



Engineering Experiment Station

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May 5, 1993

Document Control Desk
US Nuclear Regulatory Commission
Washington D.C. 20555

Subject: Request for Technical Specification Change at The Ohio State
University Research Reactor (OSURR), License R-75, Docket
No. 50-150.

On March 24, 1993 the NRC granted a waiver of Technical Specification (T.S.) 3.2.3.13 for a period of 15 days to allow measurement of rod drop times with magnet currents up to 100 ma. The purpose was to determine if while operating with magnet currents at 100 ma the rods would be inserted in less than 600 milliseconds as required by Technical Specification 3.2.1. The staff of the OSURR completed this testing on March 25, 1993; April 1, 1993; and April 2, 1993. The results are attached. It is the conclusion of the OSURR staff that T.S. 3.2.1 will be met with magnet currents as high as 100 ma and therefore T.S. 3.2.3.13 should be amended to read as follows:

Rod drop will occur for any control rod which has excess magnet current ≥ 100 ma.

The results of the testing and proposed Technical Specification change were also reviewed and approved by the Reactor Operations Committee at their April 14, 1993 meeting as required by T.S. 6.2.4(3).

If you have questions on this proposed Technical Specification Change please contact Mr. Richard Myser at 614-292-6755.

Sincerely,

José B. Cruz, Jr., Director

cc. with enclosure

Don W. Miller, OSUNRL
Richard D. Myser, OSUNRL
Theodore S. Michaels, USNRC

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RDM/lv

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College of Engineering

A020

Magnet Current

229.33

Min. 40 ma. 50 ma. 60 ma. 70 ma. 80 ma. 90 ma. 100 ma.

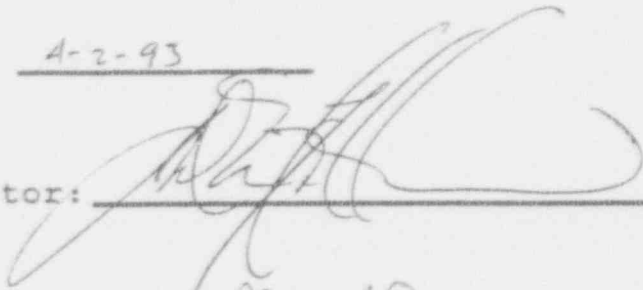
| | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 cm. | 166.1 | 167.9 | 171.3 | 173.8 | 175.7 | 175.8 | 177.8 | 178.6 |
| 10 cm. | 213.8 | 215.2 | 217.3 | 222.0 | 224.0 | 224.7 | 224.5 | 226.4 |
| 20 cm. | 282.4 | 285.9 | 288.1 | 291.0 | 291.5 | 294.2 | 295.2 | 294.2 |
| 30 cm. | 341.3 | 339.7 | 341.6 | 344.2 | 347.4 | 347.9 | 348.8 | 349.8 |
| 40 cm. | 389.8 | 388.9 | 389.6 | 396.0 | 397.2 | 396.8 | 397.9 | 400.1 |
| 50 cm. | 433.5 | 433.6 | 436.6 | 438.8 | 441.4 | 444.5 | 443.6 | 446.4 |
| 60 cm. 60.90 | 478.4 | 480.2 | 482.1 | 485.0 | 487.6 | 489.1 | 490.1 | 490.4 |

Rod Height

Time, milliseconds

Shim Safety Rod #1

Date: 4-2-93

Operator: 

Reviewed by: Richard D. Myse

Magnet Current

0.51 mA

Min. 40 ma. 50 ma. 60 ma. 70 ma. 80 ma. 90 ma. 100 ma.

| | | | | | | | | |
|-----------------|-------|-------|-------|-------|---------------------------|-------|-------|-------|
| 5 cm. | 163.1 | 168.4 | 172.4 | 173.7 | 173.4 172.6 | 175.2 | 174.7 | 175.2 |
| 10 cm. | 214.1 | 222.9 | 221.5 | 227.7 | 224.6 | 225.3 | 229.6 | 227.4 |
| 20 cm. | 289.4 | 289.0 | 298.9 | 292.7 | 300.5 | 302.9 | 294.7 | 295.6 |
| 30 cm. | 345.9 | 351.2 | 352.9 | 348.7 | 355.1 | 350.8 | 351.3 | 352.8 |
| 40 cm. | 388.5 | 397.1 | 395.1 | 399.9 | 403.1 | 398.1 | 399.1 | 401.0 |
| 50 cm. | 435.5 | 435.6 | 440.2 | 442.7 | 444.2 | 444.3 | 445.6 | 445.7 |
| 60 cm. 61.18 | 484.9 | 484.4 | 489.5 | 490.3 | 491.2 | 491.0 | 491.6 | 493.0 |

Rod Height

Time, milliseconds

Shim Safety Rod #2

Date: 4-1-93

Operator: 

Reviewed by: Richard D. Myser

Magnet Current

229 mA.

Min. 40 ma. 50 ma. 60 ma. 70 ma. 80 ma. 90 ma. 100 ma.

| | | | | | | | | |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 5 cm. | 166.5 | 174.2 | 179.5 | 176.8 | 175.4 | 180.1 | 181.2 | 184.3 |
| 10 cm. | 220.3 | 228.2 | 229.0 | 225.5 | 232.6 | 233.5 | 234.7 | 235.1 |
| 20 cm. | 288.3 | 294.5 | 299.4 | 295.0 | 298.0 | 301.2 | 300.8 | 300.2 |
| 30 cm. | 345.2 | 352.4 | 353.4 | 349.5 | 352.9 | 351.3 | 356.3 | 355.3 |
| 40 cm. | 393.7 | 401.4 | 401.1 | 398.6 | 400.2 | 403.5 | 405.0 | 405.7 |
| 50 cm. | 442.6 | 447.4 | 445.8 | 446.1 | 450.3 | 452.1 | 452.1 | 453.1 |
| 60 cm. 61.16 | 486.2 | 493.9 | 494.5 | 489.4 | 494.2 | 499.0 | 499.4 | 500.1 |

Rod Height

Time, milliseconds

Shim Safety Rod #3

Date: 25 MAR 93

Operator: 

Reviewed by: 