



NOvA Project Status

John Cooper & Ron Ray
Working Group Meeting
January 18, 2006



Interactions with Mike Procaro

- **On the Design-Build question.**
 - Mike talked to Steve Tkaczyk.
 - We can use PED \$ to put out a contract to start a design after passing CD-2
 - (maybe CD-1, Mike wasn't certain and will check)
 - but you can't build anything until CD-3.
 - Then if we get CD-3 during FY07, we can start building.
 - (or OK if we get a CD-3a at CD-2 time)
 - Still a line item, so must be able to shut it down if Congress doesn't approve for FY08.
 - We should be thinking about realistic design times needed for design-build and whether starting a building is possible during FY07.
 - What we can do in any case will depend on what the budget number is for FY07.
 - We should see the first number in the President's budget on Feb 7 or 8.
 - We may have to change our whole philosophy at that point.
- **Provided some CDR text about the site selection to Mike**



R&D, PED, LLP, Construction Table

NOVA Funding Profile

(in FY05 \$)

| Fund Type | Year | | | | | | | Sum |
|---------------------|-------------------|-------------------|-------------------|--------------|--------------|--------------|--------------|----------------------|
| | FY06 | FY07 | FY08 | FY09 | FY11 | FY12 | FY13 | |
| R&D M&S (\$M) | 1.93 ^a | 2.00 ^b | 0.50 ^c | - | - | - | - | 4.43 |
| R&D SWF (\$M) | 2.80 ^a | 2.80 ^b | - | - | - | - | - | 5.60 |
| PED (\$M) | - | 5.00 ^d | 2.50 ^e | - | - | - | - | 7.50 |
| LLP (\$M) | - | 7.00 ^f | - ^g | - | - | - | - | 7.00 |
| Construction (\$M) | - | - | 20.00 | 50.00 | 50.00 | 50.00 | 10.00 | 180.00 |
| Total by FY: | 4.73 | 16.80 | 23.00 | 50.00 | 50.00 | 50.00 | 10.00 | Total: 204.53 |

Notes:

a R&D funds in FY06 used for _____
 need to get estimates of SWF -- SWF estimates for FY06,7 based on FTE estimate done for EPP2010 in 9/2005

b R&D funds in FY07 used for _____

c R&D funds in FY08 used to complete Integration Prototype Near Detector

d PED funds in FY07 are used for final building design and value management studies
 Final Site Access Road design effort estimate at \$ 0.80 M
 Final Building design effort estimated at \$ 2.43 M
 Final Outfitting, Site Logistics, & Management design effort estimated at \$ 0.82 M
 above 3 total to \$ 4.05 M
 Value Management Studies estimated at \$ M from list below
 Study #1:

e PED funds in FY08 are used for

f LLP funds in FY07 are used for access road construction & site clearing starting ~ April, 2007
 This builds a 3.6 mile access road from the Ash River Trail to the NOVA site.
 These funds would be in the form of a grant/cooperative agreement to the University of Minnesota
 12/21 estimate is \$ 5.13 M without indirects

g no LLP possible in FY08



Request for Quote Status

Status of NOVA RFPs

1/17/2006

| Subject | vendor discussions | draft RFP | req in system | final approved RFP | RFPs sent | # sent to | Date for Response | # Responses | Evaluation Board |
|---|---|-----------|---------------|------------------------------|------------------|-----------|--------------------------------|---------------------------|---|
| Extrusions (we provide resin) | PET, Sept 15 Extrutech, June Itasca, Sept 6 | 12-Aug | ~ Aug 1 | vers 1, Aug vers 2, Oct 7 | 26-Aug 10-Oct | 10 11 | 23-Sep 16-Nov | 3 3 | 26-Sep 21-Nov Extrutech chosen |
| mixed scintillator | Bicron, Nov 7 Eljen, Nov 8 | 17-Oct | 21-Oct | 20-Dec | 22-Dec | 2 | 7-Feb | | |
| scintillator fluor mix (must mix with mineral oil, perhaps also with more pseudocumene) | Bicron, Nov 7 Eljen, Nov 8 Curtis Labs, Aug 25 | 20-Oct | 21-Oct | 20-Dec | 22-Dec | 3 | 31-Jan | | |
| mineral oil (Technical grade) | Penreco, Oct 25 | 6-Oct | 21-Oct | 10-Nov | 11-Nov | 10 | 14-Dec | 2 still testing | |
| mineral oil (Industrial NF) | | 18-Nov | 28-Nov | 28-Nov | on hold | | | | |
| pseudocumene | Dixie Chemical, long ago but... Flint Hills, Nov 10 but ... | 17-Oct | 21-Oct | 12-Dec | 15-Dec | 13 | 20-Jan 31-Jan | 2 ? | |
| waveshifters | Curtis Labs, Aug 25 | 20-Oct | 21-Oct | 18-Nov | 28-Nov | 9 | 29-Dec | 1 | |
| ISO tanks, mixing | EXSIF, Nov 15 Superior Carriers, Dec 20 | | | | | | | | |
| waveshifting fiber | Kuraray, Oct 31 Bicron, Nov 3 Polhitech, no longer exists -- Protvino, no contact | 17-Oct | 21-Oct | 18-Nov | 22-Nov | 2 | 23-Dec 13-Jan | ? | |

Status of RFIs

| | | | | | | | | |
|--|--|--------|-----|--------|--------|---|---------------|---------------------------|
| APDs | Hamamatsu, Aug 9 | 11-Nov | xxx | 17-Nov | 17-Nov | 1 | 16-Dec | 1 "guess" on 11/29 |
| raw PVC, decided 19-Dec to do RFI | Prime, Oct 17 Ashland (Georgia-Gulf), Sept 8, Nov 7 Aurora, Clairiant, Aug 23 | 6-Dec | xxx | 21-Dec | 22-Dec | 5 | 23-Jan | |



Where are we on Cost & Schedule?

Status of NOvA Cost & Schedule

red= changes in last 2 weeks

1/17/2006

means Bill is "done"

| | Initial talks with Bill? | List of Tasks | Durations of Tasks | Relationships among tasks | Assign labor resources | Assign M&S \$ Resources | Add contingency | Provide L3 descriptions | Provide Task Notes |
|--------------------|--------------------------|---------------|--------------------|---------------------------|------------------------|-------------------------|-----------------|-------------------------|--------------------|
| WBS | | | | | | | | | |
| Site and Buildings | X | X | X | X | X | X | | X | x |
| Scintillator | X | x | x | x | | | | X | |
| Fiber | X | X | X | X | X | X | | X | |
| Extrusions | X | X | X | X | x | x | | X | X |
| Extrusion Modules | X | X | X | X | x | x | | X | |
| Electronics | X | x | x | x | | | | X | x |
| DAQ | X | X | X | | | | | X | x |
| Near Assembly | X | X | X | X | X | X | | X | x |
| Far Assembly | X | X | X | X | X | X | | X | x |

Bill's opinion on estimated time to finish: _____

Concentrating on Scintillator, Electronics this week & next

Ron has a 1st pass on Contingency rules, We will converge by next Wed



CDR Status

| Chapter | Author | outline | 1st draft |
|---------|---------|---------|-----------|
| i | | X | |
| ii | | X | |
| iii | | X | |
| iv | | X | x |
| 1 | John | X | |
| 2 | Gary | X | 15 pg |
| 3 | John | X | 30 pg |
| 4 | John | X | 15 pg |
| 5 | John | X | 16 pg |
| 6 | Ron | X | 9 pg |
| 7 | John | X | X |
| 8 | John | X | |
| 9 | Ron | X | X |
| 10 | Ron | X | X |
| 11 | | X | |
| 12 | Ron | X | X |
| 13 | Ron | X | X |
| 14 | Ron | X | X |
| 15 | Ron | X | X |
| 15 | Ron | X | x |
| 17 | | X | |
| 18 | | x | |
| 19 | Ron | x | |
| 20 | | | x |
| 21 | | | |
| 22 | John | X | X |
| A1 | Ron +L2 | X | x |
| A2 | | | X |

- Hope to circulate 1st draft by Monday
 - Have 125 / ~ 200 pages
 - Have scientific performance requirements & NOvA design performance against those requirements



Other Items

- No Change from Dec 21:
 - Requirements Documents
 - Basis of Estimate
 - Preliminary Hazard Analysis
- **Structure Problem**
 - **Engineering Review of conceptual design on Jan 10**
 - Rich Stanek (chair), Tom Nicol, Russ Rucinski, Charlie Cooper, Pat Hurh
 - Got the report yesterday, “no fatal flaws, but lots of hard work ahead”