NOvA Project Status

September 4, 2007

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New funding profile from DOE on August 24

- Reduced FY09 funding from $ 70 M t $ 65 M.
  - This was already the year in which the Cost & Schedule shown at the Director's Aug 21 Review had the project over the profile by ~ $ 6 M.
  - So now we are over by $ 11 M in FY09
- Moved FY13 funding back into FY12

- Project's first iteration changes:
  - Moved APD purchase downstream into FY10
  - Zeroed cost of ES&H people on project
    - Will allow "reasonable" management contingency vs. Aug 21 at zero.
      - Details coming
    - ES&H effort still shown, just zero cost
    - OK with PPD since done this way on all previous detector projects, waiting to hear from AD
  - Escalated it all again, results on next slides

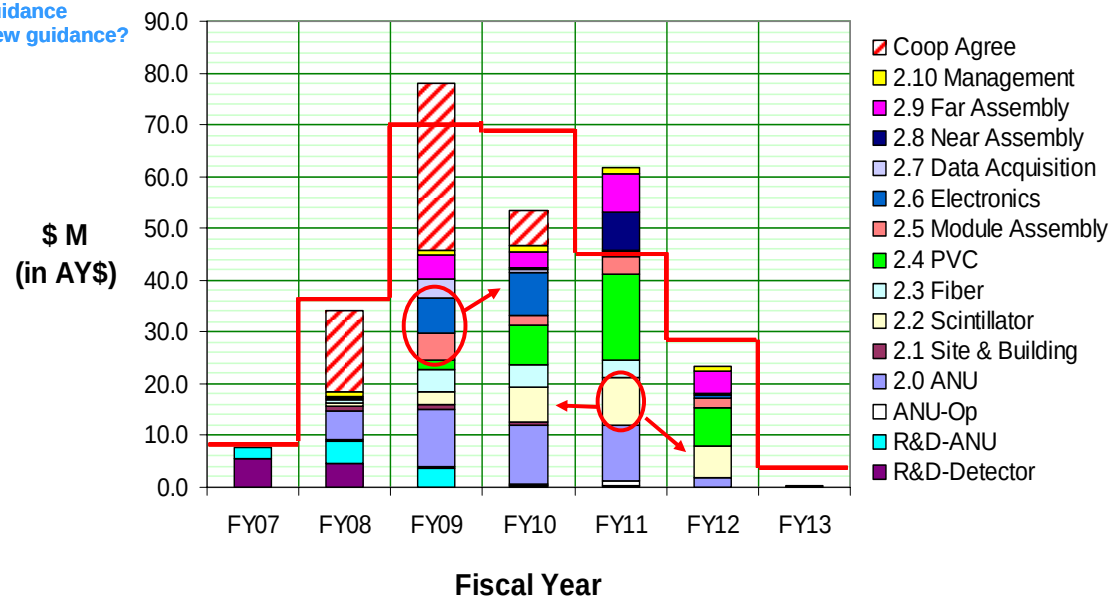
Recall from Aug 21 Review:

	Totals by YR	Funding Profile	Delta	Integrated Delta from profile
FY07	7.8	8.0	0.2	0.2
FY08	34.1	36.0	1.9	2.1
FY09	78.0	70.0	-8.0	-5.9
FY10	53.6	69.0	15.4	9.5
FY11	61.8	45.0	-16.8	-7.2
FY12	23.4	28.2	4.8	-2.4
FY13	0.3	3.8	3.5	1.1
	258.9	260.0	1.1	

Needs to Stay positive

Arbitrary shift of shortfall from original FY07 10.3 M guidance into FY13, could get new guidance?

Initial thoughts on changes in red circles:



Aug 21 Schedule with new profile

	R&D-Detec	R&D-ANU	ANU-Op	2.0 ANU	2.1 Site & Bu	2.2 Scintillator	2.3 Fiber	2.4 PVC	2.5 Module	2.6 Electro	2.7 Data A	2.8 Near A	2.9 Far Ass	2.10 Mana	Coop Agree	Totals by YR
FY07	5.58	2.01	0.19	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	7.81
FY08	4.58	4.44	0.18	5.55	0.96	0.51	0.65	0.12	0.09	0.31	0.00	0.00	0.00	1.17	15.52	34.08
FY09	0.11	3.62	0.20	10.98	1.00	2.52	4.15	2.08	5.23	6.61	3.66	0.18	4.40	1.17	32.04	77.95
FY10	0.01	0.35	0.17	11.54	0.51	6.91	4.23	7.47	2.10	8.15	0.77	0.15	3.08	1.21	6.92	53.59
FY11	0.00	0.36	1.00	10.48	0.00	9.28	3.49	16.55	3.36	1.09	0.08	7.53	7.32	1.24	0.00	61.78
FY12	0.00	0.00		1.95	0.00	5.93	0.01	7.36	1.83	0.83	0.08	0.06	4.26	1.11	0.00	23.40
FY13	0.00	0.00		0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.07	0.19	0.00	0.31
																258.93

Adjust on next slide

	Totals by YR	Funding Profile	Delta	Integrated Delta from profile
FY07	7.81	7.97	0.16	0.16
FY08	34.08	36.05	1.97	2.13
FY09	77.95	65.00	-12.95	-10.83
FY10	53.59	73.22	19.63	8.80
FY11	61.78	46.00	-15.78	-6.98
FY12	23.40	31.76	8.36	1.39
FY13	0.31	0.00	-0.31	1.07
	258.93	260.00	1.07	

Aug 29 Schedule with new profile

(in progress !!)

	R&D-Detec	R&D-ANU	ANU-Op	2.0 ANU	2.1 Site & Bu	2.2 Scintillator	2.3 Fiber	2.4 PVC	2.5 Module	2.6 Electro	2.7 Data A	2.8 Near A	2.9 Far Ass	2.10 Mana	Coop Agree	Totals by YR
FY07	5.5	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.63
FY08	4.6	4.6	0.2	6.1	1.0	0.5	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.9	15.5	34.26
FY09	0.1	3.7	0.2	10.6	1.0	2.5	4.1	2.1	5.2	2.8	3.7	0.2	4.4	0.9	32.0	73.62
FY10	0.0	0.2	0.1	11.7	0.5	6.9	4.2	7.5	2.1	10.1	0.8	0.2	3.1	0.9	6.9	55.13
FY11	0.0	0.4	1.0	10.4	0.0	9.3	3.5	16.5	3.4	3.4	0.1	7.5	7.3	0.9	0.0	63.65
FY12	0.0	0.0		2.0	0.0	5.9	0.0	7.4	1.8	0.9	0.1	0.1	4.3	0.9	0.0	23.29
FY13	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.26
																257.84

	Totals by YR	Funding Profile	Delta	Integrated Delta from profile
FY07	7.63	7.97	0.34	0.34
FY08	34.26	36.05	1.79	2.13
FY09	73.62	65.00	-8.62	-6.49
FY10	55.13	73.22	18.09	11.60
FY11	63.65	46.00	-17.65	-6.05
FY12	23.29	31.76	8.47	2.42
FY13	0.26	0.00	-0.26	2.16
	257.84	260.00	2.16	

Progress,
But more iterations needed

- Additional required iterations settle the Lehman date. Must be Oct 23-25.

Proposed Management Contingency

2.5 Management Contingency

Contingency for management is treated differently than labor contingency for several reasons. The management positions for NOνA have all been filled and we do not anticipate creating additional positions above L3. If new positions at L3 or above were required, it would not amount to more than a few. Scientists who work at zero cost to the Project staff most of the management positions on NOνA. Scientists would likely fill any new positions at no additional cost.
The NOνA cost and schedule does identify assistant managers to cover multiple shift work at the module factory and for assembly at Ash River. These positions are included with the assembly work where standard labor contingency rules apply.

Non-scientific managers who are not working full time on NOνA may have to devote a larger fraction of their effort to the Project if unanticipated circumstances arise. In these cases, some contingency is required to cover that additional cost to the project. Contingency is also required to cover the risk that a part-time manager is required to spend a larger fraction of time on a task other than NOνA, a risk that is larger if the NOνA fraction is small. Managers who are eligible for overtime should have a contingency that covers potential overtime. If a manager who is a salaried employee is spending 100% of their time on NOνA, then no contingency is required.

Next slide

Proposed Management Contingency

NOνA has adopted the following contingency rules for management personnel that reflect these issues.

1) 0% for scientific personnel and salaried employees who spend 100% of their effort on NOνA.

2) 10% for management personnel who contribute more than 75% of their effort to NOνA.

3) 15% for mangers who contribute between 50 – 75% of their effort to NOνA.

4) 25% for managers who contribute less than 50% of their effort to NOνA.

Cooperative Agreement Status

- Marvin Marshak (UMinn) has been working to get the university to agree to a "final response" to the CA wording from Chicago Operations
  - Mike Procario says (8/30) that they have inserted a requested change in wording on "who owns the detector"
    - Fermilab "owns" it and has the responsibility to remove the detector, clean up the building following the removal process, including any residual ES&H problems.
  - Late last Thursday Marvin asked us for a cost to demolish the building
    - Knock walls into pit and bulldoze the berms back over the rubble assuming all ES&H issues are settled in advance
    - Steve Dixon estimated ~ $ 3.7 M and Marvin got this on Friday:
      - $30/sq ft for pre-engineered building, $125/sq ft for detector enclosure, $150K for canopies & outbuildings
  - After UMinn "final response", this still goes to DC for the "business review" for a couple of weeks.
    - Goal to complete by September 28

- Fermilab – U of Minn MOU on CA
  - Marvin promises a 3rd draft return of John's 2nd draft any day
  - Pepin has provided a list of additional topics which should be covered in a 4th draft
  - Goal is to get Marvin and John to sign by Oct 1 – 10 and be seeking all other signatures after that & perhaps after Lehman is here.

EA Status

- EAW was submitted with signatures on Aug 31
  - This is an Appendix to the federal EA
  - Minnesota Environmental Quality Board publication date is Sept 10.
  - This starts the 30 day public comment clock.
  - A public meeting has been scheduled for Sept 26 in Orr, Minn.
- EA is still in preparation
  - Sally Arnold is assembling a final single set of comments and suggestions to Chapter 1 – 4
  - Larry Luckett (URS) has finished Ch 5 (impacts) and John agrees it is done and ready for DOE once we have Ch 6 (accident scenarios)
  - Larry Luckett (URS) promised a Ch 6 redraft based on DOE comments from our July 26 meeting with them by August 31.
- Recall we promised to notify nearest neighbors about the EA two weeks before it gets officially submitted
  - Seems to imply a schedule like:
    - Notify neighbors, perhaps Sept 21 ?
    - Submit EA, perhaps Oct 5
    - That starts the federal 30 day clock which would then be in process when Lehman is here.

Need additional help

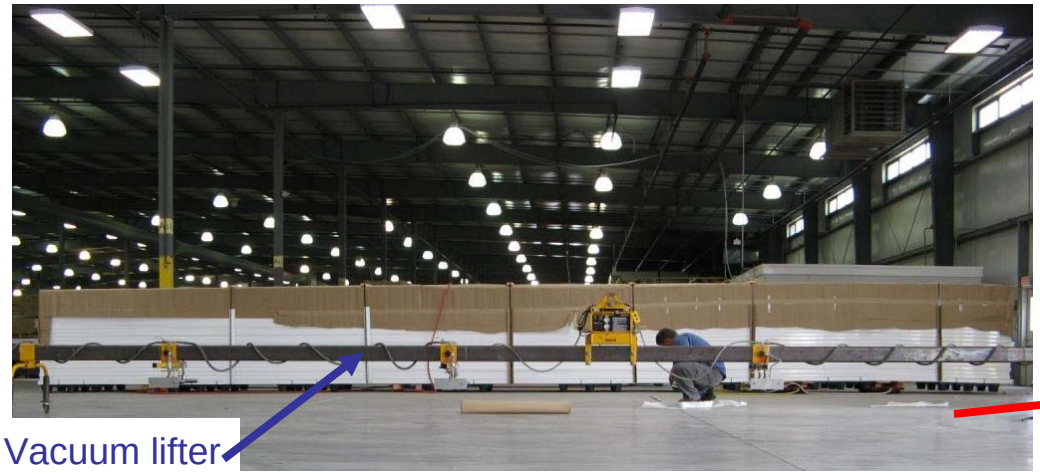
- EIR sensitivity training indicates we would be well served to be more formal on approvals
- Docdb has an approval path
  - But it has flaws and we need these flaws corrected ASAP
  - Requires Eric Vaandering and effort reporting to CD instead of CMS
- Then could fairly easily do L2 and Project Office sign-offs on:
  - Project documented plans, PMP, …
  - Requirements Documents
  - Detector Parameter sheets
  - Design Reviews (could include future ones as version 0?)
  - Value Engineering Studies
  - Monthly Reports
  - BOEs
  - Project Organization Charts and RAMs
  - Change Control forms.
- And it would all be obvious to reviewers

Some actual physical progress

- Took delivery of two 4,500 gallon shipments of mineral oil last Thurs & Friday
- Had signed EENF in place
- Had full containment in place

Some actual physical progress

- Movement of stacked extrusions onto a truck at Extrutech, Aug 22



Lined up with truck

Half way in

All the way