

Title	<i>Front End Utilities for Unfinished sectors</i>		
Project Requestor	Greg E Wiemerslage		
Date	8/19/08		
Group Leader(s)	P. DenHartog		
Machine or Sector Manager	Storage Ring		
Category	Accelerator hardware and Insertion Device Upgrades		
Content ID*	APS_1269913	Rev.	2 8/19/08 4:41 PM

*This row is filled in automatically on check in to ICMS. See Note ¹

Description:

Start Year (FY)	2009	Duration (Yr)	2
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Objectives:

To procure and fabricate the items necessary to install ID and BM front end utilities in the storage ring in all unfinished sectors.

Benefit:

The completion of the front end utilities would allow quicker and easier completion of new experimental sectors which will enhance the capabilities of the Advanced Photon Source by allowing more available user beam time. It will make best use of available time during shutdowns

Risks of Project: See Note ²

NA at this phase of the project.

Consequences of Not Doing Project: See Note ³

The utilities need to be installed at least one shutdown prior to the installation of the front end due to installation schedule constraints. The option of developing additional beamlines in these sectors does not exist until this equipment is purchased and installed.

Cost/Benefit Analysis: See Note ⁴

The cost of procuring and installing front end utilities continues to rise every year. We would be able to utilize available shutdowns before the front end installations are actually required.

Description:

The purpose of this project is to complete the infrastructure necessary to make use of the remaining sectors. It includes the cost of a designer to complete drawings, procurement of relay racks, cable trays, electrical power, water and pneumatic piping and controls, and other utility equipment, and the cost of contractor support to install the equipment in four bending magnet sectors and four insertion device sectors. The rate of completion would depend on the need and the available funds. The estimated cost assumes one per shutdown but more could be done if priority demanded.

Funding Details

Cost: (\$K)

Use FY08 dollars.

Year	AIP	Contingency
1	540	10%
2	540	10%
3	360	10%
4		
5		
6		
7		
8		
9		
Total	1440	

Contingency may be in dollars or percent. Enter figure for total project contingency.

Effort: (FTE)

The effort portion need not be filled out in detail by March 28

APS Strategic Planning Proposal

Year	Mechanical Engineer	Electrical Engineer	Physicist	Software Engineer	Tech	Designer	Post Doc	Total
1	0.15	0.07				0.15		0.37
2	0.15	0.07						0.22
3	0.06	0.03						0.09
4								0
5								0
6								0
7								0
8								0
9								0

Notes:

¹ **ICMS.** Check in first revision to ICMS as a *New Check In*. Subsequent revisions should be checked in as revisions to that document i.e. *Check Out* the previous version and *Check In* the new version. Be sure to complete the *Document Date* field on the check in screen.

² **Risk Assessment.** Advise of the potential impact to the facility or operations that may result as a consequence of performing the proposed activity. Example: If the proposed project is undertaken then other systems impacted by the work include ... (If no assessment is appropriate then enter NA.)

³ **Consequence Assessment.** Advise of the potential consequences to the facility or to operations if the proposal is not executed. Example: If the proposed project is not undertaken then ____ may happen to the facility. (If no assessment is appropriate then enter NA.)

⁴ **Cost Benefit Analysis.** Describe cost efficiencies or value of the risk mitigated by the expenditure. Example: Failure to complete this maintenance project will result in increased total costs to the APS for emergency repairs and this investment of ____ will also result in improved reliability of _____. (If no assessment is appropriate then enter NA.)