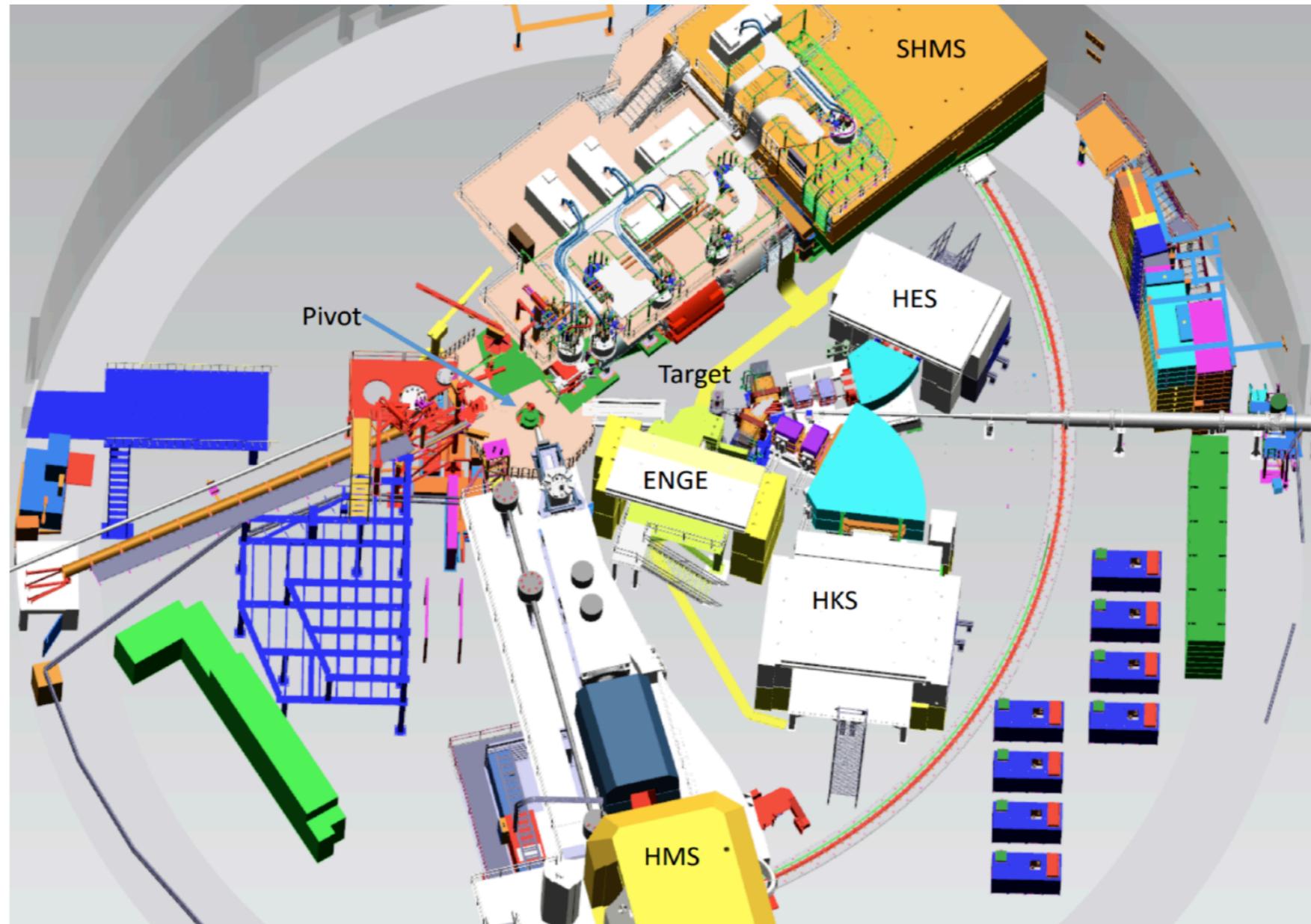


ePass Policy and List of Required Documents



JLab Hypernuclear Collaboration Meeting
May 16th, 2025
William Henry

Trainings

View your training status

Please see the list below of frequently required courses and their term expiration. Please visit the web based training link to access trainings.		
Course	Skill Code	Term Expiration
Annual Security Awareness	GEN034	Annually (January)
ES&H Orientation	SAF100	3 years (36 months) from date taken
Cyber Security Awareness	CST001	Annually
Working Safely at Jefferson Lab During Elevated MedCon Levels	SAF003	Currently Required
Physics Division Work Governance	SAF116kd	Annually (January)
Oxygen Deficiency Hazard	SAF103	2 years (24 months) from date taken
RadWorker 1 Classroom	SAF801C	Current unless expires for 2+ years
RadWorker 1 Test Schedule with Radcon or walk-in at ULO in CC (see onsite schedule)	SAF801T	2 years (24 months) from date taken
RadWorker 1 Practical (Schedule with Radcon)	SAF801P	Current unless expires for 2+ years
Hall A Safety	SAF110	B. Michaels
Hall B Safety	SAF111	E. Pasyuk and D. Insley
Hall C Safety	SAF112	J. Beaufait
Hall D Safety	SAF113	M. Dalton
General Access RWP	SAF801kd	Annually (December)

Trainings required to get you to Hall C

GEN034: Annual Security Awareness
 SAF100: ESH Orientation
 CST001: Cyber Security Awareness
 SAF116kd Physics Division Work Governance
 SAF103 Oxygen Deficiency Hazard
 SAF800: GERT
 SAF801C: Rad Worker 1
 SAF801T: Rad Worker Test
 SAF801P: Rad Worker Practical
 SAF112: Hall C Safety
 SAF801kd: General Access RWP

Electrical Trainings

Table 1. How to determine the training requirements for electrical safety and lock out / tagout

<i>If the answer to questions below is yes, you are required to successfully complete the course(s) to the right of the question.</i>			
		Title	Code
1.	Does the work involve non-electrical hazardous stored energy (e.g., compressed gasses, hydraulic or pneumatic, thermal, chemical, or mechanical)?	Lockout/Tagout (LOTO)	ESC007
		Safety Practical Application	ESC008
2.	Does the person in this position operate electrical equipment other than using a light switch, for example, turning appliances or common office equipment on or off?	Basic Electrical Safety	ESC001
3.	Is the person a TJNAF employee, subcontractor, or user who performs all modes of work on Class 1 electrical or electronics equipment?	Basic Electrical Safety	ESC001
		LOTO	ESC007*
		Safety Practical Application	ESC008*
4.	Is the person in this position responsible for energizing and de-energizing electrical equipment at the source of electrical power (such as operation of circuit breaker, knife switch, etc.)?	Basic Electrical Safety	ESC001
		Arc Flash & PPE	ESC002
		Safe Switching of Electrical Equipment	ESC005
		Electrical Contact Release	ESC006
		LOTO	ESC007
		Electrical Safety Practical Application	ESC008
5.	Is the person a TJNAF employee, subcontractor, or user who performs work on Class 2 or higher electrical or electronics equipment?	Basic Electrical Safety	ESC001
		Arc Flash & PPE	ESC002
		Electrical Work Site Safety	ESC003**
		Work Planning & Documentation	ESC004**
		Safe Switching of Electrical Equipment	ESC005
		Electrical Contact Release	ESC006
		LOTO	ESC007
		Electrical Safety Practical Application	ESC008
Capacitor Safety	SAF603B.KD		

* If you are required perform hazardous energy control or administrative/configuration control, the LOTO Competency (ESC007 & ESC008) is required to be current.

** ESC003 & ESC004 are still included in the QEW competency and are being removed from LMS due to the implementation of ePAS. Credit will be given upon request to maintain competency.

Non-NRTL Equipment

NRTL: Nationally Recognized Testing Laboratory



If your equipment does not have one of the above, it must be inspected and registered with electrical safety.

Non-NRTL Equipment

NRTL: Nationally Recognized Testing Laboratory



Non-NRTL Inspection Guidelines

Objective

To ensure that all new and legacy electrical and electronic Non-NRTL equipment is compliant with DOE standards.

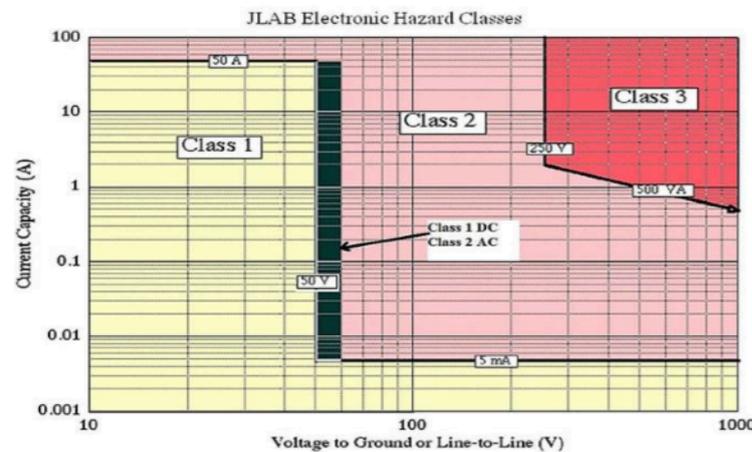
Inspection Process

Engineers/Technicians are to submit the following applicable information for electrical and electronic equipment inspections through the Non-NRTL database

<https://misportal.jlab.org/equipment/registrations>

- Schematics
- Build of Materials (BOM)
- Location
- Operational Safety Procedures (OSP)
- Any other requested documentation

Class 1 Electrical Equipment - requires a field inspection after installation.



Class 2 & 3 Electrical Equipment – Stationary and Portable/mobile equipment requires a bench inspection before installation and a field inspection is required after installation for

stationary equipment.

After the equipment is approved, the electrical inspector will place a QR code label on the component, a green QR code for class 1 electrical/electronic



equipment and a blue QR code for class 2 & 3 electrical/electronic equipment. The QR code information is based on information in the Non-NRTL database.



will be given to class 1 Non-NRTL Equipment



will be given to class 2 & 3 Non-NRTL Equipment

A Green QR Code
A Blue QR Code

Note

New equipment- classified as any electrical or electronic equipment that is newly designed, fabricated or modified except for the replacement of like-for-like parts in or after 2021.

Legacy equipment -classified as any electrical or electronic equipment designed, fabricated or modified in or prior to 2020.

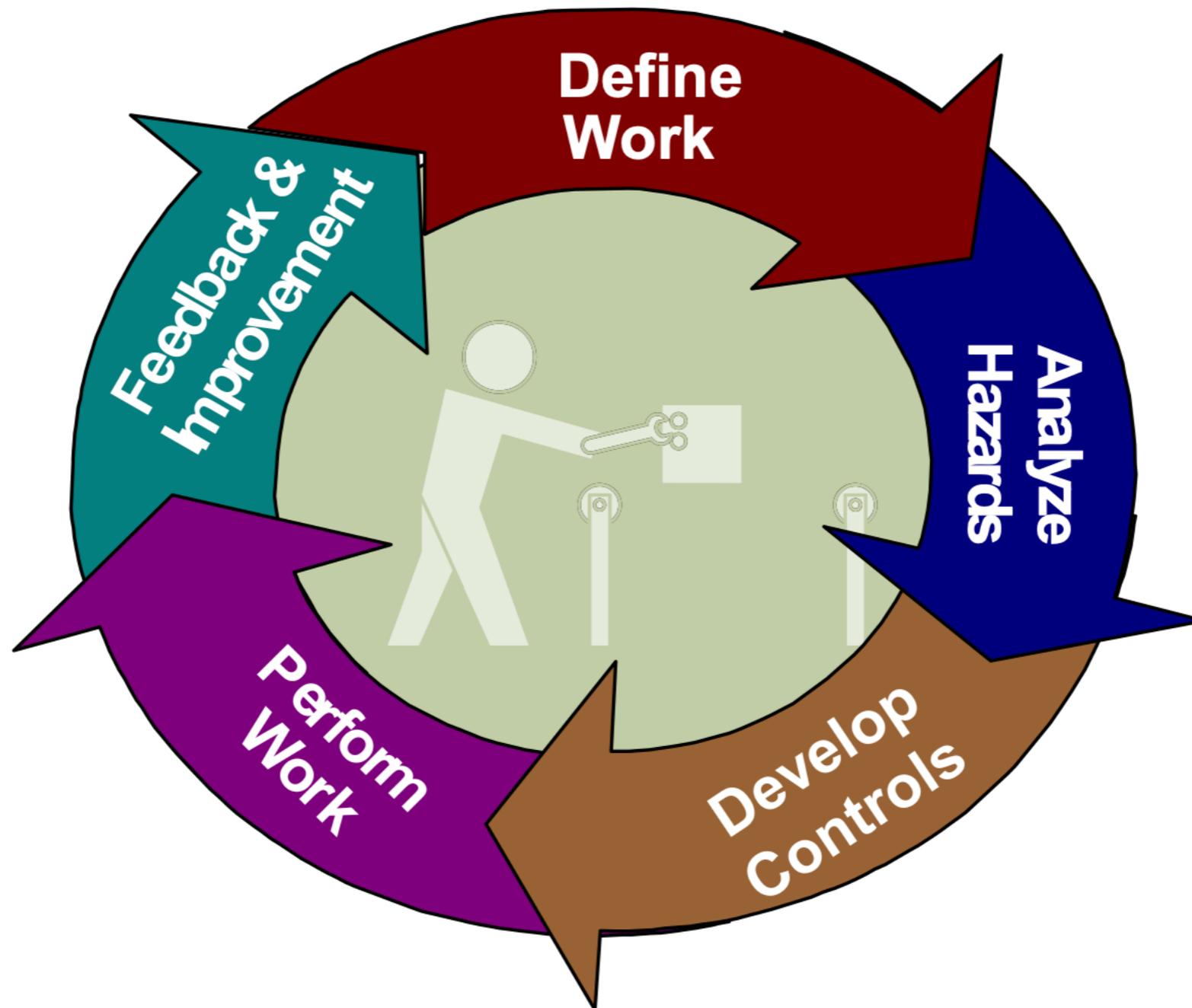
Multiple units- multiple unit of equipment that are precisely the same, may have 1 set of documents upload for all pieces. All units must be entered separately specifying the unit's individual location.

Courtesy Inspections: Device Owners may request a courtesy inspection to verify the equipment is within the regulation standard.

References:

<https://www.jlab.org/ehs/ehsmanual/6220.htm>

Integrated Safety Management Awareness Training



EPAS

1. Why ePAS?

a. Short Answer

ePAS provides a single portal for uniform hazard identification and control across the lab
ePAS provides for work review, release, and authorization by line-management
ePAS facilitates the pre-job briefing process

b. Long Answer

In 2019, Jefferson Lab experienced three notable hazardous energy events that resulted in an overhaul of the way the lab recognizes and addresses protective measures. The events pointed to an informal and sometimes inaccurate approach to identifying hazards and controls. This caused an erosion of safety margins and an increase in incidents at the lab. After a thorough investigation by the lab, by an independent review committee empaneled by JSA, and by the Department of Energy's Office of Enforcement, the lab was required that the lab put in place a plan to ensure such notable events do not recur. After a measured evaluation, the lab decided to purchase the program ePAS (Electronic Permit Administration System), that improves, simplifies and centralizes lab processes. We are rolling it out...

External review/oversight groups have been following the Lab's progress on ePAS implementation:

"Roll out of ePAS is critical to establishing a common risk/safety framework and needs to become a common management expectation through the supervisor level". (3/23 JSA Operations and Safety Committee), "Accelerating ePAS adoption is critical to advancing integrated risk assessment and mitigation" (Ops and Safety Committee FY 22 Assurance Review), and Ops& Safety Committee FY23 Assurance Agenda: "Continued progress on ePAS system for hazard assessment and work planning deployment".

More recently three
more notable
RadCon events



Permit to Work

RE-PRINT



Jefferson Lab	JLab-PTW-7111 PERMIT TO WORK
----------------------	---

PERMIT DETAILS

Permit Request No:	JLab-PR-7111	Permit Prepared By:	William Henry
Work Group:	HALLC	Issue Date:	04/30/2025 14:13
Area:	Bldg 23 - Experimental Staging	Expected Expiry Date:	09/ 1/2027 16:00
Task Number:		Organisation:	PHALLC
Project Title:		Outage:	
Account Code:			
Has Simple LOTOs:	No		
Notes:			
Special Requirements:			

PLANT & WORK

Title:	Hypernuclear Drift Chamber Commissioning
Primary Plant Item:	23 - EXPERIMENTAL STAGING
Work Scope	
Job Description:	Hypernuclear Drift Chamber Commissioning. Repair, preparation, and testing of drift chambers for the hypernuclear collaboration. Tasks include, repairing broken wires, HV test, powering detector, cosmic testing, and connecting to a Data Acquisition (DAQ). Operation includes a supply of Argon/CO2 from a pressurized gas cylinder.
Tools & Equipment:	
Equipment Number	Description
23	23 - EXPERIMENTAL STAGING

CONTROL CERTIFICATES

Certificate#	Description	State	Issue Date

ATTACHED DOCUMENTS

Name	Doc Type	Attached Date

APPROVALS

I confirm that the control measures specified on this permit and the Task Hazard Analysis (and the references attached) are sufficient and that I have reviewed the work as specified on this permit and authorize it to proceed.

PTW Issuer Sign: Date:

This Permit applies only for the occasion specified. No person may leave the site with this JLab-PTW-7111 in his or her possession.

Task Hazard Analysis

RE-PRINT



Task Hazard Analysis Checklist
PERMIT No: JLab-PTW-7111

Summary			
Site:	Jefferson Labs	Responsibility Group:	Physics
Area:	Bldg 23 - Experimental Staging	Issue Date/Time:	
Title:	Hypernuclear Drift Chamber Commissioning		

Work Scope	
Job Description:	Hypernuclear Drift Chamber Commissioning. Repair, preparation, and testing of drift chambers for the hypernuclear collaboration. Tasks include, repairing broken wires, HV test, powering detector, cosmic testing, and connecting to a Data Acquisition (DAQ). Operation includes a supply of Argon/CO2 from a pressurized gas cylinder.
Tools & Equipment:	
Functional Location	Description
23	23 - EXPERIMENTAL STAGING

Define Work

Task Details				
Item No	Task Description	Work Categories	Hazards Identified	Control Measures
1 Repair and maintenance of drift wire chambers				
1.1		• Moveable Apparatus - Hall Equipment	Moveable - Pinch Points	
1.2		• Moveable Apparatus - Hall Equipment	Moveable Apparatus - Electrical	Administrative • A qualified electrical worker is required for resetting panel breakers
1.3		• Moveable Apparatus - Hall Equipment	Moveable Apparatus - Impact to Personnel	Administrative • Prior to movement of moveable apparatus, warn people working in immediate area and utilize spotters, if required • Flashing lights will be visible, and horns will sound when spectrometer is moving
1.4		• Machine Tool - Other	Over exertion due to manual material handling	Engineering • Utilize material lifts / mechanical assist devices to move materials
1.5		• Machine Tool - Other	Slips, trips, falls - Machine Tools	Administrative • Ensure that the area is cleaned after completing work • Ensure that the work area is orderly and that there are no tools or parts that could be dislodged and fall or roll

Friday, May 16, 2025 13:26

Printed by: William Henry (7431)

Page 1 of 7

Analyze Hazards

Develop Controls

Before starting work, a prejob brief must be completed. And Documented





Pre-Job Brief Checklist

The location of the Pre-Job Brief should be as close to the work location as possible to make evident the configuration of the space, the conditions in which the work is to take place, and any co-location of work.

The Pre-Job Brief should provide employees with expectations and guidance relative to the job task assigned.

Scope of Work

- Project or Task Deliverables
- Project or Task Timeline
- Completion Expectations

Hazard Identification

- Pre-job hazard assessment
- Ask questions to determine if all hazards have been identified
- Verify identified hazards are captured in the work control documents

Procedures, Protocols and Controls

- Confirm the the Permit to Work is approved
- Review applicable procedures, protocols, or controls
- Verify all team members understand procedures
- Review applicable work controls documents and permits
- Review emergency response plans, stop work and back out procedures

Role Clarification

- Tasks clearly assigned to each team member with defined roles and responsibilities
- Each team member knows where their role fits in within the team and task
- Team leader provides opportunity for feedback and open discussion
- Discuss how information should be communicated and who to contact in case of emergencies
- Emphasize individual responsibility for safety and adherence to safety protocols

Training and Competency

- Ensure all team members have completed necessary safety training
- Verify that team members have the skills and competencies required for their roles
- Check that all necessary certifications are up to date.

Record Keeping

- Document the pre-job brief

Project:		Location:	
Name:		Date:	

Reference 3240 Appendix T3: Job Briefings

EPAS: To-do

		Commissioning	Installation	Running	Repairs Maintenance
HKS			Hall Techs and Engineers	Procedure!!	
	Magnets				
	TOF				
	Drift Chambers	Complete			
	Water Cerenkov				
	Aerogel Cerenkov				
HKS					
	Magnets				
	TOF				
	Drift Chambers	Complete			
ENGE					
	Magnets				
	TOF				
	Drift Chambers	Complete			
	SciFi				
	Alpha Source				

EPAS will be required for commissioning, installation, running and repairs for all subsystems

Safety Docs

Available on Hall C Webpage and Github

Run Information - Jan 2025 - Aug 2025

- LAD Shift Sign-up (Read-only Shift Schedule)
- R-SIDIS Shift Sign-up (Read-only Shift Schedule)
- Hall C Electronic Logbook
- Run Safety Documents
 - Conduct of Operations
 - Experiment Safety Assessment Document
 - Radiation Safety Assessment Document
 - SAF112 Training/Emergency Response Guidelines
- Shift Worker Information and Howtos
- Accelerator Status
- Hall C Live Status

<https://www.jlab.org/physics/hall-c>

The screenshot shows the GitHub repository page for JeffersonLab/hallc-osp. The repository is public and has 20 branches and 5 tags. The commit history shows a merge pull request #14 from WmHenryTemple/LAD, merged 2 days ago. The file list includes:

File/Folder	Commit Message	Time Ago
run	Roughly move into Hall A style dir structure and add build s...	10 years ago
scripts	Fix \GITINFO branch issue with underscores	6 years ago
src	LAD update	2 days ago
.gitignore	Add vim temp files to .gitignore	9 years ago
.latex2html-init	Initial commit of legacy Hall C Operations Manual	11 years ago
README.md	Updated README.md	2 years ago
TODO	Start a TODO	9 years ago
c_operman.tex	Create blank controls and analysis sections	10 years ago
doit	Add the generic portion of the ESAD and turn on ESAD cre...	10 years ago

<https://github.com/JeffersonLab/hallc-osp>

COO: Conduct of Operations

Conduct of Operations for Hall C
E12-11-107, E12-06-104, E12-24-001
January 15, 2025

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5.7 Accelerator Operations Hall Liaison	12		
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<https://github.com/JeffersonLab/hallc-osp>

COO: Conduct of Operations

Special Procedures examples:

Powering down magnets for hall access

Working near Enge and vacuum windows

New hazards in hall (SAF112)

Staffing when beam not available

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Experiment Safety Assessment Document (ESAD)
for
Experimental Hall C Base Equipment

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ESAD

Experiment Safety Assessment Document (ESAD)
for
Experimental Hall C Base Equipment

- **ESAD needs to identify all hazards and controls for each subsystem**
- **Should be straightforward to copy/paste hazards and controls from commissioning EPAS's**

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RSAD: Radiological Safety Analysis Document

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7	DECOMMISSIONING and DECONTAMINATION of RADIOACTIVE COMPONENTS.....	4
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1 DESCRIPTION

This RSAD covers the series of experiments scheduled for the spring-summer of 2025 in Hall C.

Three experiments will run during this period.

- **E12-11-107:** In Medium Nucleon Structure Functions, SRC, and the EMC effect
- **E12-06-104:** Measurement of the Ratio $R=\sigma_L/\sigma_T$ in Semi-Inclusive Deep Inelastic Scattering
- **E12-24-001:** Measurement of the Nuclear Dependence of $R=\sigma_L/\sigma_T$ in Semi-Inclusive Deep Inelastic Scattering

E12-11-107 will measure semi-inclusive deep inelastic scattering off the deuteron by “tagging” the DIS scattering with high momentum recoiling protons or neutrons emitted at large angle relative to the momentum transfer.

E12-06-104 will perform measurements of the ratio of longitudinal to transverse cross sections in pion electroproduction. The emphasis will be on measurements in the so-called semi-inclusive deep inelastic scattering region, with extensions into the exclusive region.

E12-24-001 will make limited exploratory measurements of a possible nuclear dependence of R in SIDIS to support hadron attenuation measurements. If a nuclear dependence is observed, this could be a sign of novel physics and would suggest further studies are merited. PAC52 approved 7 days to measure SIDIS from carbon and copper targets using the HMS and SHMS in Hall C. These data, in combination with the proton and deuteron data from the above E12-06-104 will allow precise determination of the nuclear dependence of R in SIDIS.

Proposals and additional information can be found at the web pages for [E12-11-107](#), [E12-06-104](#), and [E12-24-001](#) experiments, and the [Hall C Wiki](#).

2 SUMMARY and CONCLUSIONS

The boundary dose accumulation due to this run in Hall C is estimated to be approximately 4 mrem, i.e., about 40% of the annual design goal. Dose rates averaged over the run time are expected to be below the alert threshold of 200%, with the expectations that the dose rates both inside the Hall and at the boundary will be typical for the experiments in Hall C. Radiation levels will be continually recorded and periodically checked by the Radiation Control Department (RCD) to ensure that the site boundary goal is not exceeded. Radiation hazards associated with

What is required from collaboration?

- 1) Brief description of experiments
- 2) Beam time on each target with radiation length, beam energy, current, time, etc (next slide)

RSAD: Radiological Safety Analysis Document

	Experiment numbers	Hall: C	name of liaison: William Henry							
	E12-11-107 LAD (40 Days)									
	E12-06-104 R-SIDIS (40 Days)									
	E12-24-001 nucR-SIDIS (7 Days)	E12-11-107 LAD (40 Days)			LAD Total			40.00		
Parameter	Unit	3 pass commisioning			5 pass production			3 pass production		
setup number		1	2	3	4	5	6	7	8	
run hours (100% efficiency)	days*	1.00	1.00	0.50	35.00	1.50	1.00	1.37	13.67	
beam energy	GeV	6.40	6.40	6.40	11.00	11.00	11.00	6.40	6.40	
beam current	uA (CW)	20.00	60.00	10.00	5.00	40.00	60.00	60.00	60.00	
polarization	%	N/A	N/A	N/A	N/A	N/A	N/A			
exp/target ID number		3a	6	8	3	5	6	1	2	
purpose		calibration	calibration	calibration	physics	dummy	calibration	physics	physics	
target material (1)		LH2	C	Cu	LD2	Al	C	LD2	LH2	
target thickness	mg/cm2	1420.00	2200.00	774.00	3240.00	340.00	2200.00	1620.00	710.00	
target material (2)										
target thickness	mg/cm2									
target material (3)										
target thickness	mg/cm2									
cryo target window material		Al			Al			Al	Al	
cryo target window thickness	mg/cm2	137.00			137.00			137.00	137.00	

Critical Beamline aperature: 3.9 cm @ 5.57 m

RSIDIS NOTES:

3.125 days for checkout, kinematic and pass changes

C, and Cu running taken from Table 2 of <https://misportal.jlab.org/pacProposals/proposals/1>

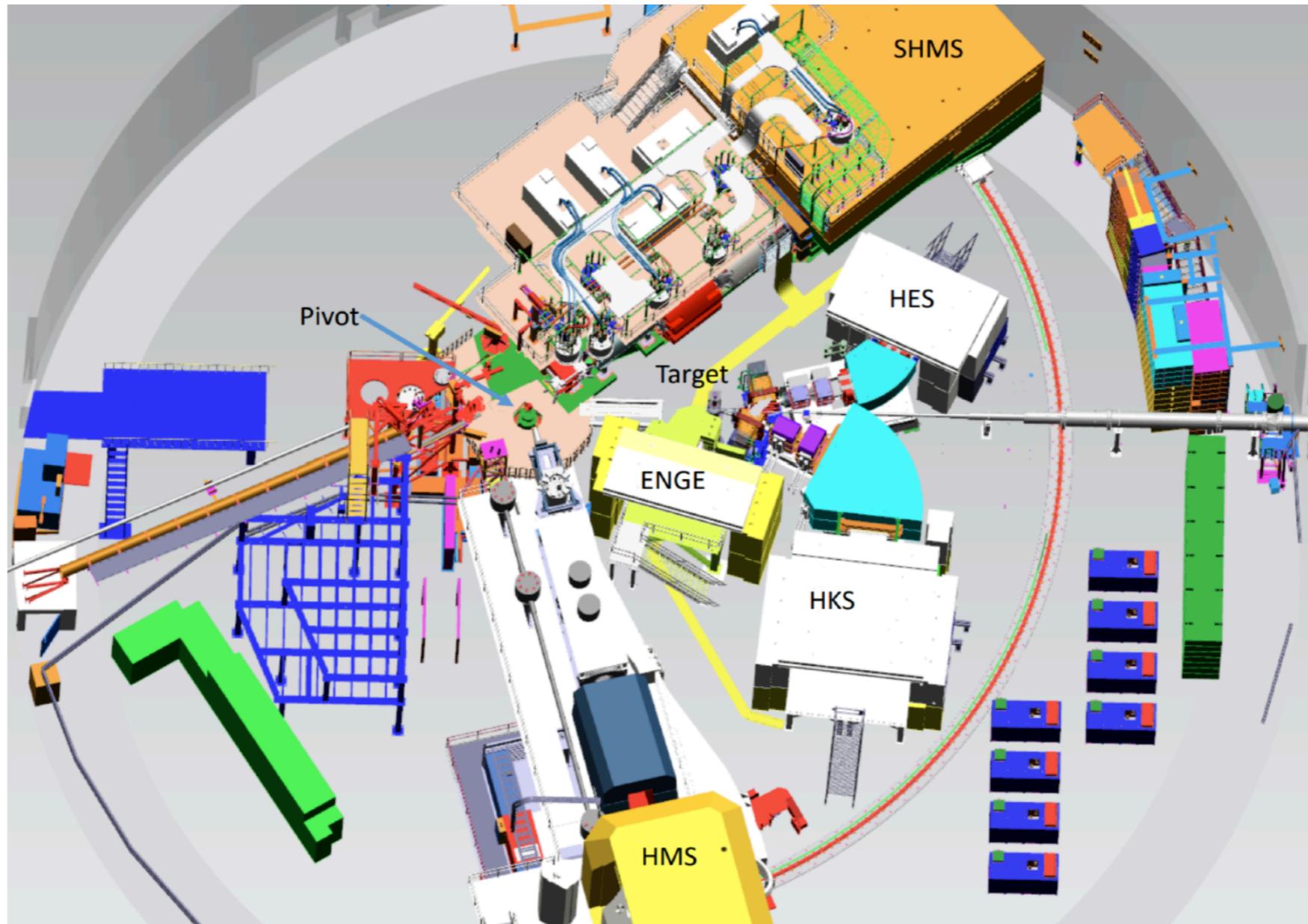
LH2 running taken from <https://hallcweb.jlab.org/elogs/R-SIDIS+Experiment/4>

LD2 and dummy runs were determined from ratio to LH2 runs found in proposal <https://www>

Total days was orig. 24 production + ~ 4 days setup/Moller = 28 days. Scaled up LH2, LD2, and Al days to get 40 PAC days

Target ID	Target	mg/cm2
1	10 cm LD2	1620
2	10 cm LH2	710
3	20 cm LD2	3240
3a	20 cm LH2	1420
4	10 cm dummy	340
5	20 cm dummy	340
6	optics 5 foil	2200
7	3% C	1300
8	6% Cu	774
9	1.5% Al	363
10	Carbon Hole	-

Documentation and Safety



JLab Hypernuclear Collaboration Meeting
Feb 12, 2026
William Henry

Safety Docs: EPAS

HOW MANY PHYSICISTS DOES IT TAKE TO CHANGE A LIGHT BULB?

ELEVEN. ONE TO DO IT AND TEN TO CO-AUTHOR THE PAPER.

[Link To "Notable Event" full fact finding report](#)



LESSONS LEARNED

FML-25-1112: Unexpected Voltage Presence While Replacing an LED Bulb

Summary

Lesson ID	Status	Doc ID	Priority	Safety Related	Source	Location	Originator
1278	OK	2026-JLAB-1278	Caution	YES	TJNAF NE	TJNAF	Mary Jo Bailey (mbailey)

Issued	Approved By	Approved On
11/20/2025 3:32 pm	Mary Jo Bailey (mbailey)	2/3/2026 7:53 am

Contact	Queued Emails	Sent Emails	Viewings
Kent Hammack, Director of Facilities Management and Logistics, Hammack@JLab.org	611	0	3 times

Rating
★★★★☆

Statement of Lessons Learned

Two Qualified Electrical Workers (QEWs) were assigned to change an LED bulb. They completed the necessary work control documents, including a Permit to Work, and applied Lockout/Tagout (LOTO) to the circuit panel using the posted schedule, and then verified with a working voltage meter. Still, the bulb flickered, indicating the circuit was live. No injuries were reported, but work was stopped to reassess the situation.

Lesson Learned	"FML-25-1112: Unexpected Voltage Presence While Replacing an LED Bulb" View this email in your browser FML-25-1112: Unexpected Volt...	Inbox	2/3/2026
Lesson Learned	"Avoiding Experience-Based Confirmation Bias During Lockout/Tagout and System Breaching - Hanford" View this email in your browser Av...	Inbox	1/13/2026
Lesson Learned	"PHY-25-1114-ACA: More than 10 Lead Bricks Were Moved in Hall A Without the Appropriate Review and Approval" View this email in your...	Inbox	1/8/2026
Lesson Learned	"FML-25-1027: Employee Receives a Minor Electrical Shock While Removing a Lamp From a Fixture" View this email in your browser FML-2...	Inbox	12/5/2025
Lesson Learned	"CFO-25-1027: Employee Received Medical Treatment Beyond First Aid" View this email in your browser CFO-25-1027: Employee Received ...	Inbox	12/1/2025
Lesson Learned	"COO-25-0826: Multiple Radiation Control Violations (Hall A, Test Lab) " View this email in your browser COO-25-0826: Multiple Radiation ...	Inbox	11/6/2025
Lesson Learned	"Fermilab - Arc Flash after Plugging Welder into a 480V Extension Cord" View this email in your browser Fermilab - Arc Flash after Plugging...	Inbox	11/3/2025

Safety Docs: EPAS

Goal is to live here



Current EPAS



Current EPAS

TYPE	NUMBER PRIMARY PLANT ITEM	ICONS	START DATE	EXPIRY DATE	TITLE	LOCATION	WORK GROUP	RECIPIENT	STATE
PTW	JLab-PTW-9749 23 - EXPERIMENTAL STAGING	 	Feb-05-2026 11:41	Feb-03-2029 22:00	PMT checkout with Beta Source	Bldg 23 - Experimental Staging	HALLC	William Henry	On Issue
PTW	JLab-PTW-9716 23_1 - EXPERIMENTAL STAGING FLOOR 1	 	Feb-02-2026 11:12	Feb-24-2028 16:00	PMT repair with epoxy and optical grease	Bldg 23 - Experimental Staging	HALLC	William Henry	On Issue
PTW	JLab-PTW-7664 23 - EXPERIMENTAL STAGING		Jun-16-2025 08:53	Jun-08-2028 16:00	Hypernuclear PMT based detector commissionir	Bldg 23 - Experimental Staging	HALLC	William Henry	On Issue
PTW	JLab-PTW-7111 23 - EXPERIMENTAL STAGING		Apr-30-2025 14:13	Sep-01-2027 16:00	Hypernuclear Drift Chamber Commissionir	Bldg 23 - Experimental Staging	HALLC	William Henry	On Issue
PTW	JLab-PTW-9492 23 - EXPERIMENTAL STAGING	 	Jan-05-2026 16:24	Mar-10-2027 16:00	load Wire chamber into repair assembly	Bldg 23 - Experimental Staging	HALLC	Jerry Nines	On Issue
PTW	JLab-PTW-6883 23 - EXPERIMENTAL STAGING		Mar-31-2025 16:51	Apr-15-2027 16:00	Hypernuclear test set up in ESB	Bldg 96 - Experimental Hall C	HALLC	Jerry Nines	On Issue



Pre-Job Briefing/Checklist

- Pre-Job Checklist must be performed before work started under a PTW
- Perform Electronic Pre-job Brief at start of work
- Paper copy completed daily

Electronic Version

PRE-JOB SAFETY BRIEFINGS NEW BRIEFING

Pre-job Brief Checklist

Title Person leading the briefing*

Location of the briefing Date

Participants ePAS Number(s)

Categories

Display Wall or Info Screen UPS Battery Replacement

Brief description

Attendance Sheet

Upload a photo of the sign-up sheet (required)*

no files selected

Paper Version

	<h3>Pre-Job Brief Checklist</h3>
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The location of the Pre-job Brief should be as close to the work area as possible to make evident the configuration of the space, the conditions in which the work is to take place, and any co-location of work.

The Pre-job Brief should provide employees with expectations and guidance relative to the job task assigned.

Scope of Work defined in the work control document and outlines the responsibilities, timelines, and expectations for a project or task

- Project or Task Deliverables
- Project or Task Timeline
- Completion Expectations

Hazard Identification process of communicating potential hazards associated with an assigned project or task

- Pre-job hazard assessment
- Ask questions to determine if all hazards have been identified
- Verify identified hazards are captured in the work control documents

Procedures, Protocols and Controls governing documents and work practices related to the project or task

- Confirm the Permit to Work is approved and on issue
- Review applicable procedures, protocols, or controls
- Verify all team members understand procedures
- Review applicable work control documents and permits
- Review emergency response plans, stop work and back out procedures

Role Clarification process of assigning and clearly defining roles and responsibilities for both individual and group projects

- Tasks clearly assigned to each team member with defined roles and responsibilities
- Each team member knows where their role fits within the team and task
- Team leader provides opportunity for feedback and open discussion
- Discuss how information should be communicated and who to contact in case of emergencies
- Emphasize individual responsibility for safety and adherence to safety protocols

Training and Competency knowledge acquisition methods built around specific skills needed to perform their roles

- Ensure all team members have completed necessary safety training
- Verify team members have the skills and competencies required for their roles
- Check that all necessary certifications are up to date

Record Keeping provide a record of the team's participation

- Document the pre-job brief

Project or Job Title		Location	
Brief Provided By		Date	

Reference 3200 Appendix T1: Job Briefings

New Hall C Wiki Page

The screenshot shows a Wikipedia-style page for 'Hypernuclear Experiment in Hall C'. The page is titled 'Hypernuclear Experiment in Hall C' and is a redirect from 'Hypernuclear Experiment'. It features a navigation sidebar on the left with links like 'Hall C JLab Page', 'Wiki Main Page', and 'Analyzer'. The main content area is divided into several sections: 'Contents' (with a table of contents), 'Physics motivation' (listing experiments like $^6_\Lambda\text{He}$, $^9_\Lambda\text{Li}$, $^{11}_\Lambda\text{Be}$), 'Experiment Readiness' (listing 'Hypernuclear ERR' and 'Detector Checkout in ESB'), 'Meetings' (listing 'Collaboration Meeting', 'Strategy Meeting', 'Core Member Meeting', 'Onsite Weekly Meeting'), 'Equipment' (listing 'MSO44 Oscilloscope manual', 'ENGE TOF', 'PMT XP2262B datasheet', 'Drift Chambers', 'Amplifier/Discriminator Card Datasheet'), 'Detector', 'Maintenance and commissioning' (listing 'ELOGs are here' with links to HKS Hodoscope, HES Hodoscope, ENGE Hodoscope, HKS Drift Chamber, HES Drift Chamber, and DAQ and Software), 'Documents', and 'Safety' (listing 'Conduct of Operations (COO) (2005)', 'Experiment Safety Assessment Document (ESAD) (2009)', 'Hall C Worker Safety Awareness Training (SAF112)/Emergency Response Guide', 'Experiment', and 'Radiation Safety Assessment Document'). On the right side, there are sections for 'Theses' (listing several Master's and Ph.D. theses), 'Publications' (listing several papers), and 'Links' (listing 'Hall A Hypernuclear Wiki' and 'ELOG').

Summary

- Understand required trainings for all tasks
- All work must be defined under an EPAS. Identify hazards. Develop controls
- COO: Minimal changes required. Need to identify special procedures.
- ESAD: Straightforward assuming all hazards have been properly identified under EPAS
- RSAD: Requires a short description of experiments and spreadsheet with detailed beam time on each
- Hall walkthrough: Not discussed here but will need to be updated

7. Documentation and Procedures

Status

Incomplete

Required documentation includes:

- COO
- ESAD
- RSAD
- ERG
- ePAS (required instead of OSPs)
- Operation manuals

A configuration change of this scale requires a new ERG and safety walkthrough.

Recommendation

1. Develop draft versions of all required documentation prior to experiment start.