Content ID #:	Content ID Rev. No.		

SECTION 1 SUMMARY

Project Title:	Esnets Network Support Activities		
WCD Preparer Name	Linda Winkler		
Approving Division:	MCS	Approving Department/Section:	MCS
Authorizing Division (Lead Division):	MCS	Lead Department/Section (if applicable):	
Lead Division Reference No. (if applicable):		Rev. No.:	
Work Location (Building/Room, etc.):	221/D130	Estimated Start Date:	11/1/2011
		Estimated End Date:	12/31/2012
Designated Person in Charge (TBA [to be assigned] if unknown)	Linda Winkler		
		Work Control Document Type (Choose One)	
		Yes	Type 1 (skill of the worker)
		No	Type 2 (ANL-886 as the WCD)
		No	Type 3 (procedure-controlled)
		Required Sections	
		1, 3, 4	
		1, 2, 3, 4, 5, 6	
		1, 3, 4	
Overall hazard level for this work	Simple Work		
Moderate	No		

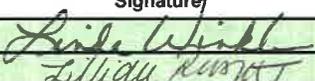
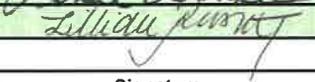
Work Scope Summary (attach or reference work instructions or procedures):

Computer room work will be performed on communications and networking equipment owned and operated by ESnet/LBL. Lifting and installing equipment into racks, unplugging instrument, use of electric hand tools, removing parts with hands only. Work involves exposure to Class 2 and 3a lasers. Electrical work involving 60 Hz AC power equipment with voltage 15-50 volts and 50-250 volts where short circuit current is less than 10,000 amps. Work involves R&D electronic equipment with DC waveform where voltage is <15volts where power is at least 100 watts but less than or equal to 1000 watts and where voltage is at least 15 volts but less than 100 volts and power is greater than 1000 watts.

SECTION 2 APPROVAL

NOTE: This section is not required if this document being used for skill of the worker (Type 1) or as a hazard analysis and control selection for procedures (Type 3). Review and approval signatures not appearing here must appear on the higher level document (e.g., procedure or skill of the worker classification form).

Through my signature below, I assert that extensive and systematic hazard identification relating to this work has been performed. The hazard boundaries have been defined by this document and by abiding within the controls stated herein, the risk associated with the work is deemed acceptable. Signatures denote that all comments and issues have been addressed.

Concurrence	Badge	Print Name	Signature	Date
WCD Preparer:	32357	Linda Winkler		12/5/11
ESH Coordinator*:	32307	Lillian Ruscic		12/5/2011

Approval	Badge	Print Name	Signature	Date
Approval Authority				

*For VH, H, and M WCDs, the division ESH Coordinator signature is required. For all WCDs, the division may add rows to this section for division-specific review signatures.

A current copy of the approved and authorized Work Control Document (WCD) must be available to those conducting work activities; electronic or paper copies are acceptable. Work may not be performed until the Work Control Document has been completed and approved, procedures have been approved, and the work has been authorized.

SECTION 3 REQUIRED PERMITS

Activities requiring Permits – A Yes answer requires contacting SME per permit procedures

Yes/No	
No	ANL-206 Radiological Work Permit
No	ANL-211 Energized Electrical Work Permit
No	ANL-499 Occupancy Permit Request
No	ANL-609A ANL Laser Operating Permit
No	ANL-609B ANL Temporary Laser Operating Permit
No	ANL-612 Movable Structure and Storage Trailer/Container Siting Permit
No	ANL-614 Confined Space Entry Permit
No	ANL-780 Confined Space Entry Permit for PRCS that Requires Lockout/Tagout Only
No	FD-48 Open Flame Operating Permit
No	FMS-006 Digging Permit
No	Institutional Biosafety Committee (IBC) Approval
No	Institutional Review Board (IRB) Forms/Approval (Human subjects in research)

SECTION 4 HAZARD ANALYSIS, CONTROLS, AND SME SIGNATURES

Summary of Tasks and Controls

Task	Description	Controls for Task	Separate HA?
1			No
2			No
3			No
4			No
5			No
6			No
7			No
8			No
9			No
10			No

Detailed Hazard Analysis and Control Selection

For SMEs providing signatures: Through my signature below, I certify that extensive and systematic hazard identification relating to this work has been performed, within the area of my expertise (e.g., electrical safety). By following the procedures contained within this document, the work will be within acceptable hazard boundaries. Signatures denote that all comments have been resolved.

Hazard Present? (Y/N)	Hazard	Task/Hazard Relationship and Hazard Description	Hazard Level	Graded Approach – Hazard Levels (select one)	Hazard-Specific Application of Controls	SME Signature/Date (for HL = VH or H)
Physical Hazards						
No	Blind Penetrations			select hazard level descriptor.		
No	Electrical - Batteries and Battery Banks			select hazard level descriptor.		
No	Electrical - Capacitors and Capacitor Banks			select hazard level descriptor.		
Yes	Electrical AC at 60 Hz		L	Zero voltage verification less than 250 volts		
No	Electrical AC other than 60 Hz			select hazard level descriptor.		
Yes	Electrical DC		L	Voltage less than 100 volts and power less than 1000 watts		
No	Elevated Work			select hazard level descriptor.		
Yes	Ergonomics		L	Hand tool usage that does not require forceful exertion		
No	Fire			select hazard level descriptor.		
No	Flammable and combustible chemicals (liquid or solid)			select hazard level descriptor.		
No	Ground Penetrations			select hazard level descriptor.		
Yes	Hand tools		L	Non-powered hand tools; common hand tools, portable electric tools <240V, pneumatic or battery powered tools.		
No	High Pressure			select hazard level descriptor.		
No	High or low Temperature			select hazard level descriptor.		
No	High vacuum			select hazard level descriptor.		
No	Hoisting-Rigging			select hazard level descriptor.		

Yes	Laser		M	Class 3A and 3R	PPE Required With wavelengths at or above 1300nm and potential launching power of +17dBm, safety eyewear is required when decoupling any fiber, on the telecommunications gear or in the patch-panels. An Optical Density (OD) rating in excess of 1.5 and an effective wavelength filtering of 850-1720nm. Visible light transmission (VLT) must be 50% or higher.	
No	Limited egress			select hazard level descriptor.		
No	Machine tools and equipment			select hazard level descriptor.		
No	Magnetic Field (static)			select hazard level descriptor.		
No	Material Handling			select hazard level descriptor.		
No	Non-ionizing radiation			select hazard level descriptor.		
No	Overhead work or obstructions			select hazard level descriptor.		
No	Protruding or falling objects			select hazard level descriptor.		
No	Sharps-non-biological			select hazard level descriptor.		
No	Vision			select hazard level descriptor.		
No	Welding/cutting/brazing/grinding			select hazard level descriptor.		
No	Other					
Hazardous Working Environment						
No	Combustion engine exhaust gas			select hazard level descriptor.		
No	Confined space			select hazard level descriptor.		
No	Cryogenic materials			select hazard level descriptor.		
No	Dust			select hazard level descriptor.		
No	Excavation, Trenching and Directional Borings			select hazard level descriptor.		
No	Excavations deeper than 5 feet			select hazard level descriptor.		
Yes	Noise		L	Continuous noise less than 85 dBA or where verbal communication is affected		
No	Outdoor exposure			select hazard level descriptor.		
No	Sewage and waste			select hazard level descriptor.		
No	Stored energy - hydraulic, thermal, pneumatic, mechanical			select hazard level descriptor.		
No	Other					
Radiological Hazards - Contact HP for all work involving radiological hazards, regardless of hazard level.						
No	Airborne radioactivity/ cutting, welding, grinding, etc. on radiological material			select hazard level descriptor.		
No	Radiation exposure			select hazard level descriptor.		
No	Removable contamination			select hazard level descriptor.		
No	Other					
Chemical Hazards						
No	Asbestos			select hazard level descriptor.		
No	Asphyxiant gas (simple)			select hazard level descriptor.		
No	Beryllium			select hazard level descriptor.		

No	Carcinogenic chemicals			select hazard level descriptor.		
No	Explosives or highly reactive (e.g., alkali metals) chemicals			select hazard level descriptor.		
No	Flammable gas			select hazard level descriptor.		
No	Hydrofluoric acid			select hazard level descriptor.		
No	Hydrogen			select hazard level descriptor.		
No	Industrial chemicals such as: solvents, strippers, paints, adhesives, industrial cleaners, pesticides, etc.			select hazard level descriptor.		
No	Oxidizers			select hazard level descriptor.		
No	Perchloric acid or perchlorate salts			select hazard level descriptor.		
No	Silica dust generation			select hazard level descriptor.		
No	Strong acids or bases			select hazard level descriptor.		
No	Toxic chemicals			select hazard level descriptor.		
No	Toxic gas			select hazard level descriptor.		
No	Toxic metals			select hazard level descriptor.		
No	Other					
Engineered Nanomaterials						
No	Engineered Nanomaterials (ENM)			select hazard level descriptor.		
No	Other					
Biological Hazards						
No	Bloodborne pathogens or potentially infectious material			select hazard level descriptor.		
No	Contaminated materials-biological			select hazard level descriptor.		
No	Etiologic agents			select hazard level descriptor.		
No	Other					
Human Subjects as Research Participants						
No	Human subjects as research participants			select hazard level descriptor.		
Other						
Yes	Measuring & Test Equipment Used?		L	M&TE used	Calibrate M&TE as required per LMS-PROC-50	
No	Other hazards not identified elsewhere?			select hazard level descriptor.		
No	Transportation of Research Samples?			select hazard level descriptor.		
No	Special Considerations?			select hazard level descriptor.		
No	Other					
Environmental Impacts						
No	New or Revised Env. Review Form			select hazard level descriptor.		
No	Waste generation			select hazard level descriptor.		
No	Other					
Emergency Management						
No	Chemicals where any NFPA 704 rating is 3 or 4 and the liquid quantity is ≥5 gal or solid quantity is ≥ 40 lbs					
No	Use of or work with radioactive materials in quantities where the Hazard Category 3 sum of the fractions exceeds 1 per LMS-PROC-45?					

No	Biological hazards requiring IBC review?		
No	High pressure hazards at hazard level high or very high?		
Nuclear Safety Review			
No	Work in Building 200, 212, 306, or 331.		No further action required.

SECTION 5 ANNUAL REVIEW Annually, this WCD must be reviewed and affirmed by the approval authority to document that the WCD is current (Type 2 Work only). Signature denotes that the approval authority has reviewed the package, that it is current, and that no revisions are required (attach additional pages if more signature lines are needed).	End of Year, Reviewed and Affirmed	
	Signature	Date

SECTION 6 FINAL STATUS/END OF WORK

PIC (Print Name)	Signature	Date

Designated Person (Print Name)	Signature	Date

ESH Coordinator (Print Name)	Signature	Date

SECTION 7 WORK AUTHORIZATION

Work is within safety boundaries, and facility/area configuration and mode of operation allows work. Personnel access requirements have been met, pertinent hazards communicated to co-located personnel, work does not conflict with other work, and the appropriate permits are completed. Controls have been implemented to reduce the hazard level, where applicable. Work is authorized for the time period(s) specified. All work authorizations are valid for a defined period not to exceed one year. If changes are made to the work package, the work must be re-authorized.

Start Date	End Date	Badge #	Print Name	Signature of Work Authorization Authority

SECTION 8 PRE-JOB BRIEFING DOCUMENTATION

Documentation of Pre-Job Briefing(s) given for the work should be inserted into the table below. A pre-job briefing is required for very high and high hazard level activities. Pre-job briefings must be repeated if (a) the work control document changes, (b) the work control document is generic in nature and requires specific tailoring for each instance of implementation of the work activity (e.g., work activities conducted in campaigns such as waste packaging), or (c) if required by local procedures (e.g., plan of the day meetings) or the work package itself.

Date	Instructor Name	Badge #	Signature

SECTION 9 WORKER SIGNATURES¹

The work control document (WCD) is required reading for all participants in the project. All participants must sign the work control document. Additional pages may be attached as needed.

I have read and understand the WCD and will work within the established controls. I have attended a pre-job briefing if the hazard level of this work is high or very high (as documented on the WCD).

I understand that I not only have stop work authority, but also an obligation to stop work and notify the person in charge (e.g., job supervisor) in the event that the work cannot be completed as required by the WCDs or if an unanticipated event occurs.

Worker Name (Printed)	Signature	Badge #	Date Signed	Date Pre-Job Brief Attended ²
Patrick Dorn		221297	12/2/2011	N/A
Jon DUGAN		205582	12/2/2011	N/A

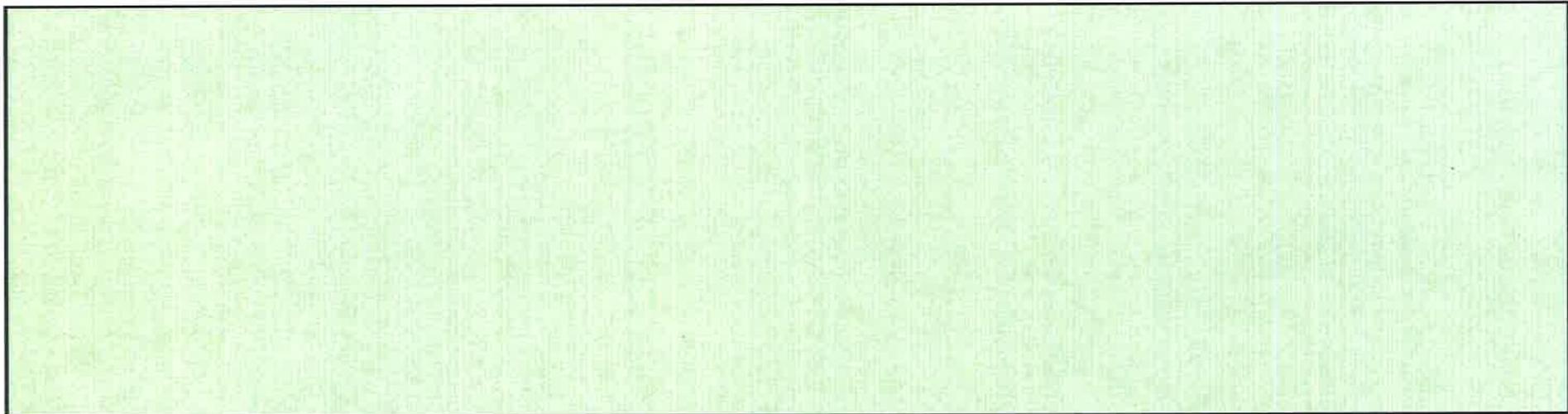
¹ This list must be signed by all participants in the work before the work starts. All new participants are required to sign before working to a WCD. New signatures are required annually and when significant changes are made to a WCD.

² If pre-job not required, enter "NA" in this column.

SECTION 10 WORKER FEEDBACK

Documentation of worker feedback, required when the overall hazard level is High or Very High may be written in this space. Divisions may also choose to use this space to record the results of post-job briefings, if used. Attach additional pages if necessary.

Date	Feedback Documented by (Print Name)	Signature



Note: Sections 7, 8, 9, and 10 are not required per LMS-PROC-64; divisions may choose their own methods to document work authorization, pre-job briefings, worker signatures, and feedback. However, these sections are provided for those divisions that wish to utilize a single form for work control. If divisions are not using these sections, they may choose to hide these rows for the purpose of printing.