



FACET-II

Facility for Advanced Accelerator Experimental Tests

FACET-II User Management and Safety

FACET-II Program Advisory Committee Meeting
October 26-29, 2020

Christine Clarke
FACET User Manager

Outline

- FACET and Test Facilities Division roles (slides 3 – 4)
- Experimental review, approval and release process (slides 5 – 7)
- User onboarding (slide 8)
- Remote users (slide 9)
- On-site users (slide 10)
- Training (slide 11)
- Installation planning (slide 12)
- How work in the tunnel actually happens (slides 13 - 20)
- Summary (slide 21)

Advanced Accelerator Research Department

- Organize and participate in science program aligned with HEP Roadmap
- Translate User needs to Test Facilities and Operations departments
- Maximize scientific output by organizing science workshops, collaboration meetings, etc.

Test Facilities Department

- Assign User training to ensure User safety onsite
- Contribute to design of experimental equipment and manage safe and efficient installation
- Coordinate multiple groups during accelerator access periods

FACET-II Operations Department

- Coordinate accelerator commissioning
- Develop new machine configurations matched to needs of experimental programs
- Create procedures for operators to ensure consistent delivery

Tight coordination between groups ensures safe and productive experience for FACET-II User community

Advanced Accelerator Research Department

- Organize and participate in science program aligned with HEP Roadmap
- Translate User needs to Test Facilities and Operations departments
- Maximize scientific output by organizing science workshops, collaboration meetings, etc.

Test Facilities Department

- Assign User training to ensure User safety onsite
- Contribute to design of experimental equipment and manage safe and efficient installation
- Coordinate multiple groups during accelerator access periods

FACET-II Operations Department

- Coordinate accelerator commissioning
- Develop new machine configurations matched to needs of experimental programs
- Create procedures for operators to ensure consistent delivery

Tight coordination between groups ensures safe and productive experience for FACET-II User community

Experiment Review, Approval and Release



- FACET Experiment Review is in line with SLAC Institutional Processes (SLAC ESH Handbook)
 - ESH Project Review Process (Chapter 1)
 - Work Planning and Control (Chapter 2)
- FACET Experiment Review process initially established in 2011
 - It covers the full life-cycle of an experiment (described on next slide)
- Successfully applied throughout FACET's 5-year operations
- Lessons learned from FACET (2011-2016) documented in revised process document in 2017
- Applied to this day throughout facilities managed by Test Facilities department (ESTB, ASTA, NLCTA)

AD FACET & Test Facilities Test Facilities Experiment Review, Approval and Release

Test Facilities Experiment Review, Approval and Release

Document Approval (signature/date)

Originator:	<i>[Signature]</i> 6/21/2017	John Seabury
Approver/F&TF Division Director:	<i>[Signature]</i> 6-21-17	Vitaly Yakimenko
ASTA Facility Manager:	<i>[Signature]</i> 6-21-2017	Stephen Weathersby
End Station A/ESTB Facility Manager:	<i>[Signature]</i> 6/21/17	Carsten Hast
End Station B/NLCTA Facility Manager:	<i>[Signature]</i> 6/21/17	Mike Dunning
FACET/FACET-II Facility Manager:	<i>[Signature]</i> 6/21/17	Keith Jobe
Test Facilities User Coordinator:	<i>[Signature]</i> 6/21/2017	Christine Clarke
Test Facilities Safety Coordinator:	<i>[Signature]</i> 6/21/2017	John Seabury
Test Facilities Department Head:	<i>[Signature]</i> 6/21/17	Carsten Hast

1. Purpose

This document outlines the requirements and describes processes for review, approval and release of experiments conducted within Test Facilities. It is intended to assure that the uses of the Test Facilities are conducted safely, efficiently and within SLAC and external requirements.

2. Scope

This includes all uses of RF, particle and laser energy within Test Facilities whether by SLAC employees (internal Users) or non-SLAC affiliates (external Users). It does not include normal facility maintenance and operations performed by Test Facilities staff, SLAC support staff, or subcontractors (these tasks are covered by SLAC's normal Work Planning and Control processes).

3. Applicability

This applies to Accelerator Structure Test Area (ASTA), End Station A/End Station Test Beams (ESTB), End Station B/Next Linear Collider Test Accelerator (NLCTA), and Facility for Advanced Accelerator Experimental Tests (FACET/FACET-II). It also applies to ancillary areas and buildings managed by Test Facilities Department, including but not limited to portions of B044, B108, B109, B239, and B244.

4. Roles and Responsibilities

4.1. Proposer/User ("User")

- Submits proposals using the Experiment Review Form ([Appendix B](#)).
- Supplies information requested during the proposal evaluation process.
- Complies with requirements of approved proposal.

June 21, 2017

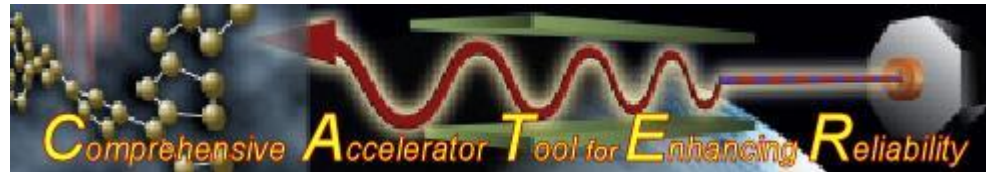
SLAC-I-080-0020-R000

Page 1 of 11

Review, Approval and Release process is well practiced and documented

Documentation of Approval and Release

- Release to perform work in Accelerator housing (FACET facility) is documented through CATER, an AD-supported tracking tool



- Authorization to operate beam with experiments installed is documented in the Beam Authorization Sheet (BAS)

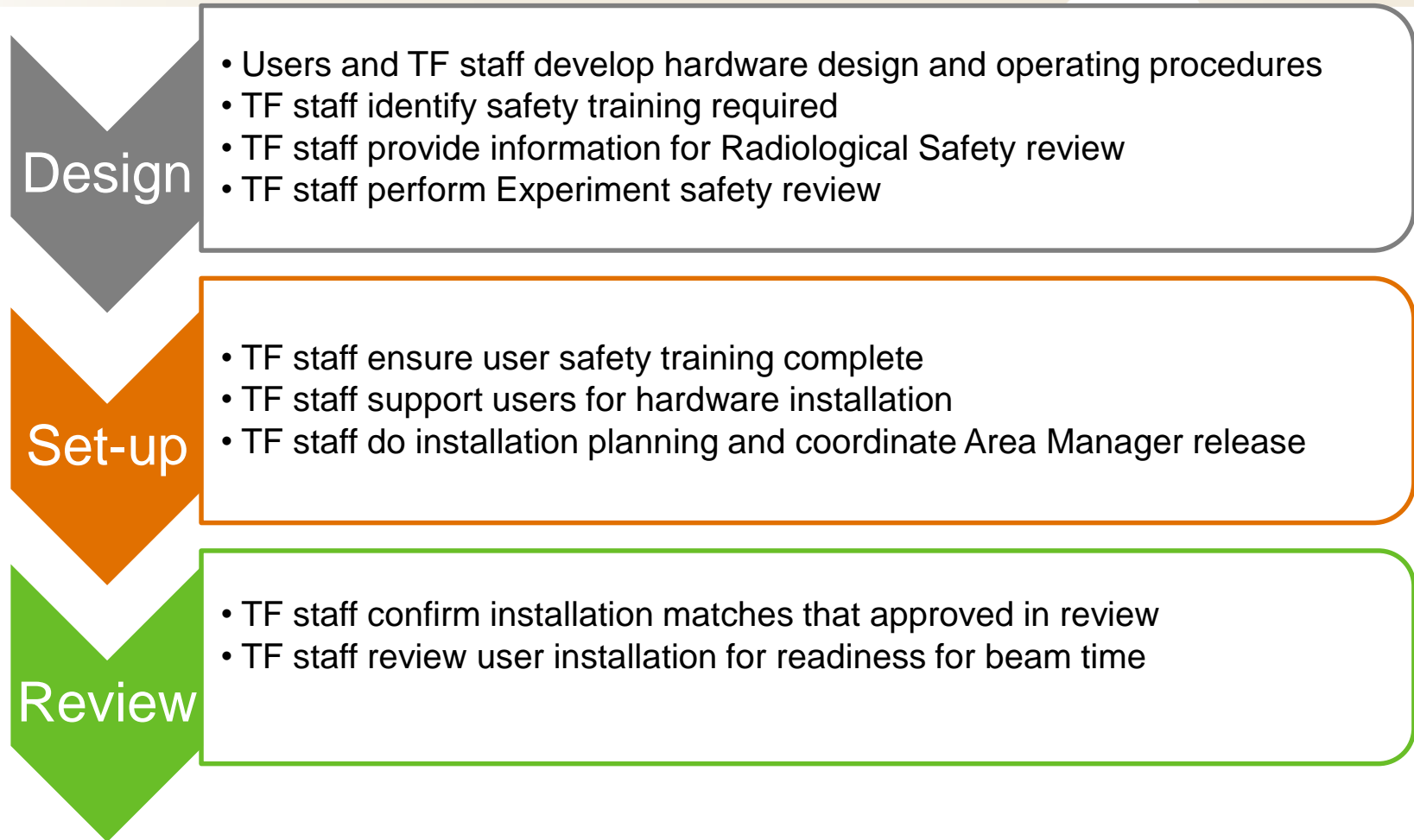
39	10/8/15 1330			FACET Test Facilities representative (Christine Clarke) verifies that the experimental equipment installed in the FACET beam line is approved by RPD memo.
----	-----------------	--	--	--

- Authorization to operate the FACET sector 20 laser with experiments is documented in the Radiation Generating Device Authorization Sheet (RGDAS)



Accelerator housing work is released through AD managed tracking tool. Experiment Radiation Safety Approval is required for Beam Authorization.

Experiment hardware development and safety review process



Test Facilities manage the Users' installation work and aid experimental design to ensure safety and productivity

User Onboarding

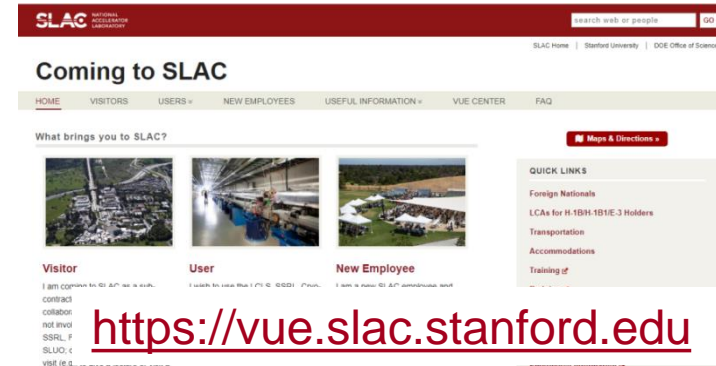
Test Facilities Department

- Assigns User training
- Administrative supervision of non-SLAC users
 - E.g. Incident/Injury reporting process
- UVFA (Unclassified Foreign Visits and Assignments) host to non-SLAC users

VUE Center

(Human Resources and ESH Security)

- Assigns SLAC ID
- Manages DOE User Facility User Agreements
- Ensures compliance to DOE O 142.3A Chg 1 (Unclassified Foreign Visits and Assignments Program)
- Issues badge and dosimetry



Responsibility for User safety resides with Test Facilities Department
Responsibility for User Onboarding and Site Access is with the VUE Center

Remote Users

- Remote users still get on-boarded
- Necessary to have SLAC computing accounts to:
 - Access the electronic log-book
 - Access the control system
 - Access data
- Cybersecurity training is required CS100
- To operate experiments remotely, need ACR orientation AD112



FACET e-log keeps everyone in touch



Remote work in the Accelerator Control Room (ACR) enabled through zoom and cameras

Work performed remotely where possible in times of covid

On-site users

- Where it is not possible to perform work remotely, work is performed on-site according to a “Job Safety Analysis” (JSA)

		Work Planning and Control Job Safety Analysis Form – COVID 19 Hazards and Controls	
<p><i>This form is used to document the additional controls necessary for SLAC employees to safely execute work in the COVID-19 environment.</i> <i>The work to be analyzed includes interactions with other work groups necessary to accomplish the work.</i> All other aspects of SLAC's Work Planning and Control outlined in ESH Manual Chapter 2 remain in effect.</p>			
All JSAs that include the COVID-19 hazard analysis and controls must be reviewed and approved according to the approval list in Table 1.			
Job / Activity: FACET User Area Installation Work		JSA/Activity #: AD-FACET-001	Start Date: jul 20 2020
<input type="checkbox"/> Existing analysis (JSA, ATA, Procedure):		CATER #s (optional):	Valid Through: Completion
Job/Activity Lead: Christine Clarke	Bldg. / Area Location(s): Sec 19/20 B001 and B002 (tunnel and gallery)	Other Information or References: Non-COVID hazards are analyzed per ATA and STA As additional steps are authorized then this JSA will be updated	
Lead Work Group or Directorate: AD FACET	B244, B62		
Other work groups or Directorate: RPFO MFD	<i>Parts will need to be gathered from other locations. Building managers will be contacted as required.</i>		

Stanford University
Stanford Health Check

Self-Reporting Onsite Access Badge COVID Dashboard Testing Program FAQ About

Health Check Self-Reporting

Report your health status one to two hours in advance of arriving at a Stanford location each day that you will be onsite.

You last reported your health status on 10/20/2020 at 07:55 am. [View your 30-day reporting history.](#)

*Mandatory per [COVID-19 prevention requirements](#). For more questions, please refer to [the FAQs](#) or [submit a Help Ticket](#).

Symptoms

Did you have COVID related symptoms in the past 14 days? *

Yes
 No

Testing

Have you had a COVID Blood Test? *

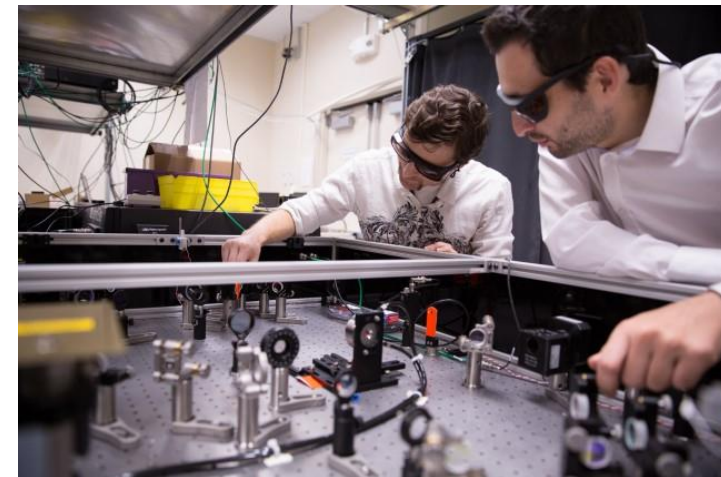
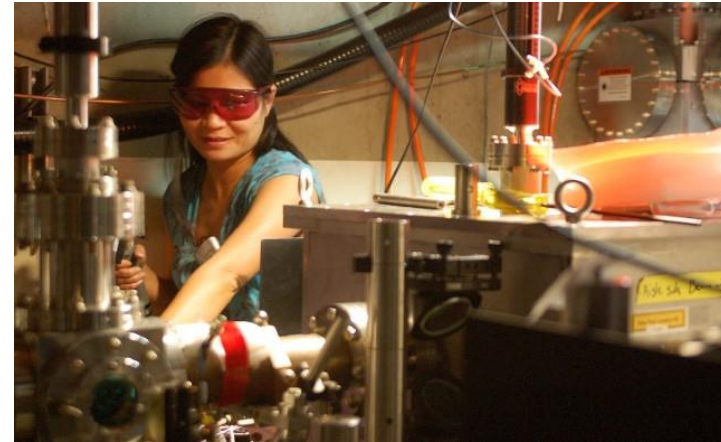
Yes
 No

- JSA analyzes job hazards and lists required mitigations
- Additional ESH training:
 - Course 100 and 100PRA
- Use Stanford Health Check tool daily and follow its guidance
- SLAC’s policy “Return from Personal or Business Travel Requirements” applies

Work performed with controls to mitigate covid hazards

FACET On-site User training example

- Course 219 - Environmental Safety and Health
- Course 115 - General Employee Radiation Training
- Course 120 - Work Planning and Control Overview
- Course 116+PRA - Radiation Worker 1 Training
- Course AD103 – FACET Orientation
- Course AD112 - Accelerator Control Room Orientation for non-Operators
- Course 100 – COVID-19 Training for Onsite SLAC Employees and Users
- Course 100PRA - Return to Onsite Work Orientation
- Course 253 - Laser Worker Safety Training
- Course 131 - Laser Accidents/Lessons Learned
- Course 253ME - Laser Worker Baseline Medical
- Course 253PRA - Laser Alignment Safety Practical



Training is assigned and tracked using SLAC ESH tools

Tunnel work planning via Google spreadsheet

- Any user can add jobs to this
- We plan ahead as much as possible – usually for the full run
- All jobs are required to have a procedure.
- All jobs are required to be covered with a “Covid JSA” (FACET staff provide this)
- Urgent jobs or requirements for unplanned access go direct to me via email/cell phone

The screenshot shows a Google spreadsheet titled "FACET User PAMM Requests". The spreadsheet has a menu bar (File, Edit, View, Insert, Format, Data, Tools, Add-ons, Help) and a toolbar with various icons. The data is organized into columns A through I. Row 1 contains headers: A (Date), B (Point of Contact / Coordinator), C (Experiment), D (CATER), E (Job Released / Approved?), F (Task), G (Task Lead), H (Personnel Working in Tunnel), I (Total Number of Workers), and J (Job Description). Rows 2 and 3 contain summary information: "High-Priority Experiments for the week(s) after PAMM:" and "Goal: all picnic basket motors connected, telescope installed, probe line established to picnic basket, new laser windows installed". Rows 4-10 list individual jobs with details like dates, coordinators, experiment types, statuses, tasks, and assigned personnel. Row 11 contains another summary: "High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTRs, ELanex, WLANex, Cher, sYAG), E-210". Row 12 contains a goal: "Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready". Row 13 lists another job. The bottom of the spreadsheet shows a navigation bar with tabs for "Guidelines", "FY19 downtime", "FY16 PAMM Archive", and "FY15 PAMM Archive".

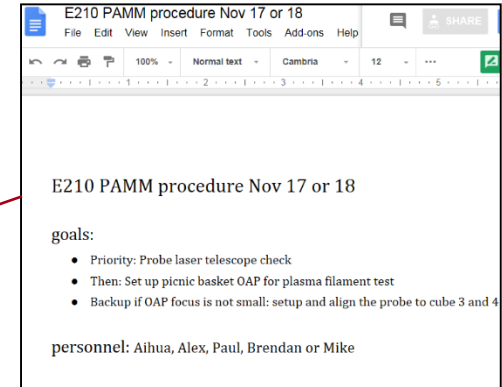
	A	B	C	D	E	F	G	H	I	J
1		Point of Contact / Coordinator	Experiment	CATER	Job Released / Approved?	Task	Task Lead	Personnel Working in Tunnel	Total Number of Workers	Job Description
2	High-Priority Experiments for the week(s) after PAMM:									
3	Goal: all picnic basket motors connected, telescope installed, probe line established to picnic basket, new laser windows installed									
4	10/16/2015	Christine	Plasma experiments	127187 - Rolled	Yes	Connect motors to pico controllers and test	Doug McCormick	Doug, Christine	2	
5	10/16/2015	Christine	Plasma experiments	127889 - Closed	Yes	Lift mechanism for the compressor box lid	Keith	Keith	1	
6	10/16/2015	Christine	Plasma experiments	127499 - Closed	Yes	Install new vacuum windows for laser	Doug	Doug	1	
7	10/16/2015	Christine	All experiments	127890 - Rolled	Yes	Install platform riser	Keith	Carl	1	
8	10/16/2015	Christine	All experiments	127553 - Closed	Yes	OTR camera installation and troubleshooting	Christine	Christine	1	
9	10/17/2015	Christine	Plasma experiments	127891 - Complete	Yes	Dump table diagnostics	James	James	1	
10	10/17-10/18	Christine	Plasma experiments	127117 - Complete	Yes	Optics installation and CLASS 4 laser work for probe set up in picnic basket	Mike Litos	Brendan, Paul, James, Mike, Navid	5	
11	High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTRs, ELanex, WLANex, Cher, sYAG), E-210									
12	Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready									
13	10/23/2015	Selina	Plasma experiments	127187 - Closed	Yes	Connect motors to pico controllers and test	Doug McCormick	Doug, Christine	2	

Jobs to be done in access are collected and assigned to dates via an open-to-all google spreadsheet

Work within FACET accelerator housing

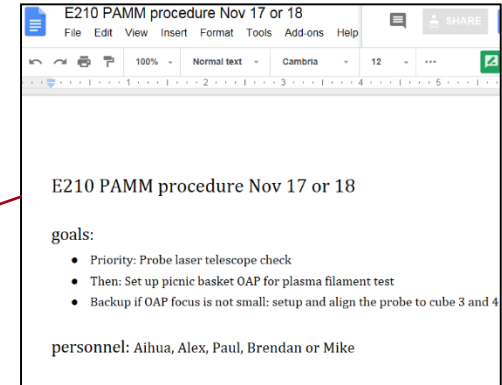


Work within FACET accelerator housing



7 days before access: Procedure

Work within FACET accelerator housing

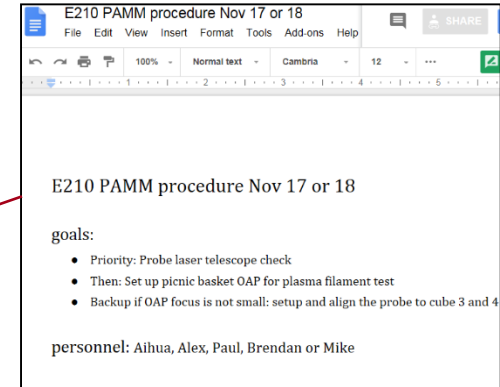


7 days before access: Procedure

	A	B	C	D	E	F	G	H	I	J
Yes	Point of Contact / Coordinator	Experiment	CATER	Job Released / Approved?	Task	Task Lead	Personnel Working in Tunnel	Total Number of Workers	Job Details	
High-Priority Experiments for the week(s) after PAMM:										
Goal: all picnic basket motors connected, telescope installed, probe line established to picnic basket, new laser windows installed										
10/16/2015	Christine	Plasma experiments	127187	Rollled	Yes	Connect motors to pico controllers and test	Doug McCormick	Doug, Christine	2	
10/16/2015	Christine	Plasma experiments	127889	Closed	Yes	Lift mechanism for the compressor box lid	Keith	Keith	1	
10/16/2015	Christine	Plasma experiments	127499	Closed	Yes	Install new vacuum windows for laser	Doug	Doug	1	
10/16/2015	Christine	All experiments	127890	Rollled	Yes	Install platform riser	Keith	Carl	1	
10/16/2015	Christine	All experiments	127553	Closed	Yes	OTR camera installation and troubleshooting	Christine	Christine	1	
10/17/2015	Christine	Plasma experiments	127891	Complete	Yes	Dump table diagnostics	James	James	1	
10/17,10/18	Christine	Plasma experiments	127117	Complete	Yes	Optics installation and CLASS 4 laser work for probe set up in picnic basket	Mike Litos	Brendan, Paul, James, Mike, Navid	5	
High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTR, ELanex, WLanex, Cher, sYAG), E-21										
Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready										
10/23/2015	Selina	Plasma experiments	127187	Closed	Yes	Connect motors to pico controllers and test	Doug McCormick	Doug, Christine	2	

During week before access:
Facility Staff review, Radiation Safety review

Work within FACET accelerator housing



7 days before access: Procedure

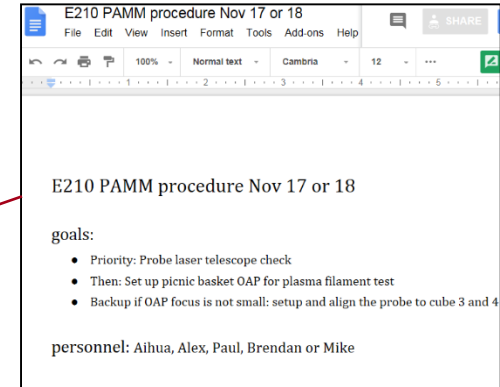
FACET User PAMM Requests										
Yes	A	B	C	D	E	F	G	H	I	J
	Point of Contact / Coordinator	Experiment	CATER	Job Released / Approved?	Task	Task Lead	Personnel Working in Tunnel	Total Number of Workers	Job D	Job E
High-Priority Experiments for the week(s) after PAMM:										
Goal: all picnic basket motors connected, telescope installed, probe line established to picnic basket, new laser windows installed										
4	10/16/2015	Christine	Plasma experiments	127187 Rolled	Yes	Connect motors to pico controllers and test	Doug McCormick Doug, Christine	2		
5	10/16/2015	Christine	Plasma experiments	127889 Closed		LFR mechanism for the compressor box lid	Keith	1		
6	10/16/2015	Christine	Plasma experiments	127499 Closed	Yes	Install new vacuum windows for laser	Doug	1		
7	10/16/2015	Christine	All experiments	127890 Rolled	Yes	Install platform riser	Keith	1	Carl	
8	10/16/2015	Christine	All experiments	127553 Closed	Yes	OTR camera installation and troubleshooting	Christine	1		
9	10/17/2015	Christine	Plasma experiments	127891 Complete	Yes	Dump table diagnostics	James	1		
10	10/17, 10/18	Christine	Plasma experiments	127117 Complete	Yes	Optics installation and CLASS 4 laser work for probe set up in picnic basket	Brendan, Paul, James, Mike, Navid	5		
High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTR, ELanex, WLanex, Cher, sYAG), E-21										
Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready										
13	10/23/2015	Selma	Plasma experiments	127187 Closed	Yes	Connect motors to pico controllers and test	Doug McCormick Doug, Christine	2		

During week before access: Facility Staff review, Radiation Safety review

Access Schedule for March 9th					
Start Time	Duration	Activity	Personnel	Work Location	Hazard/Control/Comments
Top priority: E-200 and E-225 laser work					
March 9th, 2016 (Wednesday)					
6:00	1	Survey	RFFO	Sec 19B20	
7:00	0.5	Vent	Juan	IP1	Vent Kraken first and then plasma OR remove Bo window and vent whole area at once.
7:30	0.5	Establish HeNe	Mike	IP1	
8:00	1	Change Ranges on Picnic Basket	Juan, Mike	IP1	
8:00	2	Align OTR cameras	Mike, Brendan, Ken	IP1	
10:00	1	Adjust oven mover LVDT	James Bong	IP1	
10:00	1	Replace DSHM	Brendan	IP2	
11:00	4	Axicon and kiroform alignment, rail camera	Mike, Ken, Brendan	IP1	Class 4 laser mode. QLOs only. Laser goggles required
14:00	0.5	Replace dump table screens	James	Dump	Ventify optics installed are the approved optics and verify beryllium window safety.
15:00	6	Ax img system, plasma length diagnostic	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
21:00	2	Pump down, lily and final checks (i.e. check all cameras functional and aligned)	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
23:00	1	Search	Ops	Sec 19B20	

Day before access: Schedule and controls emailed to workers and posted at site

Work within FACET accelerator housing



7 days before access: Procedure



Special attention given to keeping low occupancy, preference is for jobs to be planned for single-workers

FACET User PAMM Requests										
Yes	A	B	C	D	E	F	G	H	I	J
	Point of Contact / Coordinator	Experiment	CATER	Job Released / Approved?	Task	Task Lead	Personnel Working in Tunnel	Total Number of Workers	Job D	Ho
2 High-Priority Experiments for the week(s) after PAMM:										
Goal: all picnic basket motors connected, telescope probe line established to picnic basket, new laser windows installed										
4	10/16/2015	Christine	Plasma experiments	127187 Rolled	Yes	Connect motors to pico controllers and test	Doug McCormick	Doug, Christine	2	
5	10/16/2015	Christine	Plasma experiments	127889 Closed		LRF mechanism for the compressor box lid	Keith	Keith	1	
6	10/16/2015	Christine	Plasma experiments	127499 Closed	Yes	Install new vacuum windows for laser	Doug	Doug	1	
7	10/16/2015	Christine	All experiments	127690 Rolled	Yes	Install platform riser	Keith	Carl	1	
8	10/16/2015	Christine	All experiments	127553 Closed	Yes	OTR camera installation and troubleshooting	Christine	Christine	1	
9	10/17/2015	Christine	Plasma experiments	127891 Complete	Yes	Dump table diagnostics	James	James	1	
10	10/17/2015	Christine	Plasma experiments	127117 Complete	Yes	Optics installation and CLASS 4 laser work for probe set up in picnic basket	Brendan, Paul, James, Mike, Navid	5		
11 High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTR, ELanex, WLanex, Cher, sYAG), E-21										
Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready										
13	10/23/2015	Selma	Plasma experiments	127187 Closed	Yes	Connect motors to pico controllers and test	Doug McCormick	Doug, Christine	2	

During week before access: Facility Staff review, Radiation Safety review

Access Schedule for March 9th					
Top priority: E-200 and E-225 laser work					
March 9th, 2016 (Wednesday)					
Start Time	Duration	Activity	Personnel	Work Location	Hazard/Control/Comments
6:00	1	Survey	RPF/O	Sec 19B20	
7:00	0.5	Vent	Juan	IP1	Vent Kraken first and then plasma OR remove Bo window and vent whole area at once.
7:30	0.5	Establish HeNe	Mike	IP1	
8:00	1	Change Ranges on Picnic Basket	Juan, Mike	IP1	
8:00	2	Align OTR cameras	Mike, Brendan, Ken	IP1	
10:00	1	Adjust oven mover LVDT	James Bong	IP1	
10:00	1	Replace DSHM	Brendan	IP2	
11:00	4	Axicon and kinoform alignment, rail camera	Mike, Ken, Brendan	IP1	Class 4 laser mode. QLOs only. Laser goggles required
14:00	0.5	Replace dump table screens	James	Dump	Verify optics installed are the approved optics and verify beryllium window safety.
15:00	6	Ax img system, plasma length diagnostic	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
21:00	2	Pump down, lily and final checks (i.e. check all cameras functional and aligned)	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
23:00	1	Search	Ops	Sec 19B20	

Day before access: Schedule and controls emailed to workers and posted at site

Work within FACET accelerator housing

E210 PAMM procedure Nov 17 or 18

File Edit View Insert Format Tools Add-ons Help

100% Normal text Cambria 12

E210 PAMM procedure Nov 17 or 18

goals:

- Priority: Probe laser telescope check
- Then: Set up picnic basket OAP for plasma filament test
- Backup if OAP focus is not small: setup and align the probe to cube 3 and 4

personnel: Aihua, Alex, Paul, Brendan or Mike

7 days before access: Procedure



FACET User PAMM Requests

A	B	C	D	E	F	G	H	I	J
Point of Contact / Coordinator	Experiment	CATER	Job Released / Approved?	Task	Task Lead	Personnel Working in Tunnel	Total Number of Workers	Job ID	
High-Priority Experiments for the week(s) after PAMM:									
Goal: All picnic basket motors connected, telescope installed, probe line established to picnic basket, new laser windows installed									
10/16/2015	Christine	Plasma experiments	127187 Rolled	Yes	Connect motors to pico controllers and test LRF mechanism for the compressor box lid	Doug McCormick	Doug, Christine	2	
10/16/2015	Christine	Plasma experiments	127889 Closed	Yes	Install new vacuum windows for laser	Keith	Keith	1	
10/16/2015	Christine	Plasma experiments	127499 Closed	Yes	Install new vacuum windows for laser	Doug	Doug	1	
10/16/2015	Christine	All experiments	127690 Rolled	Yes	Install platform riser	Keith	Carl	1	
10/16/2015	Christine	All experiments	127553 Closed	Yes	OTR camera installation and troubleshooting	Christine	Christine	1	
10/17/2015	Christine	Plasma experiments	127891 Complete	Yes	Dump table diagnostics	James	James	1	
10/17,10/18	Christine	Plasma experiments	127117 Complete	Yes	Optics installation and CLASS 4 laser work for probe set up in picnic basket	Brendan, Paul, James, Mike, Navid	Mike Litos	5	
High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTR, ELanex, WLanex, Cher, sYAG), E-21									
Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready									
10/23/2015	Selma	Plasma experiments	127187 Closed	Yes	Connect motors to pico controllers and test	Doug McCormick	Doug, Christine	2	

During week before access: Facility Staff review, Radiation Safety review

Planned Machine Maintenance Dates

Sched Type	Future								
Start Date	End Date	Program	Machine State	Description	Job Control Status	View Jobs	Access Sched	Post Mornin	PMM Stats
11/07/2018	11/07/2018	LOLS	POVM	Provisional POVM	Active	Active	Active	Active	Active
12/22/2018	01/07/2019	LOLS	Downtime	Winter noise Shutdown	Active	Active	Active	Active	Active
01/07/2019	11/01/2019	LOLS	Downtime	LOLS Long Downtime	Active	Active	Active	Active	Active

Access: Work done (CATER documentation)

Day before access: Schedule and controls emailed to workers and posted at site

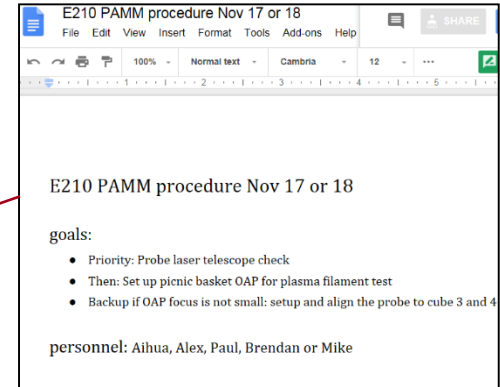
Access Schedule for March 9th

Start Time	Duration	Activity	Personnel	Work Location	Hazard/Control/Comments
Top priority: E-200 and E-225 laser work					
March 9th, 2016 (Wednesday)					
6:00	1	Survey	RFO	Sec 19B20	
7:00	0.5	Vent	Juan	IP1	Vent Kraken first and then plasma OR remove Bo window and vent whole area at once.
7:30	0.5	Establish HeNe	Mike	IP1	
8:00	1	Change Ranges on Picnic Basket	Juan, Mike	IP1	
8:00	2	Align OTR cameras	Mike, Brendan, Ken	IP1	
10:00	1	Adjust oven mover LVDT	James Bong	IP1	
10:00	1	Replace DSHM	Brendan	IP2	
11:00	4	Axon and kiroform alignment, rail camera	Mike, Ken, Brendan	IP1	Class 4 laser mode. QLOs only. Laser goggles required
14:00	0.5	Replace dump table screens	James	Dump	Verify optics installed are the approved optics and verify beryllium window safety.
15:00	6	Ax img system, plasma length diagnostic	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
21:00	2	Pump down, lily and final checks (i.e. check all cameras functional and aligned)	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
23:00	1	Search	Ops	Sec 19B20	

Work within FACET accelerator housing



End of access: report by users



7 days before access: Procedure



FACET User PAMM Requests

A	B	C	D	E	F	G	H	I	J
Point of Contact / Coordinator	Experiment	CATER	Job Released / Approved?	Task	Task Lead	Personnel Working in Tunnel	Total Number of Workers	Job ID	HO
High-Priority Experiments for the week(s) after PAMM:									
Goal: all picnic basket motors connected, telescope installed, probe line established to picnic basket, new laser windows installed									
10/16/2015	Christine	Plasma experiments	127187 Rolled	Yes	Connect motors to pico controllers and test LRF mechanism for the compressor box list	Doug McCormack	Doug, Christine	2	
10/16/2015	Christine	Plasma experiments	127889 Closed	Yes	Install new vacuum windows for laser	Keith	Keith	1	
10/16/2015	Christine	Plasma experiments	127499 Closed	Yes	Install new vacuum windows for laser	Doug	Doug	1	
10/16/2015	Christine	All experiments	127690 Rolled	Yes	Install platform riser	Keith	Carl	1	
10/16/2015	Christine	All experiments	127553 Closed	Yes	OTR camera installation and troubleshooting	Christine	Christine	1	
10/17/2015	Christine	Plasma experiments	127891 Complete	Yes	Dump table diagnostics	James	James	1	
10/17,10/18	Christine	Plasma experiments	127117 Complete	Yes	Optics installation and CLASS 4 laser work for probe set up in picnic basket	Brendan, Paul, James, Mike, Navid	Mike Litos	5	
High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTR, ELanex, WLAnex, Cher, sYAG), E-21									
Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready									
10/23/2015	Selina	Plasma experiments	127187 Closed	Yes	Connect motors to pico controllers and test	Doug McCormack	Doug, Christine	2	

During week before access: Facility Staff review, Radiation Safety review

Planned Machine Maintenance Dates

Sched Type	Start Date	End Date	Program	Machin State	Description	Job Control Status	Access Sched	Post Motion	PMM Status
11/07/2018	11/07/2018		LOLS	POVM	Provisional POCM	Active	Active	Active	Active
11/07/2019	01/07/2019		LOLS	Downline	Winter noise Shutdown	Active	Active	Active	Active
01/07/2019	11/02/2019		LOLS	Downline	LOLS Long Downline	Active	Active	Active	Active

Access: Work done (CATER documentation)

Access Schedule for March 9th

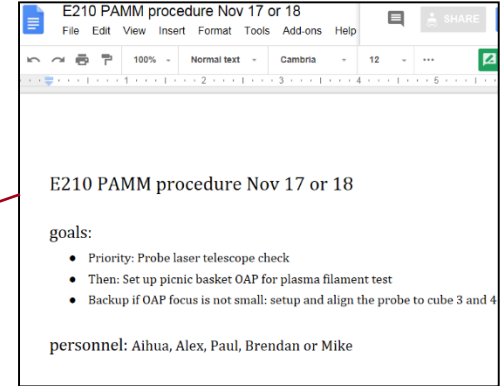
Start Time	Duration	Activity	Personnel	Work Location	Hazard/Control/Comments
6:00	1	Survey	RPF/O	Sec 19B20	
7:00	0.5	Vent	Juan	IP1	Vent Kraken first and then plasma OR remove Bo window and vent whole area at once.
7:30	0.5	Establish HeNe	Mike	IP1	
8:00	1	Change Ranges on Picnic Basket	Juan, Mike	IP1	
8:00	2	Align OTR cameras	Mike, Brendan, Ken	IP1	
10:00	1	Adjust oven mover LVDT	James Bong	IP1	
10:00	1	Replace DSHM	Brendan	IP2	
11:00	4	Axon and kiroform alignment, rail camera	Mike, Ken, Brendan	IP1	Class 4 laser mode. QLOs only. Laser goggles required
14:00	0.5	Replace dump table screens	James	Dump	Ventily optics installed are the approved optics and verify beryllium window safety.
15:00	6	Ax img system, plasma length diagnostic	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
21:00	2	Pump down, lily and final checks (i.e. check all camera functional and aligned)	Spencer, Antoine, James	IP1	Class 4 laser mode. QLOs only. Laser goggles required
23:00	1	Search	Ops	Sec 19B20	

Day before access: Schedule and controls emailed to workers and posted at site

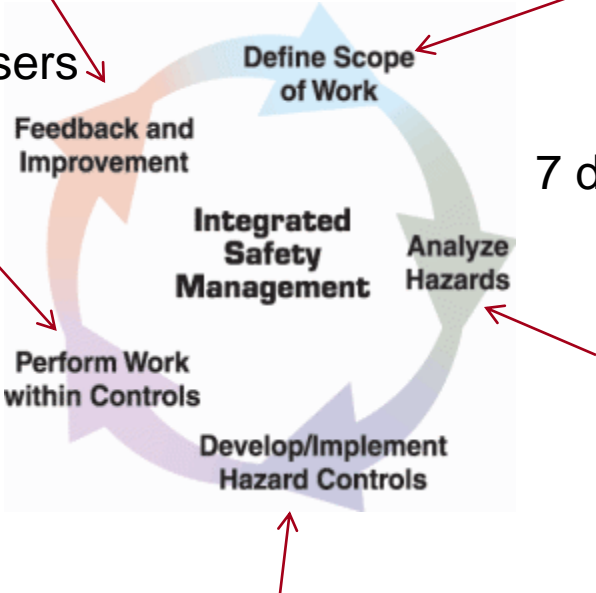
Work within FACET accelerator housing



End of access: report by users



7 days before access: Procedure



FACET User PAMM Requests

A	B	C	D	E	F	G	H	I	J
	Point of Contact / Coordinator	Experiment	CATER	Job Released / Approved?	Task	Task Lead	Personnel Working in Tunnel	Total Number of Workers	Job ID
High-Priority Experiments for the week(s) after PAMM:									
Goal: all picnic basket motors connected, telescope installed, probe line established to picnic basket, new laser windows installed									
4	10/16/2015	Christine	Plasma experiments	127187 Rolled	Yes	Connect motors to pico controllers and test	Doug McCormack	Doug, Christine	2
5	10/16/2015	Christine	Plasma experiments	127889 Closed	Yes	LFR mechanism for the compressor box lid	Keith	Keith	1
6	10/16/2015	Christine	Plasma experiments	127499 Closed	Yes	Install new vacuum windows for laser	Doug	Doug	1
7	10/16/2015	Christine	All experiments	127690 Rolled	Yes	Install platform riser	Keith	Carl	1
8	10/16/2015	Christine	All experiments	127553 Closed	Yes	OTR camera installation and troubleshooting	Christine	Christine	1
9	10/17/2015	Christine	Plasma experiments	127891 Complete	Yes	Dump table diagnostics	James	James	1
10	10/17, 10/18	Christine	Plasma experiments	127117 Complete	Yes	Optics installation and CLASS 4 laser work for probe set up in picnic basket	Brendan, Paul, James, Mike, Naved	Mike Litos	5
High-Priority Experiments for the week(s) after PAMM: E-210 Plasma Ionisation, E-200 (OTRs, ELanex, WLanex, Cher, sYAG), E-21									
Goal: E-210 ready for plasma ionisation tests, all E200 beam diagnostics ready									
13	10/23/2015	Selma	Plasma experiments	127187 Closed	Yes	Connect motors to pico controllers and test	Doug McCormack	Doug, Christine	2

During week before access:

Access Schedule for March 9th

Top priority: E-200 and E-225 laser work

Start Time	Duration	Activity	Personnel	Work Location	Hazard/Control/Comments
6:00		Survey	RFPO	Sec 19B20	
7:00	0.5	Vent	Juan	IP1	Vent Kraken first and then plasma OR remove Bo window and vent whole area at once.
7:30	0.5	Establish HeNe	Mike	IP1	
8:00	1	Change Rings on Picnic Basket	Juan, Mike	IP1	
8:00	2	Align OTR cameras	Mike, Brendan, Ken	IP1	
10:00	1	Adjust oven magnet LVDT	James Bong	IP1	

Access: Work done (CATER documentation)

Day before access: Schedule and controls emailed to

Test Facilities department managed that the users worked within the accelerator housing safely and productively

Summary

- User Management Roles and Responsibilities are well defined within FACET Division
- There is a well-established Test Facilities-owned process for experiment review, approval and release
- FACET Users are on-boarded through the VUE center
- Remote workers need to be on-boarded also for computing accounts and training
- On-site workers have additional requirements for site access during times of covid
- SLAC institutional tools are used for user training assignment/tracking and laser worker authorization
- Tunnel installation work is planned ahead using collaborative tools
- Work in the housing follows Integrated System Management process

We are ready for the safe execution of the FACET-II experimental program



FACET-II

Facility for Advanced Accelerator Experimental Tests

Questions?

FACET-II Program Advisory Committee Meeting
October 26-29, 2020



U.S. DEPARTMENT OF
ENERGY

Office of Science



SLAC NATIONAL
ACCELERATOR
LABORATORY