

Cutler Anderson Architects 135 Parrott Way SW Bainbridge Island, WA. 98110

(206) 842-4710

January 8, 2002

Mike Nuernberger
General Services Administration, Region
400 15th St. SW
Auburn, WA 98001

Post-It* Fax Note	7671	Date	1-14-02	# of pages	2
To	Mike Nuernberger	From	M. Cutler		
Co./Dept		Co.			
Phone #		Phone #			
Fax #		Fax #			

RE: Oroville / Osoyoos Port of Entry
Construction Phase
Condensation Testing of Roof Assembly

Mike,

Attached is the final report for the roof assembly condensation testing as prepared by Intertek Testing Services. The test report indicates that the proposed system will prevent condensation except in the most severe of conditions. Some minor condensation may occur directly adjacent to the exterior walls under at these times.

The most informative pages of the report are page 3 of 3 in the summary; and, Appendix A graphs "T.C. 4 vs 9" at both -15°C and -25°C . On the graphs you will note that the temperature is markedly warmer on the coated member 1" to the interior of the test assembly. It should also be noted that the test was performed at a relatively high humidity level (45%). We would certainly not expect humidity levels to be maintained at levels anywhere near that high.

The graph "T.C. 4 vs 9 @ -15°C " reflects our extreme design condition. There seems to be an anomaly at the beginning of the test, where the temperature of the coated member dips at the beginning of the test. This dip does not occur at the more extreme "T.C. 4 vs 9 @ -25°C " graph. Ignoring the initial dip, the temperature of the metal ranges from 14°C to 16°C . This temperature is well above the dew point temperature predicted on page 3 of the summary. The low temperature of the dip mentioned above never drops below 10°C . Dew point temperatures are never predicted to be that high on page 3.

We believe that this material should be applied at full thickness on the exterior roof system for a distance of 1200mm from the face of exterior walls. Since this material is applied in significant thickness, it should then be gradually reduced in thickness over the next 1200mm to eliminate any visible lines. At this time we anticipate modifying paint system EFS-1 (see 09900; 3.13;B) in these areas to be:

- ◆ Primer as currently specified.
- ◆ Pro-Tec "Therm cote / IC"
- ◆ Tnemec Eduralume (as currently specified)
- ◆ Tnemec Endura-Clear (as currently specified)

We are in the process of verifying compatibility of the Tnemec products with the Thermocote / IC. A primed piece of metal has been delivered to Pro-Tek for immediate application of the Thermocote / IC. It will then be returned to the Tnemec vendor for application of the remaining 2-coats of their product and subsequent review. We will do everything in our power to expedite this process.

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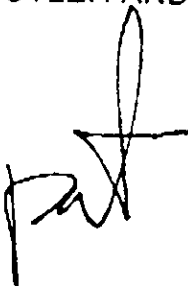
Some other comments worth noting:

- ◆ The product used in both the initial testing and this testing was the same, as originally sent to Intertek by the manufacturer. Due to the number of coats that Intertek indicated was required to apply the material there was some concern that the material may have been defective. The remaining material was returned to the vendor for verification. The vendor indicated that the product was correct and not defective. Apparently Intertek simply "hard-brushed" the product, thus applying many more coats than the product required.
- ◆ I have verified with the manufacturer that the number of coats used will in no way affect the performance of the material since the correct thickness was achieved.

Assuming that the Tnemec and Pro-Tek coating products are compatible, we please review and provide direction for our action.

If you have any question, please call.

Sincerely,
CUTLER ANDERSON ARCHITECTS

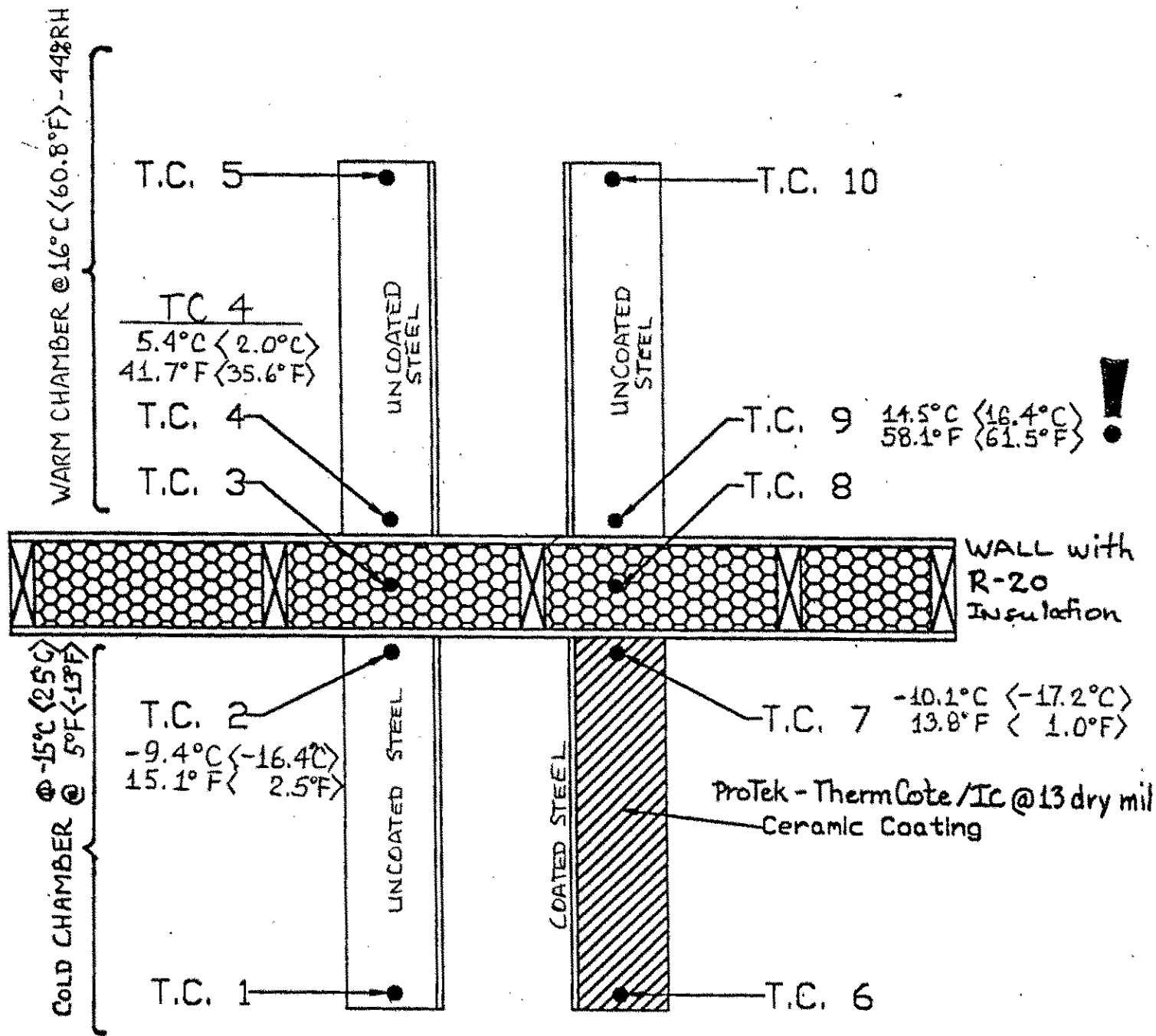
A handwritten signature in black ink, appearing to read 'pat' with a stylized vertical stroke extending upwards from the 't'.

Pat Munter

Attachment: Intertek Testing Services report titled "Temperature Conduction Comparison Test," dated December 18, 2001.

cc DENANDA, HBM

APPENDIX B



○ Thermocouple Locations