NOvA Project Office

CHANGE REQUEST RECORD

NOvA-CR No.	56
Related NOvA-DCN No.	
Date Initiated	12/29/2008
Date Revised:	2/4/2009
Date Closed	
Level of Change	L4 (NOVA PM)
Status	Prelim Approval
Awaiting:	Heller

PRELIMINARY

Cost Impact: $134,714.00

Schedule Impact: none

PM GO-AHEAD

DATE

FINAL APPROVAL

Final Cost Impact: $136,169.32 from Project Financial Officer

Final Schedule Impact: none from Project Scheduler

by email	2-24-09
CONTROL ACCOUNT MANAGER (+ L2 MGR IF DIFFERENT)	DATE
[signature]	2/24/09
PROJECT MANAGER	DATE
Susanne L Daper	2/24/09
FINANCIAL OFFICER	DATE
W. S. Freeman	2/24/09
SCHEDULER	DATE
ASSOCIATE DIRECTOR FOR RESEARCH (IF REQ'D)	DATE
DOE FEDERAL PROJECT DIRECTOR (IF REQ'D)	DATE

SUBMITTED INFORMATION

CR Title: PVC Modules – Accommodating 2-Glue Sealing Solution

Change Type: ☑ Technical ☑ Cost ☑ Schedule ☐ Other

Initiator Name: Heller

Control Account Manager: Heller

Initiator Email: heller@physics.umn.edu

Affected WBS #'s: new tasks: 1.5.4.2.13, 1.5.5.16, 1.5.5.17, 1.5.7.1.6, existing 1.5.7.3.6

Change Description:

Create new tasks for 1st 4 activities, revise 5th task

New 1.5.4.2.13 - This requests a second glue machine to accommodate the two types of glue necessary to seal the manifolds and end plates for the PVC modules. From the R&D program it was found that two different glues were required for sealing the modules, one that is chemically inert and one that provides the strength. This has no impact on the other project costs nor on the schedule and milestones. It is necessary to construct the IPND.

New 1.5.5.16 - This requests the additional labor and M&S to implement pressure testing for the inner glue seal as well as the outer glue seal for PVC modules. Each seal is a different glue that is tested at a different pressure and requires a separate pressure test. This is necessary because R&D found that a two glue solution was necessary for PVC module sealing. This has no impact on other costs and the schedule for other activities. It does increase the schedule for this wbs item.

New 1.5.5.17 - Additional technician to work on software and hardware interface for the manufacturing QA system for the IPND and the additional cost of the computers and ancillary hardware to implement it. This cost was not included in the wbs item by mistake.

New 1.5.7.1.6 - This change is requested to implement the additional factory tooling needed for the two glue sealing solution for the PVC modules. This necessary to assure a reliable seal for the modules based on previous

NOvA Project Office

CHANGE REQUEST RECORD

R&D. Specifically the additional M&S will be for 2 corona discharge machines for surface preparation and the materials and supplies to build a robot to deliver the inner seal glue in a uniform manner. The additional labor is primarily to design, build, and test this robot prior to constructing the IPND. Additional materials, supplies, and labor will be used to build a pallet jack system for moving the extrusions and modules for shipping and an improved vacuum lifter for module assembly.

1.5.7.3.6 - Expendable materials such as protective gloves not correctly included in the original costs. This has no impact on other costs or schedule.

CR File found in NOVA-doc- 3554

BUDGET INFORMATION ($FY07 unburdened)

MS Cost Before Change: see spreadsheet in docdb

MS Cost After Change: see spreadsheet in docdb

Labor Resource Type: (one resource per line) Hours Before Change: Hours After Change:

see spreadsheet in docdb

SCHEDULE INFORMATION

BEFORE CHANGE (from Open Plan)

Duration Before Change: see spreadsheet in docdb days Start Date: End Date :

AFTER CHANGE

Duration After Change: days Start Date: End Date:

Elaine McCluskey

From: heller@physics.umn.edu
Sent: Tuesday, February 24, 2009 1:33 PM
To: Elaine McCluskey
Subject: RE: NOVA CRs - just need email approval

Elaine,
Yes both are fine.
ken

> Ken
> Sorry about CR055, here's the real version. Please let me know if you
> approve both CR055 and CR056 - need to be explicit so that I can put
> that in the file. Thanks.
> ++
> Elaine McCluskey
>
>
> -----Original Message-----
> From: heller@physics.umn.edu [mailto:heller@physics.umn.edu]
> Sent: Tuesday, February 24, 2009 10:59 AM
> To: Elaine McCluskey
> Subject: Re: NOVA CRs - just need email approval
> Importance: High
>
> Elaine,
> Sorry. I have been busy and my computer was invaded by a worm and a
> Trojan horse bypassing the 3 protection programs I have installed. It
> has taken me about a week to get my computer functioning again. In
> any case, the CR055 was empty in the version you sent me. The other
> one was fine.
> Ken
>
>> Ken
>> If you don't have time to actually sign these and return them, could
>> you please respond to this email and just say you approve them? Then
>> I can continue processing them with that in hand.
>> ++
>> Elaine McCluskey
>>
>>
>> -----Original Message-----
>> From: Elaine McCluskey [mailto:mccluskey@fnal.gov]
>> Sent: Wednesday, February 18, 2009 8:58 AM
>> To: 'Ken Heller'
>> Cc: 'John Cooper'
>> Subject: FW: NOVA CRs needing your approval - ignore prior email
>> Importance: High
>>
>> Ken
>> Sorry, it's not CR030, but these two that need your attention. I
>> picked the wrong email to forward. We need to hear from you on this.
>> ++
>> Elaine McCluskey
>>

>>
>> -----Original Message-----
>> From: Elaine McCluskey [mailto:mccluskey@fnal.gov]
>> Sent: Thursday, February 05, 2009 2:57 PM
>> To: heller@physics.umn.edu
>> Subject: NOVA CRs needing your approval
>>
>> Ken
>> Here are the 2 CRs you submitted recently. Please review, print out,
>> sign, and then return to me. Thanks.
>> Elaine
>>
>
>

PVC Modules – Accommodating 2-Glue Sealing Solution						
	M&S Before	**M&S After**	**Labor Resources**	**Hours before**	**Hours after**	**New End Date**
new 1.5.4.2.13	$0	40,000.00	L.UMNTC.PD.ENG.COOP	0	20	
			L.MUNTC.PD.ENG.ME	0	16	
			L.UMNTC.PD.SCI.PHY	0	40	
			L.UMNTC.PD.TECH.LDR	0	80	
			L.UMNTC.PD.TECH.UGRAD	0	80	
new 1.5.5.16	$0	5,000.00	L.UMNTC.PD.SCI.PHY	0	95	19-Mar-09
			L.UMNTC.PD.TECH.LDR	0	54	
			L.UMNTC.PD.TECH.UGRAD	0	134	
			L.UMNTC.PD.TECH.MT_M	0	200	
new 1.5.5.17	$0	5,877.60	L.UMNTC.PD.TECH.MT_M	0	80	
new 1.5.7.1.6	$0	37,000.00	L.UMNTC.PD.ENG.ME	0	14	
			L.UMNTC.PD.SCI.PHY	0	37	
			L.UMNTC.PD.TECH.UGRAD	0	300	
			L.UMNTC.PD.TECH.MT_M	0	85	
			L.UMNTC.PD.ENG.COOP	0	40	
1.5.7.3.6	$13,623	18,884.00	none			

unless noted, make these new tasks start in Jan 09 and finish with the current end of the existing tasks (FF)

Nova Project
WBS 1.5
Subsection by Control and Cost Account
ChangeRequest [CR056]
Before OBL Baseline Update after EAC changes

AY Dollars
Baseline: Ken_OBL

Activity ID	Activity Description	Change Request Numbers	Computed Status	Orig. Dur.	Early Dates	Baseline Dates	Cost Account	Control Account	Resp. Inst.	PMT Type	Fund Source	Units To Do	BAC Material	BAC Labor	BACcum	M&S Cont. %	M&S Cont. $	Labor Cont. %	Labor Cont. $	EAC	VAC
1.5 -- PVC Module R&D																					
												310	$14,168	$102,583	$116,751	18%	$2,550	35%	$35,904	$251,518	($134,767)
1.5.10.5 -- PVC Module R&D																					
1.5.4.2.13	Additional end seal and manifold gluing machine	[CR056]	**Planned**	40d	**16Feb09 10Apr09**		1.5.10.5	1.5	UMNTC	E	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$46,783**	**($46,783)**
1.5.5.16	Develop methods for pressure testing - 2 - Part 2 - Continued	[CR056]	**Planned**	40d	**13Feb09 09Apr09**		1.5.10.5	1.5	UMNTC	C	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$19,040**	**($19,040)**
1.5.5.17	Develop QA tracking system procedures, software and training - Part 2 - additional	[CR056]	**Planned**	89d	**02Jan09 07May09**		1.5.10.5	1.5	UMNTC	C	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$10,449**	**($10,449)**
1.5.7.1.6	Install and setup additional infrastructure and factory machines - Part 2 - continued	[CR056]	**Planned**	60d	**16Feb09 08May09**		1.5.10.5	1.5	UMNTC	C	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$54,048**	**($54,048)**
1.5.7.3.6	Produce IPND modules	[CR035];[CR056]	**Planned**	104d	**05Jun09 30Oct09**	**08Jul09 03Dec09**	1.5.10.5	1.5	UMNTC	D	DR	310	**$14,168**	**$102,583**	**$116,751**	18%	$2,550	35%	$35,904	**$121,197**	**($4,446)**
												310	$14,168	$102,583	$116,751	18%	$2,550	35%	$35,904	$251,518	($134,767)

Nova Project
WBS 1.5
Subsection by Control and Cost Account
ChangeRequest [CR056]
Before PMB Baseline Update after EAC changes

AY Dollars
Baseline: Nova_PMB

Activity ID	Activity Description	Change Request Numbers	Computed Status	Orig. Dur.	Early Dates	Baseline Dates	Cost Account	Control Account	Resp. Inst.	PMT Type	Fund Source	Units To Do	BAC Material	BAC Labor	BACcum	M&S Cont. %	M&S Cont. $	Labor Cont. %	Labor Cont. $	EAC	VAC
1.5 -- PVC Module R&D																					
												310	$14,341	$102,583	$116,924	18%	$2,581	35%	$35,904	$251,638	($134,714)
1.5.10.5 -- PVC Module R&D																					
1.5.4.2.13	Additional end seal and manifold gluing machine	[CR056]	**Planned**	40d	**16Feb09 10Apr09**		1.5.10.5	1.5	UMNTC	E	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$46,783**	**($46,783)**
1.5.5.16	Develop methods for pressure testing - 2 - Part 2 - Continued	[CR056]	**Planned**	40d	**13Feb09 09Apr09**		1.5.10.5	1.5	UMNTC	C	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$19,040**	**($19,040)**
1.5.5.17	Develop QA tracking system procedures, software and training - Part 2 - additional	[CR056]	**Planned**	89d	**02Jan09 07May09**		1.5.10.5	1.5	UMNTC	C	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$10,449**	**($10,449)**
1.5.7.1.6	Install and setup additional infrastructure and factory machines - Part 2 - continued	[CR056]	**Planned**	60d	**16Feb09 08May09**		1.5.10.5	1.5	UMNTC	C	DR	0	**$0**	**$0**	**$0**	0%	$0	0%	$0	**$54,048**	**($54,048)**
1.5.7.3.6	Produce IPND modules	[CR035];[CR056]	**Planned**	104d	**05Jun09 30Oct09**	**08Jul09 03Dec09**	1.5.10.5	1.5	UMNTC	D	DR	310	**$14,341**	**$102,583**	**$116,924**	18%	$2,581	35%	$35,904	**$121,317**	**($4,393)**
												310	$14,341	$102,583	$116,924	18%	$2,581	35%	$35,904	$251,638	($134,714)

Nova Project
WBS 1.5
Subsection by Control and Cost Account
ChangeRequest [CR056]
After OBL Baseline Update after EAC changes

AY Dollars
Baseline: Ken_OBL

Activity ID	Activity Description	Change Request Numbers	Computed Status	Orig. Dur.	Early Dates	Baseline Dates	Cost Account	Control Account	Resp. Inst.	PMT Type	Fund Source	Units To Do	BAC Material	BAC Labor	BACcum	M&S Cont. %	M&S Cont. $	Labor Cont. %	Labor Cont. $	EAC	VAC
1.5 -- PVC Module R&D																					
												310	$111,032	$141,511	$252,543	18%	$3,535	35%	$35,904	$251,518	$1,026
1.5.10.5 -- PVC Module R&D																					
1.5.4.2.13	Additional end seal and manifold gluing machine	[CR056]	**Planned**	40d	**16Feb09 10Apr09**	**16Feb09 10Apr09**	1.5.10.5	1.5	UMNTC	E	DR	0	**$41,600**	**$5,183**	**$46,783**	0%	$0	0%	$0	**$46,783**	**$0**
1.5.5.16	Develop methods for pressure testing - 2 - Part 2 - Continued	[CR056]	**Planned**	40d	**13Feb09 09Apr09**	**13Feb09 09Apr09**	1.5.10.5	1.5	UMNTC	C	DR	0	**$5,200**	**$13,840**	**$19,040**	0%	$0	0%	$0	**$19,040**	**$0**
1.5.5.17	Develop QA tracking system procedures, software and training - Part 2 - additional	[CR056]	**Planned**	89d	**02Jan09 07May09**	**02Jan09 07May09**	1.5.10.5	1.5	UMNTC	C	DR	0	**$6,113**	**$4,336**	**$10,449**	0%	$0	0%	$0	**$10,449**	**$0**
1.5.7.1.6	Install and setup additional infrastructure and factory machines - Part 2 - continued	[CR056]	**Planned**	60d	**16Feb09 08May09**	**16Feb09 08May09**	1.5.10.5	1.5	UMNTC	C	DR	0	**$38,480**	**$15,568**	**$54,048**	0%	$0	0%	$0	**$54,048**	**$0**
1.5.7.3.6	Produce IPND modules	[CR035];[CR056]	**Planned**	104d	**05Jun09 30Oct09**	**08Jul09 03Dec09**	1.5.10.5	1.5	UMNTC	D	DR	310	**$19,639**	**$102,583**	**$122,222**	18%	$3,535	35%	$35,904	**$121,197**	**$1,026**
												310	$111,032	$141,511	$252,543	18%	$3,535	35%	$35,904	$251,518	$1,026

Nova Project
WBS 1.5
Subsection by Control and Cost Account
ChangeRequest [CR056]
After PMB Baseline Update after EAC changes

AY Dollars
Baseline: Nova_PMB

Activity ID	Activity Description	Change Request Numbers	Computed Status	Orig. Dur.	Early Dates	Baseline Dates	Cost Account	Control Account	Resp. Inst.	PMT Type	Fund Source	Units To Do	BAC Material	BAC Labor	BACcum	M&S Cont. %	M&S Cont. $	Labor Cont. %	Labor Cont. $	EAC	VAC
1.5 -- PVC Module R&D																					
												310	$111,272	$141,511	$252,783	18%	$3,578	35%	$35,904	$251,638	$1,145
1.5.10.5 -- PVC Module R&D																					
1.5.4.2.13	Additional end seal and manifold gluing machine	[CR056]	**Planned**	40d	**16Feb09 10Apr09**	**16Feb09 10Apr09**	1.5.10.5	1.5	UMNTC	E	DR	0	**$41,600**	**$5,183**	**$46,783**	0%	$0	0%	$0	**$46,783**	**$0**
1.5.5.16	Develop methods for pressure testing - 2 - Part 2 - Continued	[CR056]	**Planned**	40d	**13Feb09 09Apr09**	**13Feb09 09Apr09**	1.5.10.5	1.5	UMNTC	C	DR	0	**$5,200**	**$13,840**	**$19,040**	0%	$0	0%	$0	**$19,040**	**$0**
1.5.5.17	Develop QA tracking system procedures, software and training - Part 2 - additional	[CR056]	**Planned**	89d	**02Jan09 07May09**	**02Jan09 07May09**	1.5.10.5	1.5	UMNTC	C	DR	0	**$6,113**	**$4,336**	**$10,449**	0%	$0	0%	$0	**$10,449**	**$0**
1.5.7.1.6	Install and setup additional infrastructure and factory machines - Part 2 - continued	[CR056]	**Planned**	60d	**16Feb09 08May09**	**16Feb09 08May09**	1.5.10.5	1.5	UMNTC	C	DR	0	**$38,480**	**$15,568**	**$54,048**	0%	$0	0%	$0	**$54,048**	**$0**
1.5.7.3.6	Produce IPND modules	[CR035];[CR056]	**Planned**	104d	**05Jun09 30Oct09**	**08Jul09 03Dec09**	1.5.10.5	1.5	UMNTC	D	DR	310	**$19,879**	**$102,583**	**$122,462**	18%	$3,578	35%	$35,904	**$121,317**	**$1,145**
												310	$111,272	$141,511	$252,783	18%	$3,578	35%	$35,904	$251,638	$1,145

Program:		Description:						
NOVA		NOvA Project						
Run Date:		Status Date:						
2/4/2009		1/31/2009						
Control Ac	*Cost A*	*WP*		*MAY07*	*JUN07*	*JUL07*	*AUG07*	*SEP07*
1.5 PVC Module R&D								
	1.5.10.5 PVC Module R&D							
		1.5.10.2.8.1 Labor	BCWS	10,552	10,072	10,072	11,032	8,506
		1.5.10.2.8.2 Travel	BCWS	3,752	3,581	3,581	3,922	3,024
		1.5.10.3.1 Labor	BCWS	0	0	0	0	0
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	0	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	9,828	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	11,449	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	439	1,588	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	4,582	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	3,600	1,260	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	776	1,252	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	1,227	2,375	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	2,569	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	591	1,360	1,123
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	2,061	0	0	0	0
		1.5.2.2.11 Review design	BCWS	2,055	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	1,500	1,849	1,789	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	2,207	2,107	2,107	2,307	1,906
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	1,139	1,087	1,087	1,190	983
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0
		1.5.3.7 Design integration prototype	BCWS	18,670	0	0	0	0
		1.5.3.8 Review design	BCWS	1,028	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	5,138	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	19,500	18,614	6,605	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	6,280	5,995	5,995	6,566	5,424
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	438	418	418	457	378
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	3,353	3,201	3,201	3,506	2,896

Program:		Description:						
NOVA		NOvA Project						
Run Date:		Status Date:						
2/4/2009		1/31/2009						
Control Ac	*Cost A*	*WP*		*OCT07*	*NOV07*	*DEC07*	*JAN08*	*FEB08*
1.5 PVC Module R&D								
	1.5.10.5 PVC Module R&D							
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	12,307	11,702	10,050	10,566	10,566
		1.5.10.3.2 Travel	BCWS	1,811	1,722	1,479	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	0	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	1,425	1,239	1,115	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	2,418	2,103	1,893	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	1,248	1,085	976	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	3,908	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	472	410	369	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	3,619	3,147	2,832	0	0

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	Cost A	WP		MAR08	APR08	MAY08	JUN08	JUL08
1.5 PVC Module R&D								
	1.5.10.5 PVC Module R&D							
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	10,566	11,069	10,566	10,566	11,069
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	0	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	0	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	0	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	0	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	0	0	0	0	0

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	Cost A	WP		AUG08	SEP08	FEB09	MAR09	APR09
1.5 PVC Module R&D								
	1.5.10.5 PVC Module R&D							
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	10,566	10,063	0	0	0
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	0	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	2,026	1,924	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	0	0	1,846	2,031	2,031
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	0	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	0	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	0	0	3,578	3,936	3,936
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	0	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	780	858	858
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	19,627	20,608	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	3,368	3,704	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	530	583	583
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	0	0	1,122	1,234	1,234
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	15,847	15,847	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	0	0	0	0	0

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	Cost A	WP		MAY09	JUN09	JUL09	AUG09	SEP09
1.5 PVC Module R&D								
	1.5.10.5 PVC Module R&D							
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	0	0	0	0	0
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	117	427	427	408	408
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	1,846	2,031	2,031	1,938	1,938
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	0	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	0	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	3,578	3,936	3,936	3,757	3,757
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	0	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	390	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	530	371	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	1,122	1,234	1,234	1,178	1,178
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	0	0	0	0	0

Program:		Description:					
NOVA		NOvA Project					
Run Date:		Status Date:					
2/4/2009		1/31/2009					
Control Ac	*Cost A*	*WP*		*OCT09*	*NOV09*	*DEC09*	*JAN10*
1.5 PVC Module R&D							
	1.5.10.5 PVC Module R&D						
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0
		1.5.10.3.1 Labor	BCWS	0	0	0	0
		1.5.10.3.2 Travel	BCWS	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	448	387	61	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	2,031	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	297	2,672	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	3,938	0	0	0
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	292	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	0	0	0	0

Program:		Description:		
NOVA		NOvA Project		
Run Date:		Status Date:		
2/4/2009		1/31/2009		
Control Ac	*Cost A*	*WP*		*Cumulative*
1.5 PVC Module R&D				
	1.5.10.5 PVC Module R&D			
		1.5.10.2.8.1 Labor	BCWS	50,234
		1.5.10.2.8.2 Travel	BCWS	17,860
		1.5.10.3.1 Labor	BCWS	129,657
		1.5.10.3.2 Travel	BCWS	5,013
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	2,684
		1.5.2.1.1.10.1 Manufacture snout	BCWS	9,828
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	11,449
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	2,028
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	4,582
		1.5.2.1.1.10.5 Fiber raceways	BCWS	4,860
		1.5.2.1.1.10.6 Fiber cover	BCWS	2,028
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	3,602
		1.5.2.1.1.12 Review design	BCWS	2,569
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	6,852
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	3,950
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	2,061
		1.5.2.2.11 Review design	BCWS	2,055
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	5,138
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	17,723
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	17,048
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	8,795
		1.5.2.3.8 Document lifetime tests	BCWS	2,969
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	34,354
		1.5.3.7 Design integration prototype	BCWS	18,670
		1.5.3.8 Review design	BCWS	1,028
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	5,138
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	44,719
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	34,167
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	3,359
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	2,886
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	40,234
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	7,072
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	2,596
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	9,829
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	31,694
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	25,756

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	*Cost A*	*WP*		*MAY07*	*JUN07*	*JUL07*	*AUG07*	*SEP07*
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	931	888	888	973	804
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	213	203	203	223	184
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	2,213	2,112	2,112	2,313	1,911
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	55	45
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	239	2,507	2,507	1,459	1,164
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	3,660	4,091
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	2,985	11,345
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0
	Cost Account Totals:		BCWS	106,801	57,961	46,100	47,146	43,783
Control Acct[21] Totals:			BCWS	106,801	57,961	46,100	47,146	43,783
Grand Totals:								
			BCWS	106,801	57,961	46,100	47,146	43,783

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	Cost A	WP		OCT07	NOV07	DEC07	JAN08	FEB08
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	1,002	871	784	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	230	200	180	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	2,410	2,096	1,886	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	57	50	45	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	973	894	786	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	5,069	4,408	3,967	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	14,050	12,217	10,995	12,217	0
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0
	Cost Account Totals:		BCWS	50,999	42,144	37,358	22,783	10,566
Control Acct[21] Totals:			BCWS	50,999	42,144	37,358	22,783	10,566
Grand Totals:								
			BCWS	50,999	42,144	37,358	22,783	10,566

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	*Cost A*	*WP*		*MAR08*	*APR08*	*MAY08*	*JUN08*	*JUL08*
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	0	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0
	Cost Account Totals:		BCWS	10,566	11,069	10,566	10,566	11,069
Control Acct[21] Totals:			BCWS	10,566	11,069	10,566	10,566	11,069
Grand Totals:								
			BCWS	10,566	11,069	10,566	10,566	11,069

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	Cost A	WP		AUG08	SEP08	FEB09	MAR09	APR09
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	0	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	2,348	2,582	2,582
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	13,926	15,319	15,319
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	14,218	15,639	15,639
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	16,440	8,220	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	29,330	32,263	32,263
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	39,926	43,919	43,919
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	23,534	25,887	9,413
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	5,131	5,644	2,052
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	6,504	7,154	7,154
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	12,221	12,221	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	46,080	2,304	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0
	Cost Account Totals:		BCWS	10,566	10,063	258,381	221,879	136,985
Control Acct[21] Totals:			BCWS	10,566	10,063	258,381	221,879	136,985
Grand Totals:								
			BCWS	10,566	10,063	258,381	221,879	136,985

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	*Cost A*	*WP*		*MAY09*	*JUN09*	*JUL09*	*AUG09*	*SEP09*
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	0	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	2,348	235	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	696	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	14,218	15,639	2,844	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	8,799	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	31,941	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	5,289	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	6,504	325	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	5,289	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	19,863	23,174	23,174
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0
	Cost Account Totals:		BCWS	72,088	29,488	35,625	30,456	30,456
Control Acct[21] Totals:			BCWS	72,088	29,488	35,625	30,456	30,456
Grand Totals:								
			BCWS	72,088	29,488	35,625	30,456	30,456

Program:		Description:					
NOVA		NOvA Project					
Run Date:		Status Date:					
2/4/2009		1/31/2009					
Control Ac	*Cost A*	*WP*		*OCT09*	*NOV09*	*DEC09*	*JAN10*
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	25,361	21,903	3,458	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	10,670	0
		1.5.8.2 Review manifold design	BCWS	0	0	4,619	1,980
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	4,744	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	4,619	1,980
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	828	355	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	2,454	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	2,011	355
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	2,454
	Cost Account Totals:		BCWS	32,367	25,790	32,990	6,768
Control Acct[21] Totals:			BCWS	32,367	25,790	32,990	6,768
Grand Totals:							
			BCWS	32,367	25,790	32,990	6,768

Program:		Description:		
NOVA		NOvA Project		
Run Date:		Status Date:		
2/4/2009		1/31/2009		
Control Ac	*Cost A*	*WP*		*Cumulative*
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	7,140
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	1,636
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	17,055
		1.5.6 Module Shipping and Storage R&D	BCWS	252
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	10,529
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	10,095
		1.5.7.3.1.1 Manufacture snout	BCWS	45,261
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	78,197
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	24,660
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	102,656
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	159,705
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	58,834
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	12,827
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	5,289
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	27,640
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	21,194
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	24,443
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	48,384
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	5,289
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	63,810
		1.5.7.3.6 Produce IPND modules	BCWS	116,933
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	10,670
		1.5.8.2 Review manifold design	BCWS	6,599
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	4,744
		1.5.8.4 Review bottom plate design	BCWS	6,599
		1.5.9.1 Document assembly process, procedures, and training	BCWS	1,183
		1.5.9.2 Review assembly process, procedures, and training	BCWS	2,454
		1.5.9.3 Document factory machines and functioning	BCWS	2,366
		1.5.9.4 Review factory machines and functioning	BCWS	2,454
	Cost Account Totals:		BCWS	1,453,380
Control Acct[21] Totals:			BCWS	1,453,380
Grand Totals:				
			BCWS	1,453,380

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	CTC	WP		MAY07	JUN07	JUL07	AUG07	SEP07	OCT07
1.5 PVC Module R&D									
	1.5.10.5 PVC Module R&D								
		1.5.10.2.8.1 Labor	BCWS	10,552	10,072	10,072	11,032	8,506	0
		1.5.10.2.8.2 Travel	BCWS	3,752	3,581	3,581	3,922	3,024	0
		1.5.10.3.1 Labor	BCWS	0	0	0	0	0	12,307
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0	1,811
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	9,828	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	11,449	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	439	1,588	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	4,582	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	3,600	1,260	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	776	1,252	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	1,227	2,375	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	2,569	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	591	1,360	1,123	1,425
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	2,061	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	2,055	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	1,500	1,849	1,789	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	2,207	2,107	2,107	2,307	1,906	2,418
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	1,139	1,087	1,087	1,190	983	1,248
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0	0
		1.5.3.7 Design integration prototype	BCWS	18,670	0	0	0	0	0
		1.5.3.8 Review design	BCWS	1,028	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	5,138	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	19,500	18,614	6,605	0	0	0
		1.5.4.2.13 Additional end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	6,280	5,995	5,995	6,566	5,424	3,908
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	438	418	418	457	378	472
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0	0

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	CTC	WP		NOV07	DEC07	JAN08	FEB08	MAR08	APR08
1.5 PVC Module R&D									
	1.5.10.5 PVC Module R&D								
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	11,702	10,050	10,566	10,566	10,566	11,069
		1.5.10.3.2 Travel	BCWS	1,722	1,479	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	1,239	1,115	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	2,103	1,893	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	1,085	976	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0	0
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.13 Additional end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	410	369	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0	0

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	CTC	WP		MAY08	JUN08	JUL08	AUG08	SEP08	JAN09
1.5 PVC Module R&D									
	1.5.10.5 PVC Module R&D								
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	10,566	10,566	11,069	10,566	10,063	0
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	0	0	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	0	0	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	0	0	0	0	0	0
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.13 Additional end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	0	0	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0	0

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	CTC	WP		FEB09	MAR09	APR09	MAY09	JUN09	JUL09
1.5 PVC Module R&D									
	1.5.10.5 PVC Module R&D								
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	0	0	0	0	0	0
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	0	0	0	117	427	427
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	2,026	1,924	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	1,846	2,031	2,031	1,846	2,031	2,031
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	0	0	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	0	0	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	0	0	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	3,578	3,936	3,936	3,578	3,936	3,936
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.13 Additional end seal and manifold gluing machine	BCWS	11,731	25,808	9,385	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	0	0	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	780	858	858	390	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	19,627	20,608	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	3,368	3,704	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	530	583	583	530	371	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	1,122	1,234	1,234	1,122	1,234	1,234
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	15,847	15,847	0	0	0	0

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	CTC	WP		AUG09	SEP09	OCT09	NOV09	DEC09	JAN10
1.5 PVC Module R&D									
	1.5.10.5 PVC Module R&D								
		1.5.10.2.8.1 Labor	BCWS	0	0	0	0	0	0
		1.5.10.2.8.2 Travel	BCWS	0	0	0	0	0	0
		1.5.10.3.1 Labor	BCWS	0	0	0	0	0	0
		1.5.10.3.2 Travel	BCWS	0	0	0	0	0	0
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	408	408	448	387	61	0
		1.5.2.1.1.10.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.5 Fiber raceways	BCWS	0	0	0	0	0	0
		1.5.2.1.1.10.6 Fiber cover	BCWS	0	0	0	0	0	0
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	0	0	0	0	0	0
		1.5.2.1.1.12 Review design	BCWS	0	0	0	0	0	0
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	0	0	0	0	0	0
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	0	0	0	0	0	0
		1.5.2.2.11 Review design	BCWS	0	0	0	0	0	0
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	1,938	1,938	2,031	0	0	0
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	0	0	0	0	0	0
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	0	0	0	0	0	0
		1.5.2.3.8 Document lifetime tests	BCWS	0	0	297	2,672	0	0
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	3,757	3,757	3,938	0	0	0
		1.5.3.7 Design integration prototype	BCWS	0	0	0	0	0	0
		1.5.3.8 Review design	BCWS	0	0	0	0	0	0
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	0	0	0	0	0	0
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.13 Additional end seal and manifold gluing machine	BCWS	0	0	0	0	0	0
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	0	0	0	0	0	0
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	0	0	0	0	0	0
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0	0
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	0	0	0	0	0	0
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	1,178	1,178	292	0	0	0
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	0	0	0	0	0	0

Program:		Description:		
NOVA		NOvA Project		
Run Date:		Status Date:		
2/4/2009		1/31/2009		
Control Ac	*CTC*	*WP*		*Cumulative*
1.5 PVC Module R&D				
	1.5.10.5 PVC Module R&D			
		1.5.10.2.8.1 Labor	BCWS	50,234
		1.5.10.2.8.2 Travel	BCWS	17,860
		1.5.10.3.1 Labor	BCWS	129,657
		1.5.10.3.2 Travel	BCWS	5,013
		1.5.11 Module Shipping and Storage R&D - Part 2	BCWS	2,684
		1.5.2.1.1.10.1 Manufacture snout	BCWS	9,828
		1.5.2.1.1.10.2 Manufacture manifold covers	BCWS	11,449
		1.5.2.1.1.10.3 Manufacture fill tubes	BCWS	2,028
		1.5.2.1.1.10.4 Manufacture side and center seals	BCWS	4,582
		1.5.2.1.1.10.5 Fiber raceways	BCWS	4,860
		1.5.2.1.1.10.6 Fiber cover	BCWS	2,028
		1.5.2.1.1.11 Test integration prototype manifolds	BCWS	3,602
		1.5.2.1.1.12 Review design	BCWS	2,569
		1.5.2.1.1.13 Finalize design of preproduction prototype (for IPND)	BCWS	6,852
		1.5.2.1.1.15 Finalize design of preproduction prototype (for IPND) - P	BCWS	3,950
		1.5.2.1.1.9 Finalize integration prototype design - 2	BCWS	2,061
		1.5.2.2.11 Review design	BCWS	2,055
		1.5.2.2.12 Finalize design of preproduction prototype (for IPND)	BCWS	5,138
		1.5.2.3.10 Chemical lifetime tests of joining systems - Part 2	BCWS	17,723
		1.5.2.3.6 Mechanical lifetime tests of joining systems	BCWS	17,048
		1.5.2.3.7 Chemical lifetime tests of joining systems	BCWS	8,795
		1.5.2.3.8 Document lifetime tests	BCWS	2,969
		1.5.2.3.9 Mechanical lifetime tests of joining systems - Part 2	BCWS	34,354
		1.5.3.7 Design integration prototype	BCWS	18,670
		1.5.3.8 Review design	BCWS	1,028
		1.5.3.9 Finalize design of preproduction prototype (for IPND)	BCWS	5,138
		1.5.4.2.11 Develop end seal and manifold gluing machine	BCWS	44,719
		1.5.4.2.13 Additional end seal and manifold gluing machine	BCWS	46,923
		1.5.4.2.6 Develop pre-production prototype extrusion fiber-stringing m	BCWS	34,167
		1.5.5.1 Develop methods for extrusion quality checkout	BCWS	3,359
		1.5.5.10 Develop methods for extrusion quality checkout - Part 2	BCWS	2,886
		1.5.5.11 Develop methods for pressure testing - 2 - Part 2	BCWS	40,234
		1.5.5.12 Develop methods for verifying fiber mapping and fiber contin	BCWS	7,072
		1.5.5.13 Develop methods for assuring fiber-face tolerance - Part 2	BCWS	2,596
		1.5.5.14 Develop QA tracking system procedures, software and training	BCWS	9,829
		1.5.5.15 Procure and setup additional leak-checking hardware for IPND	BCWS	31,694

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	CTC	WP		MAY07	JUN07	JUL07	AUG07	SEP07	OCT07
		1.5.5.16 Develop methods for pressure testing - 2 - Part 2 - Continue	BCWS	0	0	0	0	0	0
		1.5.5.17 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	3,353	3,201	3,201	3,506	2,896	3,619
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	931	888	888	973	804	1,002
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	213	203	203	223	184	230
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	2,213	2,112	2,112	2,313	1,911	2,410
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	55	45	57
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	239	2,507	2,507	1,459	1,164	973
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.1.6 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	3,660	4,091	5,069
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	2,985	11,345	14,050
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0	0
	Cost Account Totals:		BCWS	106,801	57,961	46,100	47,146	43,783	50,999
Control Acct[21] Totals:			BCWS	106,801	57,961	46,100	47,146	43,783	50,999
Grand Totals:									
			BCWS	106,801	57,961	46,100	47,146	43,783	50,999

Program:		Description:							
NOVA		NOvA Project							
Run Date:		Status Date:							
2/4/2009		1/31/2009							
Control Ac	*CTC*	*WP*		*NOV07*	*DEC07*	*JAN08*	*FEB08*	*MAR08*	*APR08*
		1.5.5.16 Develop methods for pressure testing - 2 - Part 2 - Continue	BCWS	0	0	0	0	0	0
		1.5.5.17 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	3,147	2,832	0	0	0	0
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	871	784	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	200	180	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	2,096	1,886	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	50	45	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	894	786	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.1.6 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	4,408	3,967	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	12,217	10,995	12,217	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0	0
	Cost Account Totals:		BCWS	42,144	37,358	22,783	10,566	10,566	11,069
Control Acct[21] Totals:			BCWS	42,144	37,358	22,783	10,566	10,566	11,069
Grand Totals:									
			BCWS	42,144	37,358	22,783	10,566	10,566	11,069

Program:		Description:							
NOVA		NOvA Project							
Run Date:		Status Date:							
2/4/2009		1/31/2009							
Control Ac	*CTC*	*WP*		*MAY08*	*JUN08*	*JUL08*	*AUG08*	*SEP08*	*JAN09*
		1.5.5.16 Develop methods for pressure testing - 2 - Part 2 - Continue	BCWS	0	0	0	0	0	0
		1.5.5.17 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	2,353
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	0	0	0	0	0	0
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	0	0	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.1.6 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0	0
	Cost Account Totals:		BCWS	10,566	10,566	11,069	10,566	10,063	2,353
Control Acct[21] Totals:			BCWS	10,566	10,566	11,069	10,566	10,063	2,353
Grand Totals:									
			BCWS	10,566	10,566	11,069	10,566	10,063	2,353

Program:		Description:							
NOVA		NOvA Project							
Run Date:		Status Date:							
2/4/2009		1/31/2009							
Control Ac	*CTC*	*WP*		*FEB09*	*MAR09*	*APR09*	*MAY09*	*JUN09*	*JUL09*
		1.5.5.16 Develop methods for pressure testing - 2 - Part 2 - Continue	BCWS	5,241	10,482	3,335	0	0	0
		1.5.5.17 Develop QA tracking system procedures, software and training	BCWS	2,353	2,588	2,588	588	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	0	0	0	0	0	0
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	0	0	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	2,348	2,582	2,582	2,348	235	0
		1.5.7.1.6 Install and setup additional infrastructure and factory mach	BCWS	9,030	19,866	19,866	5,418	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	13,926	15,319	15,319	696	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	14,218	15,639	15,639	14,218	15,639	2,844
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	16,440	8,220	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	29,330	32,263	32,263	8,799	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	39,926	43,919	43,919	31,941	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	23,534	25,887	9,413	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	5,131	5,644	2,052	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0	5,289
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	6,504	7,154	7,154	6,504	325	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	12,221	12,221	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	46,080	2,304	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	5,289	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	0	0	0	0	0	20,813
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	0	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	0	0
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	0	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	0	0
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	0	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	0	0
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0	0
	Cost Account Totals:		BCWS	286,736	280,623	172,158	78,094	29,488	36,575
Control Acct[21] Totals:			BCWS	286,736	280,623	172,158	78,094	29,488	36,575
Grand Totals:									
			BCWS	286,736	280,623	172,158	78,094	29,488	36,575

Program:	Description:
NOVA	NOvA Project
Run Date:	Status Date:
2/4/2009	1/31/2009

Control Ac	CTC	WP		AUG09	SEP09	OCT09	NOV09	DEC09	JAN10
		1.5.5.16 Develop methods for pressure testing - 2 - Part 2 - Continue	BCWS	0	0	0	0	0	0
		1.5.5.17 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	0	0	0	0	0	0
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	0	0	0	0	0	0
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	0	0	0	0	0	0
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	0	0	0	0	0	0
		1.5.6 Module Shipping and Storage R&D	BCWS	0	0	0	0	0	0
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.1.6 Install and setup additional infrastructure and factory mach	BCWS	0	0	0	0	0	0
		1.5.7.3.1.1 Manufacture snout	BCWS	0	0	0	0	0	0
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	0	0	0	0	0	0
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	0	0	0	0	0	0
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	0	0	0	0	0	0
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	0	0	0	0	0	0
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	0	0	0	0	0	0
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	0	0	0	0	0	0
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	0	0	0	0	0	0
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	0	0	0	0	0	0
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	0	0	0	0	0	0
		1.5.7.3.6 Produce IPND modules	BCWS	24,282	24,282	26,547	22,927	3,620	0
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	0	0	0	0	10,670	0
		1.5.8.2 Review manifold design	BCWS	0	0	0	0	4,619	1,980
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	0	0	0	0	4,744	0
		1.5.8.4 Review bottom plate design	BCWS	0	0	0	0	4,619	1,980
		1.5.9.1 Document assembly process, procedures, and training	BCWS	0	0	0	828	355	0
		1.5.9.2 Review assembly process, procedures, and training	BCWS	0	0	0	0	2,454	0
		1.5.9.3 Document factory machines and functioning	BCWS	0	0	0	0	2,011	355
		1.5.9.4 Review factory machines and functioning	BCWS	0	0	0	0	0	2,454
	Cost Account Totals:		BCWS	31,564	31,564	33,553	26,814	33,152	6,768
Control Acct[21] Totals:			BCWS	31,564	31,564	33,553	26,814	33,152	6,768
Grand Totals:									
			BCWS	31,564	31,564	33,553	26,814	33,152	6,768

Program:		Description:		
NOVA		NOvA Project		
Run Date:		Status Date:		
2/4/2009		1/31/2009		
Control Ac	*CTC*	*WP*		*Cumulative*
		1.5.5.16 Develop methods for pressure testing - 2 - Part 2 - Continue	BCWS	19,059
		1.5.5.17 Develop QA tracking system procedures, software and training	BCWS	10,470
		1.5.5.3 Develop methods for pressure testing - 2	BCWS	25,756
		1.5.5.6 Develop methods for verifying fiber mapping and fiber contin	BCWS	7,140
		1.5.5.8 Develop methods for assuring fiber-face tolerance	BCWS	1,636
		1.5.5.9 Develop QA tracking system procedures, software and training	BCWS	17,055
		1.5.6 Module Shipping and Storage R&D	BCWS	252
		1.5.7.1.3 Install and setup additional infrastructure and factory mach	BCWS	10,529
		1.5.7.1.5 Install and setup additional infrastructure and factory mach	BCWS	10,095
		1.5.7.1.6 Install and setup additional infrastructure and factory mach	BCWS	54,179
		1.5.7.3.1.1 Manufacture snout	BCWS	45,261
		1.5.7.3.1.2 Manufacture manifold covers	BCWS	78,197
		1.5.7.3.1.3 Manufacture fill tubes	BCWS	24,660
		1.5.7.3.1.4 Manufacture side and center seals	BCWS	102,656
		1.5.7.3.1.5 Manufacture fiber raceways	BCWS	159,705
		1.5.7.3.1.6 Manufacture fiber covers	BCWS	58,834
		1.5.7.3.1.7 Manufacture fill tube manifolds	BCWS	12,827
		1.5.7.3.2 Assemble and test IPND manifolds	BCWS	5,289
		1.5.7.3.3.1 Manufacture IPND end plates	BCWS	27,640
		1.5.7.3.3.2 Manufacture side and center seals	BCWS	21,194
		1.5.7.3.3.3 Manufacture fiber retaining rings	BCWS	24,443
		1.5.7.3.3.4 Manufacture side and center seals - Part 2	BCWS	48,384
		1.5.7.3.4 Assemble and test preproduction prototype (IPND) end plates	BCWS	5,289
		1.5.7.3.5 Manufacture preproduction prototype (IPND) optical connector	BCWS	63,810
		1.5.7.3.6 Produce IPND modules	BCWS	122,472
		1.5.8.1 Document preproduction (IPND) prototype manifold	BCWS	10,670
		1.5.8.2 Review manifold design	BCWS	6,599
		1.5.8.3 Document preproduction (IPND) prototype bottom plate	BCWS	4,744
		1.5.8.4 Review bottom plate design	BCWS	6,599
		1.5.9.1 Document assembly process, procedures, and training	BCWS	1,183
		1.5.9.2 Review assembly process, procedures, and training	BCWS	2,454
		1.5.9.3 Document factory machines and functioning	BCWS	2,366
		1.5.9.4 Review factory machines and functioning	BCWS	2,454
	Cost Account Totals:		BCWS	1,589,549
Control Acct[21] Totals:			BCWS	1,589,549
Grand Totals:				
			BCWS	1,589,549