



FPL Energy
Seabrook Station

FPL Energy Seabrook Station
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April 12, 2006

Docket No. 50-443

SBK-L-06071

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Reference 1: North Atlantic Energy Service Corporation Letter, NYN-98085, "Seabrook Station, Response to Information Request Regarding Reactor Vessel Integrity (TAC NO. MA 0571)," T.C. Feigenbaum to NRC, June 24, 1998.

Seabrook Station
Reactor Vessel Weld Wire Material Data Update

WCAP-16526-NP, "Analysis of Capsule V from the FPL Energy Seabrook Unit 1 Reactor Vessel Radiation Surveillance Program," received by FPL Energy Seabrook LLC, in March 2006, contains clarifications regarding weld wire chemistry previously submitted in Reference 1. North Atlantic Energy Service Corporation, the previous licensee for Seabrook Station, had previously reported, in Reference 1, best estimate copper and nickel values for weld heat 4P6052 that did not have this most recent chemistry information. The revised copper and nickel values are from the Combustion Engineering Owners Group efforts on best estimate chemistry and are based on review of 74 chemistry records for this heat. The revised best estimate copper and nickel values for weld heat 4P6052 are 0.047 copper (Wt %) and 0.049 nickel (Wt %). In addition, the weld heat 4P6052 Upper Shelf Energy (USE) was reported in the initial testing for WCAP-10110¹ as 156 ft-lbs², however four specimens had values at 100% shear and the average

¹ WCAP-10110 "Public Service of New Hampshire, Seabrook Station Unit No. 1 Reactor Vessel Radiation Surveillance Program," Westinghouse Electric Corp., March 1983.

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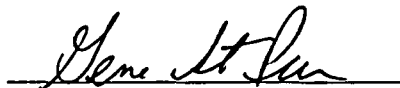
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was 160 ft-lbs. Therefore, the USE value reported in WCAP-16526² for the beltline weld is 160 ft-lbs as required by ASTM E-185-82³, which is different than the 156 ft-lbs. previously reported in Seabrook Stations Generic Letter 92-01 response. The unirradiated USE values for weld heat 4P6052 from Reference 2 are attached.

FPL Energy Seabrook, LLC requests that the NRC revise the RVID2 database for the 4P6052 surveillance weld metal initial USE value and best estimate copper and nickel values. These revised values do not affect the results of our current analysis as submitted in FPL Energy Seabrook letter SBK-L-06070, "Reactor Vessel Surveillance Capsule Report," dated April 10, 2006.

Should you have any questions regarding this letter, please contact Mr. James M. Peschel, Regulatory Programs Manager at (603) 773-7194.

Very truly yours,
FPL Energy Seabrook, LLC


Gene St. Pierre
Site Vice President

Enclosure

cc: S. J. Collins, NRC Region I Administrator
G. E. Miller, NRC Project Manager
G. T. Dentel, NRC Resident Inspector
M.A. Mitchell, NRC - NRR/ADES/DCI/CVI

² WCAP-16526-NP, "Analysis of Capsule V from the FPL Seabrook Unit 1 Reactor Vessel Radiation Surveillance Program," Rev. 0, Westinghouse Electric Co. LLC, March 2006.

³ ASTM E 185-82, "Standard Practice for Conducting Surveillance Tests for Light-Water Cooled Nuclear Power Reactor Vessels," American Society for Testing and Materials.

UNIRRADIATED WELD

CVGRAPH 5.0.2 Hyperbolic Tangent Curve Printed on 12/12/2005 02:38 PM

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Coefficients of Curve 1

A = 81.1 B = 78.9 C = 69.9 T0 = -20.77 D = 0.00E+00

Equation is $A + B * [\text{Tanh}((T-T_0)/(C+DT))]$

Upper Shelf Energy=160.0(Fixed)

Lower Shelf Energy=2.2(Fixed)

Temp@30 ft-lbs=-74.6 Deg F

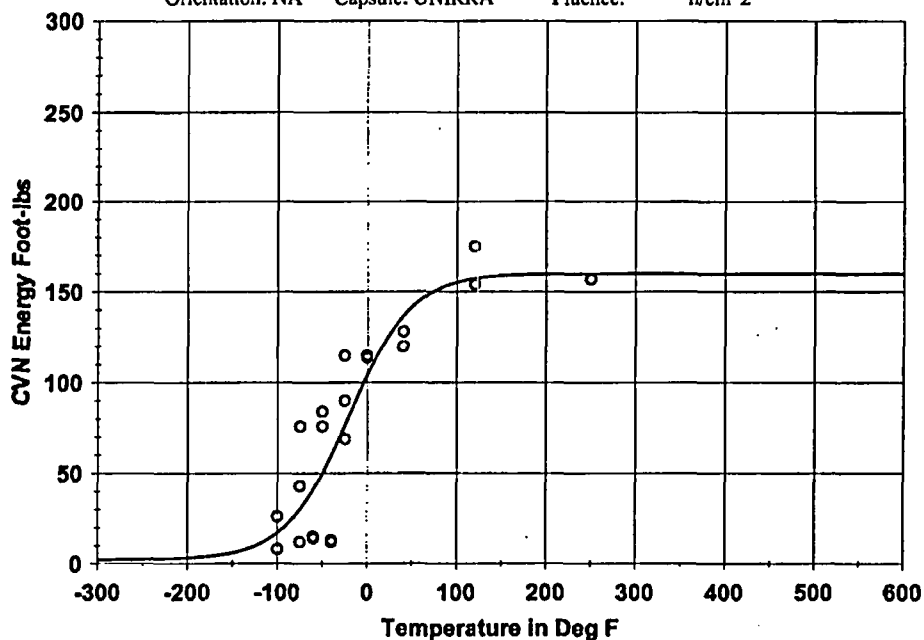
Temp@50 ft-lbs=-49.9 Deg F

Plant: Seabrook 1 Material: SAW Heat: 4P6052

Orientation: NA

Capsule: UNIRRA

Fluence: n/cm^2



Charpy V-Notch Data

| Temperature | Input CVN | Computed CVN | Differential |
|-------------|-----------|--------------|--------------|
| -100.00 | 8.00 | 17.02 | -9.02 |
| -100.00 | 26.00 | 17.02 | 8.98 |
| -75.00 | 12.00 | 29.79 | -17.79 |
| -75.00 | 43.00 | 29.79 | 13.21 |
| -75.00 | 76.00 | 29.79 | 46.21 |
| -60.00 | 14.00 | 40.95 | -26.95 |
| -60.00 | 15.00 | 40.95 | -25.95 |
| -50.00 | 76.00 | 49.91 | 26.09 |
| -50.00 | 84.00 | 49.91 | 34.09 |

UNIRRADIATED WELD

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Plant: Seabrook 1 Material: SAW Heat: 4P6052
Orientation: NA Capsule: UNIRRA Fluence: n/cm²

Charpy V-Notch Data

| Temperature | Input CVN | Computed CVN | Differential |
|-------------|-----------|--------------|--------------|
| -40.00 | 12.00 | 59.93 | -47.93 |
| -40.00 | 13.00 | 59.93 | -46.93 |
| -25.00 | 69.00 | 76.33 | -7.33 |
| -25.00 | 90.00 | 76.33 | 13.67 |
| -25.00 | 115.00 | 76.33 | 38.67 |
| .00 | 114.00 | 103.88 | 10.12 |
| .00 | 115.00 | 103.88 | 11.12 |
| 40.00 | 120.00 | 136.42 | -16.42 |
| 40.00 | 128.00 | 136.42 | -8.42 |
| 120.00 | 154.00 | 157.24 | -3.24 |
| 120.00 | 154.00 | 157.24 | -3.24 |
| 120.00 | 175.00 | 157.24 | 17.76 |
| 250.00 | 157.00 | 159.93 | -2.93 |

Correlation Coefficient = .894