HPC COVANTA ENERGY

I simply took an average of the columns concerning Cell 2-5.
For Cell 2-5, the averages on uncoated and coated are as follows:

Uncoated or un-insulated:	**Coated or insulated:**	**Difference**
Upper Metal Temperature 231F	Coated Metal temperature 100F	Drop in temperature 131F
Lower Metal Temperature 84F	Coated Metal Temperature 45F	Drop in temperature 39F

Average reduction in temperature before coating and after coating:

Upper Metal area: 56% reduction
Lower Metal area: 46% reduction

Using 200-225 dry mils.

J.E.

When comparing the HPC coated surfaces against the standard wrap insulation materials, the effectiveness of using HPC is apparent when the surface temperature is above 150F. In the chart, the surface temperature under the HPC is 100F and the average temperature under the standard wrap is 90F. 10 degree F represents a huge savings in energy when comparing BTU savings.

The observation is revealed that as the temperature rises on the surface, the HPC coating can hold the surface temperature against the surface more efficiently than does standard insulation materials. As the temperature on the surface rises, the ceramic formula will hold the heat more aggressively while making the degree gap greater between the HPC and standard insulation. As the heat increases under the standard insulation, the “air” pockets which are open passage ways for heat to be absorbed and thus faster conduction of heat loss through the material. The HPC ceramic formula will continue to block and reduce the heat flow at a more efficient rate because it is not using air pockets, but instead is using materials resistant to heat absorption that helps to block out the load and conduction.

			Hopper Spray on Insulation Test Cell 2-5				Cell 2-6 conventional	
Date	SDA Outlet Temp	Ambient temperature	Upper Metal Temperature	Lower Metal Temperature	Upper Insulation Temp	Lower Insulation Temp	Upper metal temp	Lower Metal temp
12/25/15	277	49	240	100	132	54	95	63
	276	49	244	105	106	53	86	67
12/26/15	272	32	248	108	120	56	87	71
	270	42	247	109	113	46	84	78
12/27/15								
	272	36	226	93	92	46	84	78
12/28/15	270	28	249	104	115	32	83	53
	270	29	243	104	102	43	92	71
12/29/15	270	34	237	97	109	32	78	56
	270	39	212	68	97	51	77	69
12/30/15	271	38	239	110	101	56	116	64
	271	39	230	91	103	54	95	97
12/31/15	271	31	232	101	94	44	99	58
	269	34	199	53	94	43	102	54
1/1/16	272	32	237	102	90	42	98	49
	272	30	113	34	96	42	84	55
1/2/16	269	30	239	105	88	45	97	58
	269	33	234	110	89	45	81	61
1/3/16	268	36	244	119	92	45	86	64
	273	18	230	90	76	26	70	51
1/4/16								
1/5/16								
1/6/16								
1/7/16								
1/8/16								