

Date: March 10, 2025  
To: Eugene Chudakov, Hall D Leader  
From: Patrizia Rossi, Deputy Associate Director for Physics  
Subject: Readiness Certificate to run Hall D Experiment GlueX-II/JEF (E12-12-002(A)) for the period March-September, 2025.

---

Enclosed please find the Experiment Readiness Certificate for the experiment E12-12-002 GlueX-II/JEF (E12-12-002(A)) for the Spring/Summer 2025 run period scheduled for March 21 through September, 2025. Hall D is authorized to proceed with the run. As Hall Leader you are responsible for ensuring that all members of the collaboration are aware of the hazards the experiment presents and that they understand and follow the operations procedures outlined in your approved Conduct of Operations (COO), Experiment Safety Assessment Document (ESAD), Radiation Safety Assessment Document (RSAD), Emergency Response Guidelines (ERG) and on the General Access Radiation Work Permit (RWP, SAF801kd). The Physics Division EH&S group and the CEBAF Radiation Control Group are prepared to assist you in any way they can.

As an important part of your responsibility for managing the execution of this run, you must set in place a procedure that will ensure that all users working in Hall D during the run have read and understood the COO, ESAD (and associated OSPs/TOSPs, if any), RSAD, ERG and RWP, and that they have received the standard Hall D safety awareness training (SAF113), which includes a hazard awareness walkthrough of the hall.

The experiment GlueX-II/JEF (E12-12-002(A)) will run in the same configuration as in summer 2023 apart from the new detector ECAL. It will utilize up to 12 GeV electron beam and be split into three parts: new Forward Calorimeter commissioning, 4 weeks; standard running conditions, 144 days; and, high-current scan running 8 days. For all running conditions, the regular 30 cm LH2 target will be used. One diamond radiator will be utilized, as well as amorphous aluminum radiators. To provide a photon flux similar to that produced by the diamond radiators, the beam current for runs with amorphous radiators will be adjusted depending on the radiator's radiation length  $X_0$ . For the commissioning the new Forward Calorimeter currents up to 150 nA will be used. After commissioning is complete, standard run conditions with currents up to 300 nA will be conducted. At the end of the run period, the current will be ramped up to 1000 nA for a high-current scan.

The run plan is summarized in the RSAD document.

The Spring/Summer 2025 Hall D run is not expected to produce significant levels of radiation at the site boundary. However, it will be continuously monitored by the Radiation Control Department (RCD) to ensure that the site boundary goal is not exceeded. Activation of targets, collimators and beam line hardware must also be considered. The manipulation and/or handling of targets and beam line hardware (potential radioactive material), the transfer of radioactive material, or modifications to the beam line after the target assembly must be reviewed and approved by the RCD.

If there are any changes to your planned run that may have impact on radiation safety, it is your responsibility to discuss them with the RadCon Group before the modified plan is executed.

Four final items. First, the designated run coordinator is to be accessible to the accelerator division operations staff at all times via the Hall D cellular phone 757 383-5542. Second, the run coordinator or his or her designated representative is charged with representing the experiment both at the daily meetings with the accelerator program deputy that take place at 7:45 each morning and at the daily operations summary meetings that take place at 8:00 each morning. Third, the run coordinator should represent the experiment at the weekly accelerator scheduling meetings (Wednesdays at 1:30). Fourth,

the shift coordinator is charged with reconciling the experiment's records on accelerator performance with those of your crew chief at the end of each shift and with keeping the records for the experimental equipment performance and for the simultaneous availability of the beam and the experimental equipment (i.e. "useful" data-taking).

The measures outlined above are intended to promote smooth coordination between Accelerator operations and the experimenters, and to provide the laboratory with meaningful metrics on the operational reliability of the accelerator and experimental equipment.

cc: E. Pozdeyev  
B. Zihlmann (for placement in Hall D counting house)  
P. Vasilauskis (for placement in the MCC)  
T. Michalski (for distribution as appropriate)  
A. Stavola

Hall D Spring/Summer 2025 physics run: Experiment GlueX-II/JEF (E12-12-002(A)) ER2C  
Files

## Experiment Readiness Certificate for Hall D Experiment GlueX-II/JEF (E12-12-002(A)) Spring/Summer 2025 run

Document	Review(s)*	Certification	Signature	Date
Proposal w/ EH&S Hazard Identification Checklist	TAC & PAC	JLAB Director	See PAC report	
Preliminary Experiment Safety Assessment Document (PESAD) (optional)	ER <sup>2</sup> C	--	N/A	
Radiation Safety Assessment Document (RSAD) (includes planned Experiment Operations Envelope)	RadCon	RadCon	<i>[Signature]</i>	3/13/2025
	JLRRP or ad hoc panel review IF recommended by RadCon Officer	Review Chair	N/A	
Experiment Assessment Completion Readiness Review	ER <sup>2</sup> C	Deputy Associate Director for Physics	<i>[Signature]</i>	3/13/2025
Conduct of Operations (COO)	ER <sup>2</sup> C	Associate Director for Physics	<i>[Signature]</i>	3/13/25
Experiment Installation Checklist	Hall Work Coordinator	Hall Leader	<i>[Signature]</i>	3/13/2025
Issue/Concern Checklist	ER <sup>2</sup> C	Physics Div. Safety Officer	<i>[Signature]</i>	3/13/2025
Hall Leader Signoff on Experiment Readiness	E. Chudakov	n/a	See attached memo	

Experiment Readiness is Certified

*[Signature]*  
C. Keppel  
Associate Director for Physics

*[Signature]*  
Date

\*Note: JLRRP = Jefferson Lab Radiation Review Panel  
ER<sup>2</sup>C = Experimental Readiness Review Committee  
RadCon = Radiation Control Group  
PAC = Program Advisory Committee  
TAC = Technical Advisory Committee