

X-Ray Operations	(control account U553800)				START 8/1/2019 last updated 6/22/2022
Task Code	WBS	Non Fab	Fab	Approvals	Description
CHES Operations					
	XR_1.1	U553801-XR11		Moring	Related to user operation, servicing users, shifting, experimental needs, lab supplies, gases, chemicals. Also stand alone capital equipment.
	XR_1.2		U553811-XR12	Moring	Fabrication labor and materials for things essential to CHES Operations (defined above) that increase performance, reliability, or value. Labor and purchases for replacement or maintenance items ARE NOT fabrication.
CHES Technical Support					
	XR_2.1	U553802-XR21		Conolly	Includes repair , maintenance and testing/commissioning of; CHES beamlines, standard experimental equipment, upgrade projects, tools, vacuum systems, optics, beamline controls, bpm, alarms, interlocks, data collection devices, PPS, EPS, detectors, cryocoolers, spares. Also stand alone capital equipment. (Other than partner projects)
	XR_2.2		U553812-XR22	Conolly	Fabrication labor and materials for things essential to CHES Technical Support (defined above) that increase performance, reliability, or value. Labor and purchases for replacement or maintenance items ARE NOT fabrication.
	XR_2.2.1		U553812-XR221	Conolly	Fabrication labor and materials for things essential to S1 Cave Upgrade.
IT/Computing					
	XR_3.1	U553803-XR31		Sun	Data storage, experimental controls software (SPEC/EPICS), standard beamline software (matlab, etc.), networking, controls computing support, distributed scoreboards, operations printers. Also stand alone capital equipment. (Other than partner projects)
	XR_3.2		U553813-XR32	Sun	Fabrication labor and materials for things essential to IT/Computing (defined above) that increase performance, reliability, or value. Labor and purchases for replacement or maintenance items ARE NOT fabrication.
Cryogenics					
	XR_4.1	U553804-XR41		Sabol	Liquid helium, liquid nitrogen supply only; not cryocoolers.
	XR_4.2		U553814-XR42	Sabol	Fabrication labor and materials for things essential to Cryogenics (defined above) that increase performance, reliability, or value. Labor and purchases for replacement or maintenance items ARE NOT fabrication.
Engineering, Design, & Fabrication					
	XR_5.1	U553805-XR51		O'Connell	Engineering effort including design, shop drawings, ANSYS analysis, machining and assembly of such. Computing hardware and support of engineering activities. Also stand alone capital equipment. (Other than partner projects)
	XR_5.2		U553815-XR52	O'Connell	Fabrication labor and materials for things essential to Engineering, Design, & Fabrication (defined above) that increase performance, reliability, or value. Labor and purchases for replacement or maintenance items ARE NOT fabrication.
	XR_5.2.1		U553815-XR521	O'Connell	Fabrication labor and materials for Standard Optical Table Build/Refurbish.
Electronics & Instrumentation					
	XR_6.1	U553806-XR61		Barley	Includes CLASSE electronics shop repair , maintenance, assembly, testing, and design/development of CHES electronics chassis, cabling, and circuit boards. Also stand alone capital equipment. (Other than partner projects)
	XR_6.2		U553816-XR62	Barley	Fabrication labor and purchases for things essential to Electronics & Instrumentation (defined above) that increase performance, reliability, or value. Labor and purchases for replacement or maintenance items ARE NOT fabrication.
Facilities, Utilities, General Ops, and Safety					
	XR_7.1	U553807-XR71		Gallagher	CHES Electrical, fire safety, plumbing , compressed air. Also stand alone capital equipment. (Other than partner projects)
	XR_7.2		U553817-XR72	Gallagher	Fabrication labor and materials for things essential to Facilities, Utilities, General Ops, and Safety (defined above) that increase performance, reliability, or value. Labor and purchases for replacement or maintenance items ARE NOT fabrication.
Other/Admin/Management					

