Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

Originator Ray Larsen

Action Item:
Reference Section from presentation (if appropriate): 
Safety Related: yes X no
Subject (to allow for categorizing):

Management issues

Action to be accomplished (use more paper if needed):

Organizational chart, management responsibilities, key technical leaders

Assigned to: P Anthony
Due Date:
Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

Originator Ray Larsen

Action Item:
Reference Section from presentation (if appropriate): 
Safety Related: yes X no
Subject (to allow for categorizing):
   Budget and Schedule

Action to be accomplished (use more paper if needed):
   In budget, show all resources, off project and SLAC.

Assigned to: P Anthony/B Olson
Due Date:
Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

Originator Ray Larsen

Action Item:

Reference Section from presentation (if appropriate): ________
Safety Related: ___ yes ___ X ___ no
Subject (to allow for categorizing):

    Budget and Schedules

Action to be accomplished (use more paper if needed):

    Identify sources and basis of estimates

Project Management Team Use

Assigned to: B Olson/All component leaders

Due Date:
Real Photon Collaboration Beamline/E160 Review
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Design Review Action Item

Originator Jim Krebs

Action Item:

Reference Section from presentation (if appropriate): _______
Safety Related: yes X no
Subject (to allow for categorizing):

   Scheduling (resource)

Action to be accomplished (use more paper if needed):

1. What are the expected resources needed from EFD and when they are needed?
2. Same question regarding Research Division Engineering resources.

Assigned to: P Anthony/B Olson

Due Date:
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Design Review Action Item

Originator Jim Krebs

Action Item:

Reference Section from presentation (if appropriate): _______

Safety Related: ___ yes ___ X no

Subject (to allow for categorizing):

Project Management

Action to be accomplished (use more paper if needed):

I would like to see a current organization chart including reporting structure, separation of responsibilities including positions such as “Integration/Systems Engineer”, “SLAC Installation Engineer”, etc. I would also like to see a current list of all collaborators including their institution and expertise. Also, has there been any loss of critical collaborators due to the schedule stretch-out?
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Design Review Action Item

Originator  Harvey Lynch

Action Item:

Reference Section from presentation (if appropriate): ________
Safety Related:  ____yes   X  no
Subject (to allow for categorizing):

   Photon Beamline

Action to be accomplished (use more paper if needed):

   ESA Power Supplies

       1. Who will do the work to modify the SLC arc supplies for use in ESA?
       2. Are the SLC supplies still serviceable?

Project Management Team Use

Assigned to: S Debarger/R Erickson

Due Date:
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Design Review Action Item

Originator  Harvey Lynch

Action Item:
Reference Section from presentation (if appropriate): ________
Safety Related: _____yes   X  no
Subject (to allow for categorizing):

                Project Management

Action to be accomplished (use more paper if needed):

    Previous Reviews Action Items

    What is the status of the action items generated at the previous review? E-160 proponents* say, “Perry knows” Why Perry?

*Peter, Bill

[NOTE: Previous Review Items have been located and distributed to the Review Committee and experimenters.]
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Design Review Action Item

**Originator**  Harvey Lynch

**Action Item:**

Reference Section from presentation (if appropriate): ________
Safety Related: ___yes ___X___ no
Subject (to allow for categorizing):

Scheduling/Resource

Action to be accomplished (use more paper if needed):

**ESA Engineering and Design Support**

Resources are not currently available, and there is competition within the lab for these resources.

1. When must the appropriate people be available?
2. What is being/will be done to get the needed resources?

Assigned to: B Olson

Due Date:
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Design Review Action Item

Originator     Harvey Lynch

Action Item:

Reference Section from presentation (if appropriate): ________
Safety Related: _X_ yes      __ no
Subject (to allow for categorizing):

    Spectrometer

Action to be accomplished (use more paper if needed):

    Graphite

    1. Are these health hazards associated with handling the graphite?
    2. Are there special fire hazards associated with the graphite?
Real Photon Collaboration Beamline/E160 Review  
June 24, 2002

Design Review Action Item

**Originator** Gary Godfrey

**Action Item:**

Reference Section from presentation (if appropriate): ________
Safety Related:  _X_ yes  ____ no
Subject (to allow for categorizing):

Radiation Safety – Photon Beamline

Action to be accomplished (use more paper if needed):

~1 kW is lost on collimator C37. Immediately downstream is a sweep magnet, which sweeps μ up. Are these μ a radiation hazard outside the shielding or will they trip a BSOIC?
Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

Originator __________Steve St. Lorant__________

Action Item:

Reference Section from presentation (if appropriate): ___Photon Beamline____
Safety Related: ____yes     __X__no
Subject (to allow for categorizing):
   Power Supply for Dump Magnets

Action to be accomplished (use more paper if needed):
   The long cable runs will have inductive and capacitive effects on the power supply.
   Study is needed.

   Verify cable condition.

   Verify that reconfiguration of the power supply is not an issue.

   Verify serviceability of the power supply (supply from Fermilab and last used 4 years ago
   for SLC!).

   Identify resource (engineer) to do these tasks.

Project Management Team Use

Assigned to: S. Debarger/R. Erikson

Due Date:
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Design Review Action Item

Originator ______________Steve St. Lorant_________________

Action Item:

Reference Section from presentation (if appropriate): ____Photon Beamline_____
Safety Related: ____yes ___X__ no
Subject (to allow for categorizing):

Goniometer

Action to be accomplished (use more paper if needed):

Mismatch between coefficients of thermal expansion between Diamond (1.18x10^-6 at 20C) and Beryllium (varies for 14x10^-6 to 17x10^-6 between 200C and 700C). Can a different substance (a ceramic) be used to hold the diamond?
Real Photon Collaboration Beamline/E160 Review  
June 24, 2002

Design Review Action Item

Originator ___________Steve St. Lorant______________

Action Item:

Reference Section from presentation (if appropriate): Photon Beamline
Safety Related: yes   X no
Subject (to allow for categorizing):

    Photon Beam monitoring

Action to be accomplished (use more paper if needed):

Concern about lack of definition for the Ion Chamber work and Cherenkov Chamber work to be carried out by offsite collaborators. Definition needed to understand SLAC’s exposure. Also, these items are not “simple” pieces of pipe. The Cherenkov will need plumbing evacuating and backfilling with nitrogen (probably needs safety review if vacuums are developed), control system for this “pump and purge” procedure. Gas properties need to be defined (R&D?). Mirror – Alzak? Etc.
Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

Originator __________Steve St. Lorant____________

Action Item:

Reference Section from presentation (if appropriate): ___Photon Beamline____
Safety Related: ____yes  X_no
Subject (to allow for categorizing):

                  Photon Beam monitoring

Action to be accomplished (use more paper if needed):

Concern about design of ion chambers in the dump line. Worry about wiring issues, access for repairs. Urge that the chambers be designed to be removable (decouples from magnet insertion, allows for easier repair/replacement after installation).

Does the wire array need to be moved after initial installation and alignment.
Real Photon Collaboration Beamline/E160 Review
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Design Review Action Item

Originator __________Steve St. Lorant____________

Action Item:
Reference Section from presentation (if appropriate): ___Photon Beamline____
Safety Related: ____yes   ___X no
Subject (to allow for categorizing):

Photon Beamline alignment

Action to be accomplished (use more paper if needed):

Does 3DC2 require remote adjustment? If not, what is alignment procedure. If it does, what is alignment procedure and what are control costs associated with movement.
Real Photon Collaboration Beamline/E160 Review
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Design Review Action Item

Originator __________Steve St. Lorant________________

Action Item:

Reference Section from presentation (if appropriate): ___Radiation Shielding_____
Safety Related: _X__ yes  ____ no
Subject (to allow for categorizing):

Shielding requirements

Action to be accomplished (use more paper if needed):

Better definition/design of shielding around LASS dipole.

Worry about egress issues with modification to north-east “tunnel” shielding (blocking a door way). Could sandbags outside the ESA wall be used?

Burn-through monitors – study placement with regard to plumbing issues, also may cause egress issues, further study needed.

Local shielding around the SEQ, should be incorporated into SEQ design (lead poured into aluminum forms).

Assigned to: M Olson

Due Date:
Real Photon Collaboration Beamline/E160 Review
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Design Review Action Item

Originator __________Steve St. Lorant______________

Action Item:

Reference Section from presentation (if appropriate): ___Radiation Shielding____
Safety Related: _X__yes _____no
Subject (to allow for categorizing):

E158 shielding components

Action to be accomplished (use more paper if needed):

Storage issues for E158 lead removed from spectrometer/tunnel. Parts will be activated, where will all the lead be stored.
Real Photon Collaboration Beamline/E160 Review  
June 24, 2002

Design Review Action Item

Originator __________Steve St. Lorant______________

Action Item:
Reference Section from presentation (if appropriate): ___Photon Beamline____
Safety Related: ____yes     __X_no
Subject (to allow for categorizing):

   ESA Beam Dump

Action to be accomplished (use more paper if needed):

“Back splash” from SEQ requires study. This can kill the experiment or require expensive retrofitting (how much to move detectors designed to sit in the cart and put them in the dump line tunnel!).

Assigned to: P Bosted/S Mao
Due Date:
Real Photon Collaboration Beamline/E160 Review  
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Design Review Action Item

Originator: Jim Krebs

Action Item:
Reference Section from presentation (if appropriate): Target
Safety Related: yes X no
Subject (to allow for categorizing):

Target

Action to be accomplished (use more paper if needed):

More thought on the target position location detection may be needed, e.g. position holes radially for unique identification.
Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

Originate David Fryberger

Action Item:

Reference Section from presentation (if appropriate): _______
Safety Related: ___yes ___X___ no
Subject (to allow for categorizing):

Management issues

Action to be accomplished (use more paper if needed):

Investigate higher temperature support for diamond to facilitate higher temperature continuous *in situ* annealing.
Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

**Originator** David Fryberger

**Action Item:**

Reference Section from presentation (if appropriate): _______
Safety Related: ___yes   ___X___ no
Subject (to allow for categorizing):

Management issues

Action to be accomplished (use more paper if needed):

   Develop a more detailed construction and installation schedule to reveal possible conflicts.
Real Photon Collaboration Beamline/E160 Review
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Design Review Action Item

Originator: David Fryberger

Action Item:

Reference Section from presentation (if appropriate): ________
Safety Related: ___yes ___X__no
Subject (to allow for categorizing):

Management issues

Action to be accomplished (use more paper if needed):

Consider radial hole placement for target wheel alignment.
Real Photon Collaboration Beamline/E160 Review
June 24, 2002

Design Review Action Item

Originator David Fryberger

Action Item:

Reference Section from presentation (if appropriate): ______
Safety Related: ____yes  ____X  ____no
Subject (to allow for categorizing):

Management issues

Action to be accomplished (use more paper if needed):

   Experimentally verify scintillator and 45° angle reflection into PMT.
Real Photon Collaboration Beamline/E160 Review
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Design Review Action Item

Originator  David Fryberger

Action Item:

Reference Section from presentation (if appropriate): ________
Safety Related: ___yes   ___X___ no
Subject (to allow for categorizing):

Management issues

Action to be accomplished (use more paper if needed):

    Look into early and separate approval for proposed Møller Compton polarimeter run.
Real Photon Collaboration Beamline/E160 Review
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Design Review Action Item

Originator: David Fryberger

Action Item:

Reference Section from presentation (if appropriate): _______
Safety Related: yes  X  no
Subject (to allow for categorizing):

Management issues

Action to be accomplished (use more paper if needed):

Get up-to-date transparencies to the committee for talks.

Assigned to: Design Team
Due Date: