## LimerickNPEm Resource

**From:** Christopher.Wilson2@exeloncorp.com
**Sent:** Thursday, January 12, 2012 10:54 AM
**To:** Kuntz, Robert
**Subject:** RWCU Pump bolting
**Attachments:** Pages from UFSAR Chapters 1-4.pdf

Rob,
As a follow-up to Bill Holston from our phone call

Table 3.9-6 (p) of the UFSAR clearly shows the bolting as low strength (less than 150 KSI)

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**From:** Christopher.Wilson2@exeloncorp.com

**Created By:** Christopher.Wilson2@exeloncorp.com

**Recipients:**
"Kuntz, Robert" <Robert.Kuntz@nrc.gov>
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Table 3.9-6(p)

RWCU PUMP

Following is a summary of the design calculations on the RWCU pump (B, C only):

| Pump Part[1] | CALCULATED STRESS (psi) | ALLOWABLE STRESS (psi) |
|---|---|---|
| Casing wall | 10,820 | 12,814 |
| Cover bolting | 20,000 | 25,000 |
| Pedestal bolt (shear) | 18,015 | 44,000 |
| Motor Part[2] | | |
| Motor foot bolts (shear) | 174 | 60,000 |
| Pump pedestal bolt (shear) | 194 | 60,000 |
| Foundation bolting | 230 | 60,000 |

Following is a summary of the design calculations on the "A" RWCU pumps:

| Part(1) | Calc. Stress (psi) | Allowable Stress (psi) |
|---|---|---|
| Pump Suction Nozzle | 12,774 (U1)<br>1,582 (U2) | 15,000 |
| Pump Discharge Nozzle | 12,824 (U1)<br>1,546 (U2) | 17,500 |
| Motor Case Outlet Nozzle | 5,995 (U1)<br>5,995 (U2) | 17,500 |
| Motor Case Inlet Nozzle | 5,997 (U1)<br>5,997 (U2) | 17,500 |
| Pump Support Flange | 3,437 (U1) | 25,833 (U1) |
| Bolts (shear) | 3,325 (U2) | 11,800 (U2) |
| Pump Case/Motor Case Studs | 23,229 (U1)<br>23,229 (U2) | 25,000 |

(1) ASME Code calculations.
(2) Non-ASME Code calculations.