

| MAGNETICS | | | | | | | | | | | | | | FY02 rates | | |
|--|-----|------|------|------|------|------|------|------|------|------|--------|-------|----------|------------|------------|--|
| WBS 31 | RRM | EEEM | ECEM | EMEM | ERSM | EESM | ECTB | EETB | D*DM | EMSM | TRAVEL | STKRM | M&S | Unloaded | Loaded | |
| In-ves sensors (no day-1 in-vessel se | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 | \$0 | #REF! | \$0 | 0.00 | |
| Magnetics - Ex ves saddle loops (200 | 108 | 391 | 0 | 0 | 0 | 725 | 0 | 0 | 0 | 0 | \$0 | \$0 | \$19,100 | \$96,627 | 152,744.69 | |
| Final design (Title II) | | | | | | | | | | | | | | | | |
| design ex vessel saddle loop layout | 40 | 40 | | | | | | | | | | | | \$6,624 | 11,011.41 | |
| design lead routing | 20 | 40 | | | | | | | | | | | | \$4,824 | 8,019.36 | |
| design ex vessel saddle clamps | 8 | 16 | | | | | | | | | | | | \$1,930 | 3,207.74 | |
| design terminal blocks, mounts & covers | 20 | 40 | | | | | | | | | | | | \$4,824 | 8,019.36 | |
| prepare design review package | 20 | 40 | | | | | | | | | | | | \$4,824 | 8,019.36 | |
| | | | | | | | | | | | | | | \$0 | 0.00 | |
| Lab Fab/Assembly/Installation (Title III) | | | | | | | | | | | | | | \$0 | 0.00 | |
| procure MI cable (210x12x\$7.38) | | 40 | | | | | | | | | | | \$18,600 | \$21,624 | 28,277.31 | |
| fab clamps | | 20 | | | | 80 | | | | | | | | \$5,732 | 9,528.35 | |
| procure bulkhead connectors for termination boxes | | | | | | | | | | | | | \$500 | \$500 | 625.00 | |
| fab terminal blocks, mounts, covers (6 sets) | | 20 | | | | 80 | | | | | | | | \$5,732 | 9,528.35 | |
| fab marking templates (4) | | | | | | 80 | | | | | | | | \$4,220 | 7,014.70 | |
| mark coil paths on vessel (all 3 segments) | | 40 | | | | 80 | | | | | | | | \$7,244 | 12,042.00 | |
| install saddle loops on outer vessel (all 3 segments) | | 50 | | | | 200 | | | | | | | | \$14,331 | 23,820.87 | |
| install terminal boxes | | 25 | | | | 25 | | | | | | | | \$3,209 | 5,334.16 | |
| terminate MI cable in boxes | | 20 | | | | 100 | | | | | | | | \$6,787 | 11,282.02 | |
| test sensor resistences | | | | | | 20 | | | | | | | | \$1,055 | 1,753.67 | |
| diagnose resistance checks during heating tube install | | | | | | 40 | | | | | | | | \$2,110 | 3,507.35 | |
| check after MC installation over vessel segments | | | | | | 20 | | | | | | | | \$1,055 | 1,753.67 | |
| | | | | | | | | | | | | | | | | |
| | RRM | EEEM | ECEM | EMEM | ERSM | EESM | ECTB | EETB | D*DM | EMSM | TRAVEL | STKRM | M&S | Unloaded | Loaded | |
| Other Ex-Vessel Sensors | 20 | 652 | 0 | 0 | 0 | 0 | 0 | 0 | 560 | 472 | 0 | 0 | 11570 | \$113,542 | \$185,834 | |
| 2 cowound loops for each MC, TF, PF, OH, and TC coils + 2 external rogowskis + 2 diamagn. | | | | | | | | | | | | | | | | |
| Final design (Title II) | | | | | | | | | | | | | | | | |
| co-wound loop layout, integrate into clamp design | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design MC co-wound loop lead routing | | 40 | | | | | | | 40 | | | | | \$4,946 | 8,367.32 | |
| design MC co-wound termination assembly | | 40 | | | | | | | 40 | | | | | \$4,946 | 8,367.32 | |
| design TF co-wound loop layout | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design TF co-wound loop lead routing | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design TF co-wound termination assembly | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design PF co-wound loop layout | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design PF co-wound loop lead routing | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design PF co-wound termination assembly | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design OH co-wound loop layout | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design OH co-wound loop lead routing | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design OH co-wound termination assembly | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design ext. TC co-wound loop layout | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design ext. TC co-wound loop lead routing | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design ext. TC co-wound termination assembly | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design shell saddle loop layout | | 80 | | | | | | | 80 | | | | | \$9,891 | 16,734.63 | |
| design loop clamps | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design shell saddle loop lead routing | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design shell saddle termination assembly | | 20 | | | | | | | 20 | | | | | \$2,473 | 4,183.66 | |
| design external rogowski coil | | 40 | | | | | | | 40 | | | | | \$4,946 | 8,367.32 | |
| design ext. rogowski clamps | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design ext. rogowski termination | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design external diamagnetic loop | | 40 | | | | | | | 40 | | | | | \$4,946 | 8,367.32 | |
| design diamagnetic loop clamps | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design diamagnetic loop termination | | 10 | | | | | | | 10 | | | | | \$1,236 | 2,091.83 | |
| design review package for presentation | 20 | 40 | | | | | | | 20 | | 1 | | | \$5,785 | 9,689.36 | |

