PLAINTIFF'S EXHIBIT USM-214

00144 00344

INTER-OFFICE MEMORANDUM

TRIP REPORT

J. F. O'Rourke

F. M. Stumpf

Date: January 28, 1965

CAFCO HEAT-SHIELD Failure -
Federal Office Building, Baltimore

The HEAT-SHIELD failure on the above job was viewed and discussed on January 25 with Bill Stebbing, Mike Arthur, and their sprayer, Paul, of the Stebbing Company, along with Harry Schneider and the writer.

The sub-basement of the Federal Office Building, which is a poured concrete deck, is being insulated with 1" of HEAT-SHIELD since this room will house equipment, while the topside of the deck will be open auto parking. At the moment, one end of this sub-basement is open to the outside. Each bay is 10' x 24', or 240 sq.ft. On January 12, four such bays were insulated, followed by five more bays on January 13. Spraying was then stopped because of a cold wave and not resumed until January 25, when five additional bays were sprayed. The deck was first wet with water and then treated with CAFCO Emulsion Adhesive, followed by a catch-coat of fiber and then the final 1" coat and tamped. The area was then heated with propane burners for 24 hours, as seen from the data below which gives the hourly temperatures during this period. The asterisk indicates the actual hours spraying was done. All temperatures are from the city of Baltimore except where there is an "A" indicating airport temperature, since the Baltimore temperature measuring equipment was not functioning on the 19th and 20th.

As seen from this data, just prior to spraying on all three days, the ambient temperature was below freezing for a period of about 12 hours, indicating the slab was also below freezing. We are also surmising that adhesive and water applied to the deck, in all probability, froze and that the CAFCO was applied to a frozen film of ice or adhesive. However, the Stebbing people state that they had the propane burners burning before they started to spray, and on the scaffold the air near the concrete surface was quite comfortable and warm. After spraying on the 12th and 13th, the heat was turned off on the afternoon of the 14th, after which the temperature started to steadily drop down to 2°F. before it warmed up.

Sometime between the 14th and the 21st, fiber sprayed on the 12th and 13th started to fall clear from the concrete base. On the inspection date, January 25, most of the original nine bays had fallen. No failures had occurred on the five bays sprayed on the 21st. The fiber came absolutely clean from the concrete base. Based on the falling pattern, it is expected that the last five bays treated on the 21st would also start falling, since the temperature of the base was low at the start and this deck probably froze because temperatures got down to 26°F.

It was decided to clean off all of the nine bays sprayed the 12th and 13th and allow to dry one day, after which Solvent Adhesive would be applied and resprayed. The other five bays will be watched for any tendency to fail.

Respraying was to commence January 27 and S. D. Sumski will be on hand to instruct the Stebbing people in the use of the Solvent Adhesive.

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CAFCO HEAT-SHIELD Failure
Federal Office Building, Baltimore January 28, 1965

Baltimore Maryland Hourly Temperatures

January 11, 1965 and on ..

JANUARY 1965

	Mon. 11	Tues. 12	Wed. 13	Th. 14	Fri. 15	Sat. 16	Sun. 17	Mon. 18	Tues. 19	Wed. 20	Th. 21	Fri. 22	Sat. 23	Sun. 24	Mon. 25
Midnite	-	30	35	40	19	-	-	9	18	22A	27	27	-	-	31
1 a.m.	30	30	34	39	18	21	15	11	17A	23	30	24	44	32	
2 a.m.	30	29	34	37	17	20	14	11	14	23	28	24	43	32	
3 a.m.	30	29	33	36	15	19	13	13	12	24	27	21	41	32	
4 a.m.	30	29	33	34	14	18	12	14	11	23	26	23	39	32	
5 a.m.	29	29	31	32	12	18	12	14	11	24	24	24	39	32	
6 a.m.	29	29	31	29	12	18	11	13	10	25	25	24	38	33	
7 a.m.	28	30	32	27	10	17	9	13	10	25	24	25	38	32	
8 a.m.	28	30	30	26	11	17	8	13	8	26	25	26	38	32	
9 a.m.	31	32	29	24	12	17	7	14	14	28	27	33	40	32	
10 a.m.	33	34*	31*	26	12	18	9	18	18	32	34*	38	40	32	
11 a.m.	34	36*	33*	24	14	19	11	26	20	34	37*	47	38	33	
Noon	37	38*	37*	24	15	19	13	28	22	37	37*	50	38	34	
1 p.m.	37	42*	38*	26	17	19	13	29	23	40	38*	54	38	34	
2 p.m.	39	46*	39*	24	18	20	14	30	24	42	40*	57	38	34	
3 p.m.	40	45*	40*	25#	20	20	14	31	25	43	41*	54	36	34	
4 p.m.	40	45	43	24	21	19	13	30	25	43	41	57	35	34	
5 p.m.	37	43	43	24	21	18	12	27	25	40	38	52	33	34	
6 p.m.	36	42	42	23	22	18	10	25	23	38	35	48	33	35	
7 p.m.	36	41	41	22	22	19	6	23	21	38	33	46	33	34	
8 p.m.	34	39	41	22	22	19	2	25	19	36	29	44	32	34	
9 p.m.	34	39	41	21	22	17	7	24	19	34	32	46	32	34	
10 p.m.	32	37	42	20	21	16	7	22	19	33	28	43	31	34	
11 p.m.	30	36	40	20	-	-	8	20	22Y	31Y	27	-	31	32	

#Heat off
*Spray time

"A"indicates airport temperature between 1 a.m., January 19 and 12 Midnite, January 20, which would be 2 to 3 degrees less than city temperatures.

Bay - 10' x 24' = 240 sq.ft.
Sprayed 12th and 13th - 9 bays - 10 a.m. to 3 p.m.
Noticed failure 22nd a.m. - 7 bays
1st and 3rd bay from corner sprayed 12th failed between 22nd and 25th.
~~Sprayed Heat - 5 bays same time.~~

RHS/ec

cc:
H. Gromm

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