

ES&H Director Situational Report to the JSA Users Board

June 23, 2025

Paul Gubanc

*Environment, Safety & Health Director
and Chief Safety Officer*

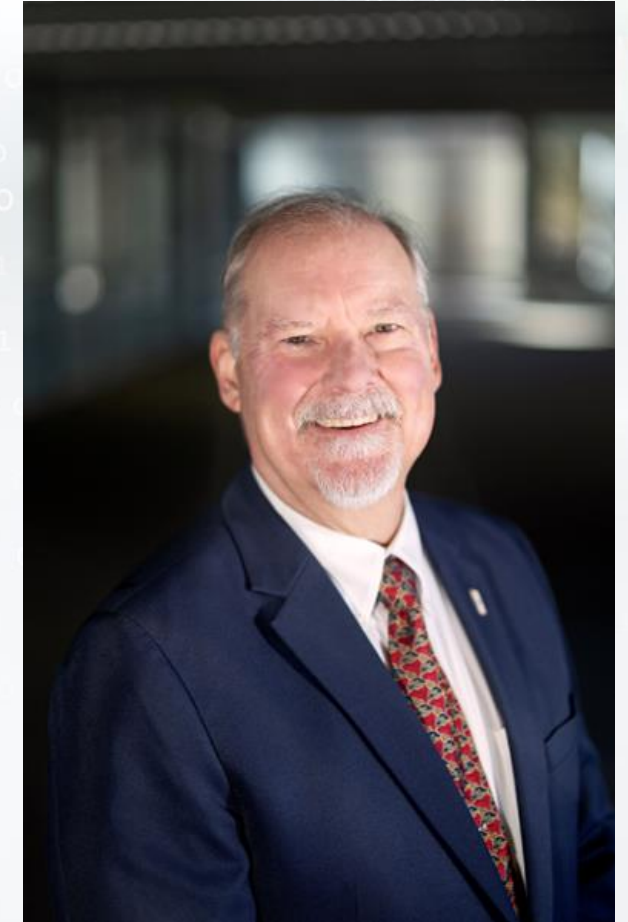
 **Jefferson Lab**



U.S. DEPARTMENT
of **ENERGY**

New ES&H Director, Paul F. Gubanc

- Start date Monday, February 17, 2025
 - On-site Monday, March 3, 2025
- Background
 - BS/MS Chem Engineering MIT, MBA University of Tennessee
 - Office of Naval Reactors
 - US Defense Nuclear Facilities Safety Board (SRS, Hanford, Oak Ridge)
 - ORNL (Nuclear Facilities, Lab Protection, National Security)
 - Amentum consulting services (Chief Nuclear Safety Officer)
 - Credentials – Professional Engineer (PE-VA), Certified Safety Professional (CSP), Project Management Professional (PMP)

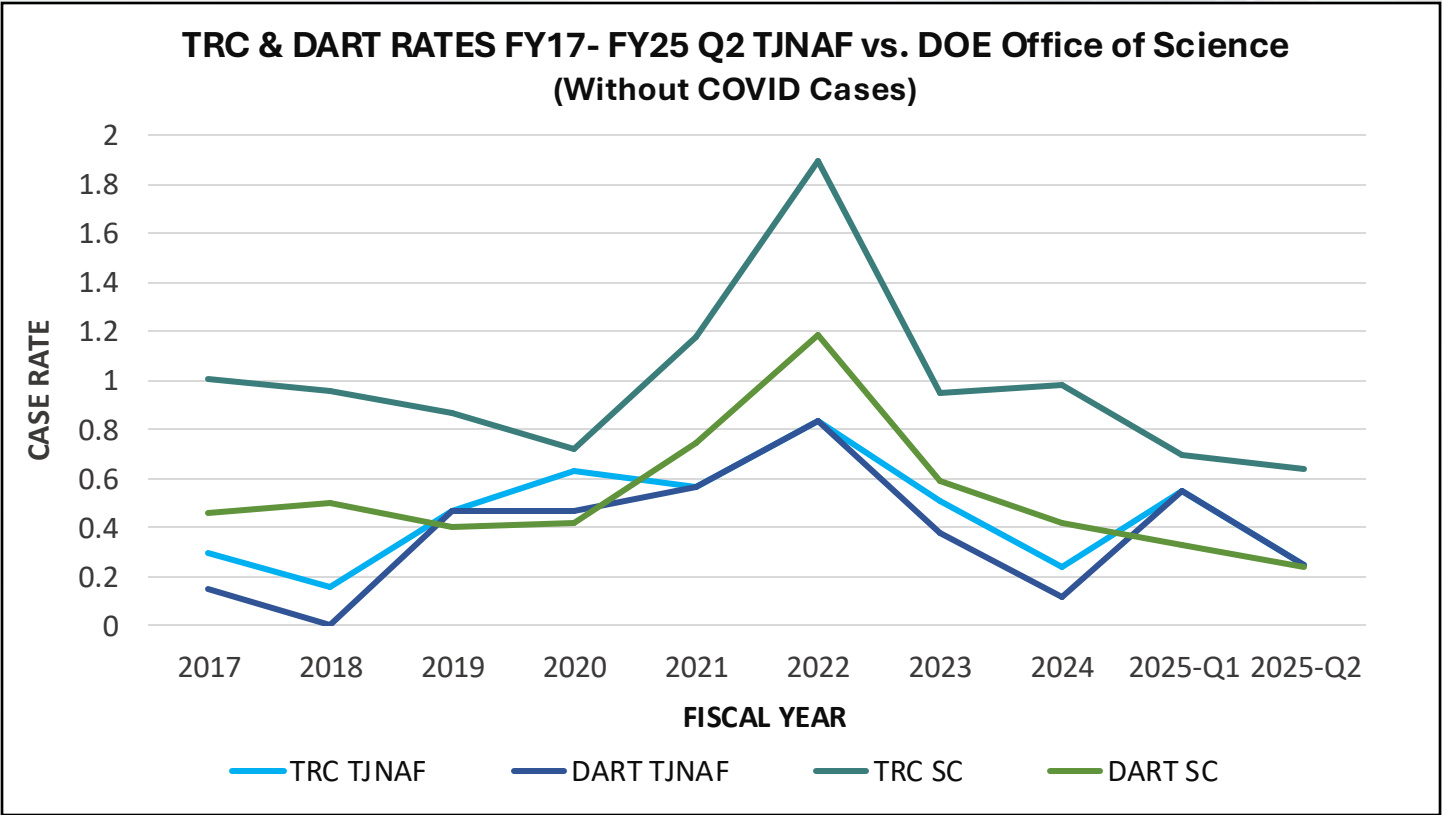


ES&H Accomplishments (February 17, 2025, to date)

- Five Vacancies filled (Director, ES&H Dept. Manager, RadCon Manager, WP&C Manager, Capital Projects PM)
- FY25 budget austerity measures in place
- ES&H stability and expectations established, accepted by the team
 - All ES&H Division position descriptions updated and approved
 - Overdue CATS actions driven down from 77 (as of February 14, 2025) to 1 (as of June 12, 2025)
- **ES&H Prioritization**
- Accelerator Safety violations resolved and transition to 420.2D near complete
- **“I Can Help Lead” Safety Culture model launched**
- Follow-up Safety Culture Assessment completed and showing improvement
- ES&H Manual “Get Well Plan” transitioned to visual management and collaborative workshops
- ePAS tool productivity and security updates in place, Advisory Team more effective
- OSHA+ pilot initiative launched
- **FY25 PEMP Mid-year feedback recognizes improvements**

Injury & Illness Dashboard

Jefferson Lab Injury Dashboard					
Input Date Range:		Total Count of Injuries:			
Start Date:	10/1/2024	First Aid	Recordable	DART	COVID
End Date:	5/31/2025	21	1	1	0
Notes: DART Cases are included in the reported count of Recordable injuries. COVID cases are excluded from the DART total and reported separately in the COVID column. COVID Rate is the TRC, including COVID-19 cases		Case Rates:			
		First Aid	Recordable	DART	DART w/ COVID
		X	0.18	0.18	0.18
		FY25 Projected Rate w/o New Injuries:			
		First Aid	Recordable	DART	DART w/ COVID
		X	0.12	0.12	0.12
		FY 24 Final Case Rates:			
		First Aid	Recordable	DART	COVID DART
		X	0.24	0.12	1.19



What is Safety Culture? Launched April 8, 2025



I CAN HELP LEAD

INTEGRITY • CURIOSITY • HUMILITY • LEADERSHIP

Learn how these behaviors define safety culture!

 **ONE JLAB**
DOING SCIENCE SAFELY

1. Integrity

Doing the right thing even when no one is watching

2. Curiosity

Asking what can go wrong or could be improved

3. Humility

Actively seeking and accepting help

4. Leadership

Leading by example, regardless of your role

Status of Safety Priorities

- To have priorities, ES&H had to first prioritize
- Not everything is a “10”
- Failure to prioritize was a key contributor to:
 - Leadership frustration
 - Lack of predictability and resources
 - ES&H Staff exhaustion and morale issues
- ES&H developed and, with COO endorsement, deployed a prioritization model

Workload Prioritization Model – a Proposal

Prepared by Paul Gubanc, 4 April 2025

Problem: In the normal state of business affairs, the capacity of stakeholders to raise tasks, questions, and concerns typically outstrips the capacity of the responsible organization to respond and resolve. To ensure efficient and effective workload management, a workload prioritization model/methodology is required.

Applicability: The proposal below is limited to the Jefferson Lab (JLab) Environment, Safety & Health (ES&H) Division. Should this model/method be considered useful beyond that scope, adoption of the model is at the discretion of those other JLab organizations and/or the Laboratory Director's office.

Background: The practice of Enterprise Risk Management (ERM) has its roots in the insurance industry where many types of risk needed to be identified, quantified and monetized. With US passage of the Sarbanes-Oxley Act, [Sarbanes-Oxley Act - Wikipedia](#), ERM tools were imposed on the US business community more broadly. ERM tools serve as a good starting point for how to manage many types of risk.

The ERM profession uses multiple variations of the following example image to identify the many types of risk:



ES&H Prioritization Methodology

ES&H Division Issues Management Priorities

PRIORITY LEVEL	Issue Description	Risk Type	Ranking	Roll-up	Urgency	Priority Score
10-9	Issue: [Handwritten description]	Safety/Compliance	H	5	URGENT	7.5
8-7	Issue: [Handwritten description]	Operational	H			
6-5	Issue: [Handwritten description]	Financial	L			
4.5-4	Issue: [Handwritten description]	Business	H			
3-1	Issue: [Handwritten description]					
CMPLT FOR MONTH	Issue: [Handwritten description]					

ISSUE LOCKOUT/TAGOUT TRAINING UPDATE & REQUAL BOW-WAVE				Start date 2 APR 2025
Risk Type	Ranking	Roll-up	Urgency	Priority Score
Safety/Compliance	H	5	URGENT x1.5	7.5
Operational	H			
Financial	L			
Business	H			
<ul style="list-style-type: none"> 5/2/25 - MEETING HELD WHICH AGREED w/ BOW-WAVE PLAN, INVOLVEMENT OF PRESSURE SME'S, REWORKED REQUAL INSTRUCTION DSC slide prep in process 				

Immediate (required in days) – x2
 Urgent (required in weeks) – x1.5
 Routine (required in months) – x1

Status of Safety Priorities

Topical List of Issues

- ES&H Staffing and Stability
- Accelerator Safety Program
- Work Planning & Control (ePAS)
- ES&H Manual Updates
- Radiological Controls
- Safety Culture/ISM
- Safety-related Committees (DSC, WSC, ePAS AT)
- Fact-finding & Causal Analysis (w/Q&PA)
- Emergency Management
- Environmental Management
- Budget

INSTEAD, the JLab User Board will be walked through the ES&H issues by priority (as of June 1, see following slides).

CAUTION, a lower priority does not mean it is not being actively worked. “Fire fighting” is not effective management.

If any issues of interest/concern are not touched upon, I’m happy to speak to them.

Status of Safety Priorities

Priority 10

- Replace ePAS Assistant Administrator
 - Friday, May 23, 2025 – Incumbent offered/accepted Engineering DSO position (a promotion)
 - Wednesday, May 28, 2025 – Transition timeline and ES&H/Eng’g sharing arrangement agreed
 - Friday, May 30, 2025 – Posting for replacement went active
- Resolve CMTF/VTA Accelerator Readiness Review (ARR) pre-starts **(closed & replaced)**
 - ARR out briefed Thursday, May 22, 2025
 - Factual accuracy review completed Friday, May 23, 2025
 - Two pre-starts tied to defining “bounding conditions” in the CMTF and VTA Accelerator Safety Envelope (ASE) documents
 - Pre-starts are also applicable to CEBAF/LERF and UITF ASEs also awaiting TJSO approval
 - Tuesday, May 27 – Friday, May 30, reworked language for all four ASEs (100+ manhours of deliberations)
 - Week of June 2-6, 2025, the four ASEs, the Safety Assessment Document (SAD), and the associated Operating Directives are being reworked, groomed, and internally approved
 - ASEs require submission to and approval by TJSO
 - Monday, June 30, 2025, is the DOE approved deadline to come into full compliance with DOE O 420.2D
- ES&H FY25 Budget Overrun Resolutions
 - Both Direct and Indirect budget accounts are overrun (~\$1M total) for a variety of reasons; many outside current ES&H management control

Status of Safety Priorities

Priority 8 to 7.5

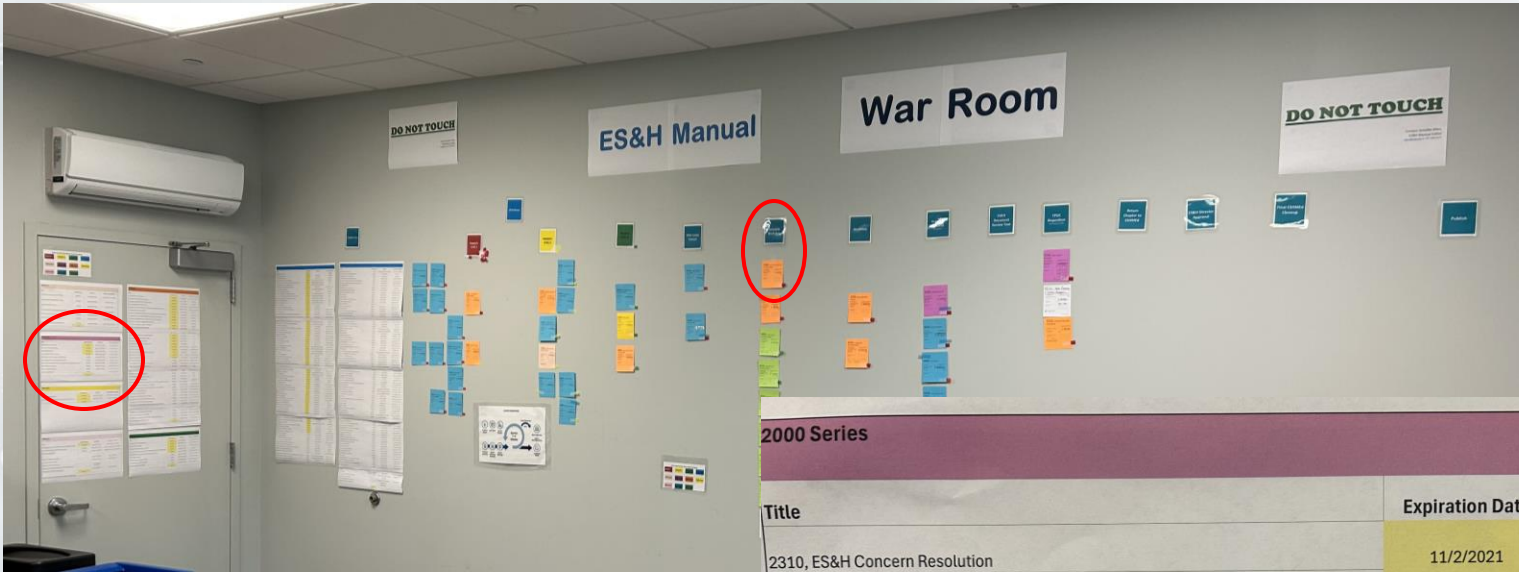
- Position Paper on achieving DOE O 420.2D compliance (start May 9, 2025)
 - Not a “requirement” but recommended best practice to assure completeness
 - Suggested pre-requisite to the Lab Director’s declaration that JLab has achieved compliance
- Develop, Launch, and Embed Safety Culture definition at JLab (start March 14, 2025)
 - “I Can Help Lead” safety culture model launched April 9, 2025
 - Weekly reinforcement delivered through April into May, monthly reinforcement commencing in June
 - May 6-8, 2025, L&A Safety Culture Follow-up Assessment (discussed in later slides)
 - Monday, June 2, 2025, L&A out brief to the JSA Board and final report delivery
 - Safety Culture Assessment response plan to be developed (pending Board inputs also)
 - Decision on how much is “enough” to declare this issue closed
- Lockout/Tagout Training Update & Requalification Bow-wave (start April 2, 2025)
 - Annual LOTO requals coming due in June, needed a plan to spread the bow-wave
 - LOTO practitioner complaints that requal was too electricity-centric and needed option for other hazard checkouts (pressure, lasers)
 - Wednesday, May 7, 2025, meeting held, which agreed to proposed solutions
 - Implementation actions initiated
 - Roll-out/Socializing at Director’s Safety Council planned for June 17, 2025

Status of Safety Priorities (updated June 16)

Priorities 6 and below

- 6 – ePAS Advisory Team Effectiveness (expected to close week of June 16)
- 6 – 2025 Summer Student Safety Assurance
- 5 – Accelerator Safety Long-term Health
- 5 – Hire replacement Accelerator Safety Program Manager
- 4.5 – Simplify LOTO PPE Requirements for 120V Breakers
- 4 – ePAS/Prometheus Contract Expiration/Replacement
- 4 – **ES&H Manual “Get Well Plan” & War Room (see next slide)**
- 4 – Deliver OSHA+ Pilot Successfully
- 3 – Get ES&H CATS backlog understood and under control (expected to close week of June 16)
- 3 – Worker Safety Committee (WSC) Charter refocus
- 3 – Train Q&PA staff on ORNL “Critique Pilot” model and tools for use at JLab
- 2 – Emergency Management DOE O 151.1E Implementation Plan

ES&H Manual “War Room”



2000 Series			
Title	Expiration Date	Summary	Author (enter usernames)
2310, ES&H Concern Resolution	11/2/2021	approved 11.02.2016	may, allenj, eshm-editor
2410, Jefferson Lab's Hazard Issues	8/24/2022	approved 10.08.2019	may, allenj, eshm-editor
2240, ES&H Committees	1/20/2025	approved 02.24.2016	may, allenj, eshm-editor
2410, Appendix T1 Hazard Issues List	3/27/2025	approved 03.27.2024	may, allenj, eshm-editor
2210, Appendix R1: Staff Assigned to ES&H Activities	1/21/2026	approved 09.01.2020	allenj, may, eshm_editor
2410, Appendix T2: Hazard Issues Update Procedure	1/31/2026	approved 10.17.2019	may, allenj, eshm-editor
2210, Overarching Responsibilities to Ensure Compliance with ES&H Requirements	1/28/2028	approved 11.09.2016	may, allenj, eshm-editor
2500, Safety Warden Program	3/20/2028	approved 10.31.2018	savannah, allenj, eshm-editor
2600, Student Safety Program	5/6/2028	approved 05.31.17	jennifer, allenj, eshm-editor
Student Mentor Checklist	5/6/2028		jennifer, allenj, eshm-editor
	past due		



ES&H Vision for the Future

Within 1-2 Years

- PEMP grade for ES&H recovered to B+ or better (FY24 grade was C+)
- Accelerator Safety program is documented and stable long-term
- Corrective initiatives (e.g., ES&H Manual, WP&C/ePAS, WSC) completed and effective
- Managed austerity measures that don't cripple mission or safety
- Contract transition enables continuity of ES&H initiatives

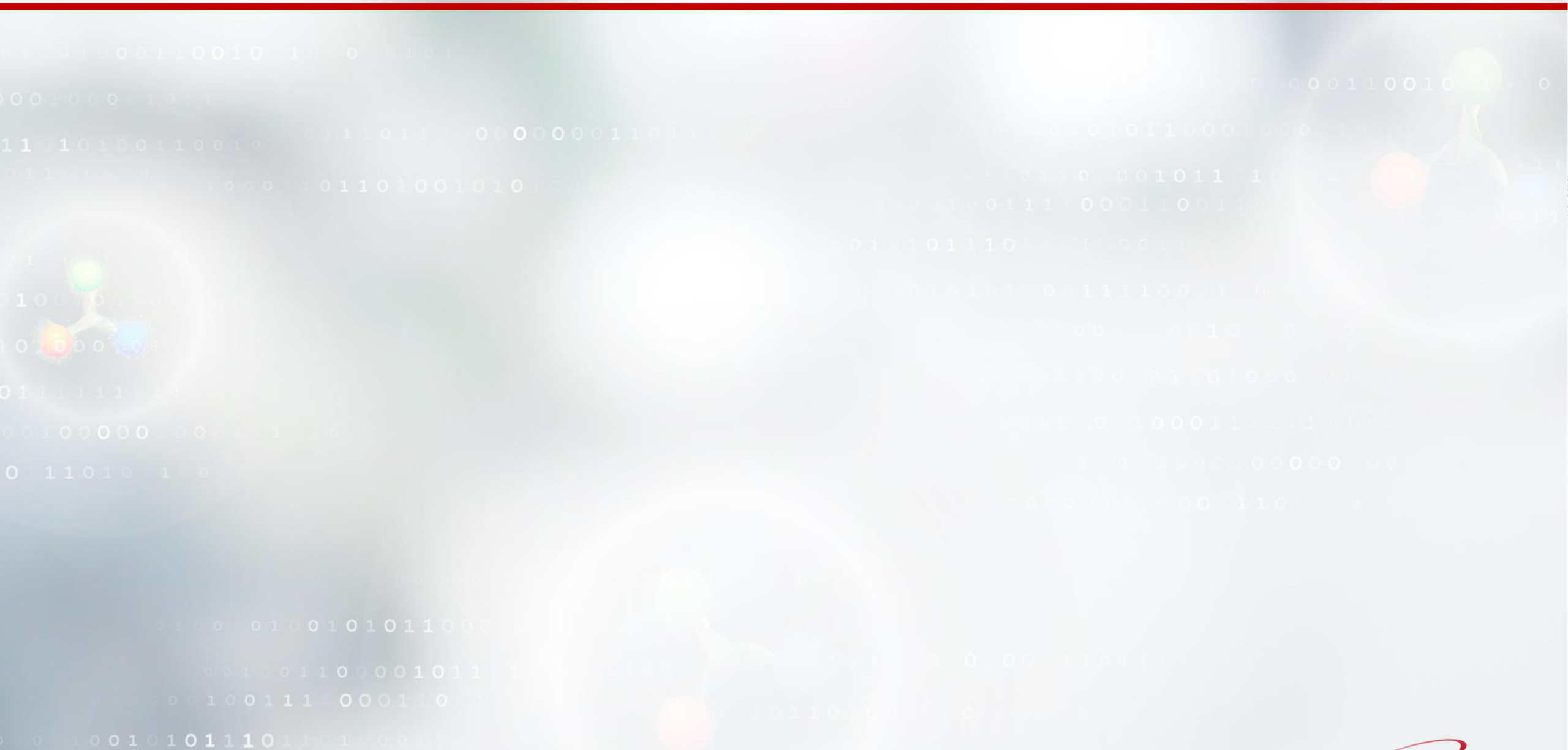
Within 3-5 Years

- “I Can Help Lead” Safety Culture model – embedded here and adopted by other small DOE labs
- ES&H succession planning in place
- Healthy balance between “Line Management Responsibility for Safety” and ES&H Division

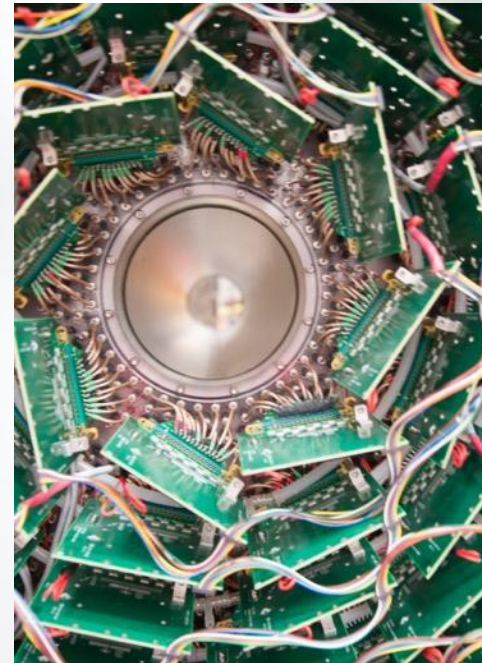
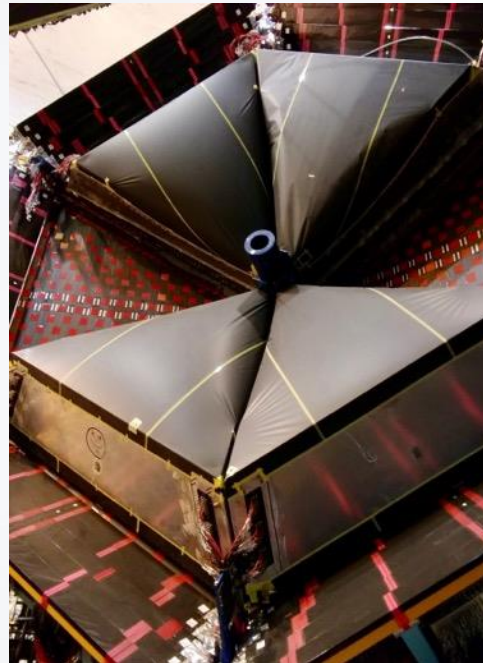
Questions?



Back up



Safety Culture Assessment follow-up



Safety Culture Assessment follow-up

SURA commissioned Longenecker & Associates (L&A) to perform a follow-on Safety Culture assessment

- Follow-on to April 2024 assessment
- Pre-visit Survey conducted April 21-28
- On-site visit May 6-8
- L&A exit briefing provided May 8
- Draft report provided for factual accuracy review on May 23
- L&A briefing to Board provided June 2
- Final report expected by June 6
- What follows is JLab's perspective on assessment results & initial response

Safety Culture Assessment follow-up

Perspectives on Conduct & Delivery of the Safety Culture Assessment

What Went Well

A pre-visit survey was administered lab-wide

The assessment team got time with each major hands-on lab organization (Accelerators, Physics, Eng'g, FM&L, CST)

Lab efforts to reinforce ISM (lanyard cards, safety shares, etc.) resulted in improvements visible to the L&A team

The L&A assessment team was highly competent and actively engaged

All but a couple of the issues identified by L&A were not a surprise

What Could Be Improved

Short-lead time, limited duration, and survey fatigue (?) resulted in only 166 responses (11%) and some anomalies

3-man on-site team, 2.5 day duration, limited how much they could see/experience

Our “I Can Help Lead” Safety Culture model launch was too late to get sufficient traction by May 6-8 (next slide)

L&A team expectations are steeped in commercial nuclear. Suggested rigor may not be proportional to risk at an accelerator laboratory (e.g., 5S/6S, training, ConOps)

Quantifying the extent of “new” issues will require follow-on evaluation (e.g., hesitation to report concern)

Safety Culture Assessment follow-up

JLab will develop a response to each Recommendation. Below are initial thoughts.

L&A Recommendations	Initial Expected Responses
1. Develop Disciplined Operations Standards & Expectations	<ul style="list-style-type: none">• Dovetail into planned DOE O 422.1 Chg 4 assessment & response (planned, QPA)
2. Examine Practices that can Hinder a Reporting Culture	<ul style="list-style-type: none">• Conduct extent of condition review (ES&H, QPA, DSO's)• Reinforce expectations with Comms campaign, especially for summer students (ES&H, Comms)
3. Review/Improve Lab-Wide Change Management Processes	<ul style="list-style-type: none">• Apply Kotter CM tools to major program initiatives such as HR, Finance (ongoing, COO)• Utilize ES&H Manual "War Room" to enhance change comms (ongoing, ES&H)• Improve use of other vehicles (e.g., DSC, DSOs) to socialize change (ES&H)
4. Leverage CAS Assessment Program	<ul style="list-style-type: none">• Review areas of concern with SMEs for their follow-up (ES&H)• Build FY26 Annual Assessment Plan to collect objective evidence on effectiveness and deep-dive into particular areas of concern (planned, QPA & ES&H)
5. Adopt Metrics and Progress Indicators	<ul style="list-style-type: none">• Develop lab-level balanced scorecard (underway, COO)• Update/improve SPECTRUM tool for ES&H metrics (planned, ES&H)
6. Increase Collaboration on WP&C Software Optimization	<ul style="list-style-type: none">• Conduct WP&C procedure update workshops w/ users (completed in May, ES&H)• Utilize ePAS Advisory Team in evaluating ePAS v4→v5 transition (initiated, ES&H)
OVERALL	<ul style="list-style-type: none">• Adopt a risk-informed, proportional response to each recommendation that JLab can afford and sustain (ongoing, COO)