TABLE 3. (Continued)

Specimen No.	Top Width of crack (in.)	Depth of crack (in.)	Maximum length of corrosion (in.)	Severity of corrosion	Location corrosi (sides
		OCIA- 1 Gal/ yd³			
5A	0.009	3.50	1.50	Severe	Both
5B	0.009	3.75	7.50	Light severe	Mostly b
5C	0.070	3.75	2.50	Moderate severe	Both
5D	0.013	4.25	6.00	Severe	Both
5E	0.007	3.75	1.50	Light severe	Both
5F	0.009	3.00	2.00	--	Both
5G	0.007	3.00	None	None	None
5H	0.007	3.25	1.75	Severe	Both

TABLE 4. Air Void System Analysis Data

Evaluation No.	AEA */Dosage (0z./cwt.)	Air Content Fresh	Air Content Hardened	Specific Surface (in. -1)	Spacin Factor
Truck-Mixed					
1	AEA/3.5	8.1	8.23	741	0.004
2	AEA/3.5	11.3	13.70	571	0.00
3	AEA/1.5	9.0	5.95	667	0.00
4	AEA/1.5	7.5	7.12	645	0.00
5**	AEA/2.0	7.9	7.14	678	0.00
6**	AEA/2.0	6.8	6.12	571	0.00
7	AEA/1.5	5.7	5.54	571	0.00
Central-Mixed					
8	AEA/2.25	7.7	8.70	615	0.005
9	AEA/2.25	7.7	6.92	615	0.00
10	AEA/2.25	7.1	7.23	727	0.004
11**	AEA/3.0	6.8	7.89	548	0.00
12**	AEA/3.0	6.8	6.59	615	0.00
13	AEA/2.25	5.3	5.76	625	0.00
14**	AEA/2.5	5.7	5.70	769	0.00
15	AEA/2.0	7.8	8.94	580	0.00

* Air-Entraining Admixture
** Silica fume concrete mixture; 8% silica fume addition by weight of cement.

Note: All concrete mixtures contained 650 lbs./yd³ of cement, The OCIA at .020% by weight of cement, and Superplasticizer high-range water reducing admixture, for workability.

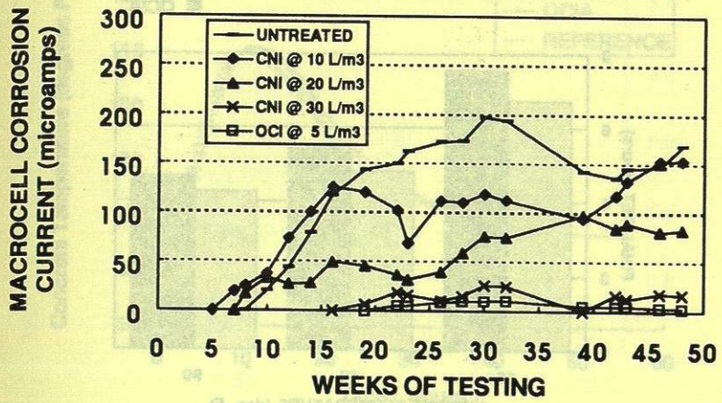

FIGURE 1- Time To Corrosion Test Results

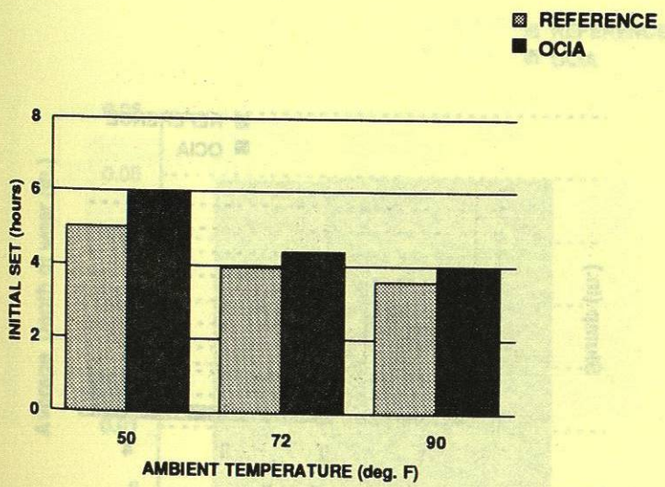

FIGURE 2- Effect Of OCIA On Initial Set Time

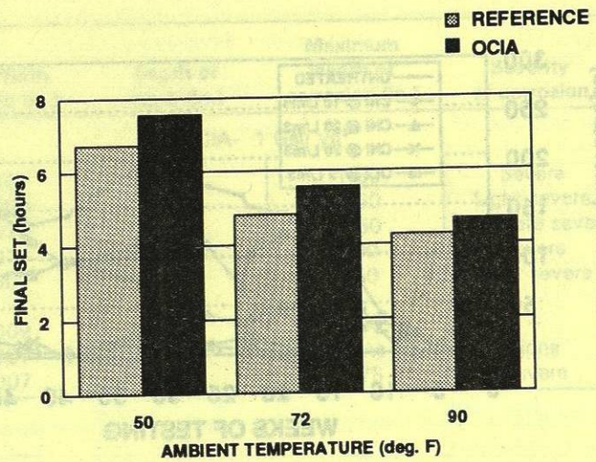

FIGURE 3- Effect Of OCIA On Final Set

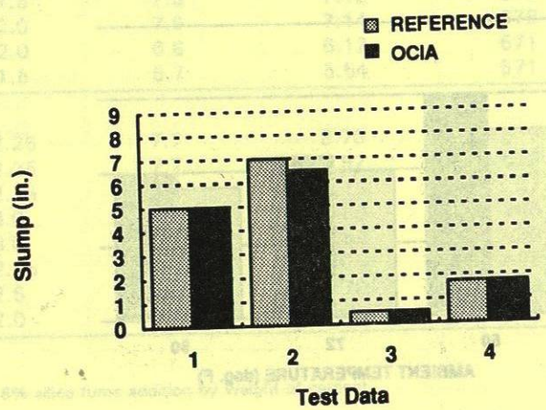

FIGURE 4- Effect Of OCIA On Slump

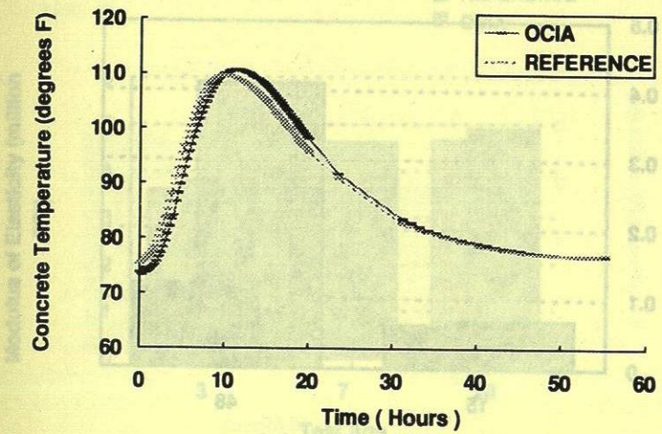

FIGURE 5- Effect of OCIA On The Temperature Of Concrete

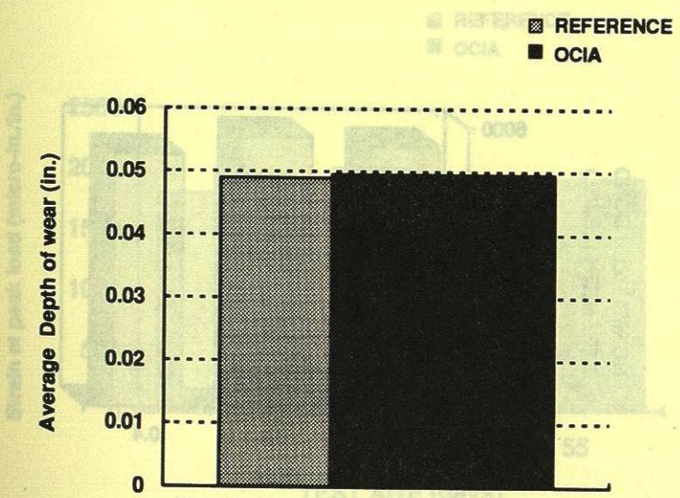

FIGURE 6- OCIA Abrasion Resistance

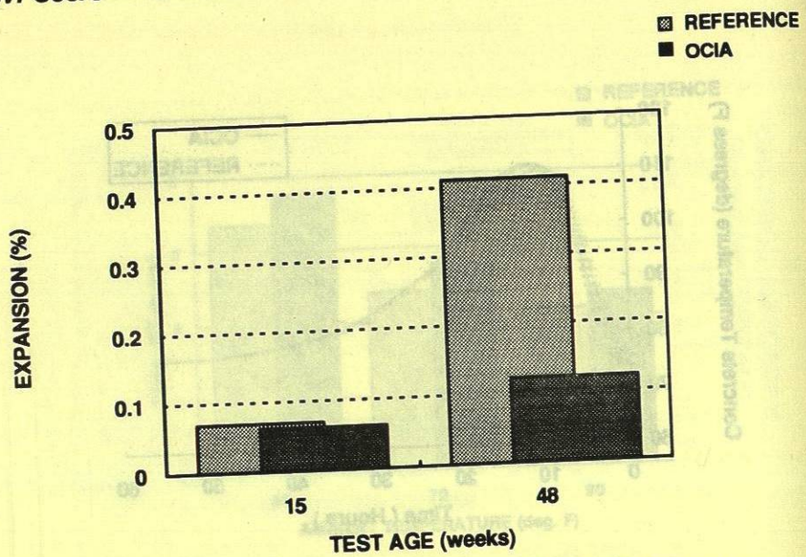

FIGURE 7- OCIA Sulfate Resistance

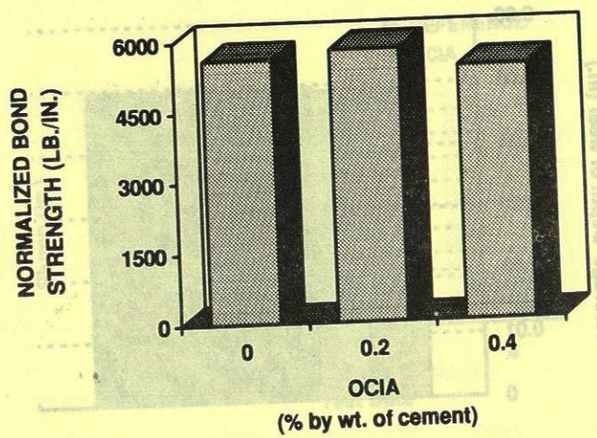

FIGURE 8- OCIA Effect On Concrete/Steel Bond Strength

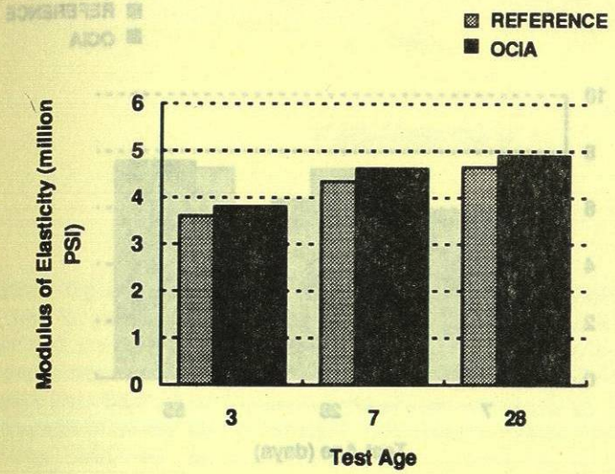

FIGURE 9- OCIA Effect On The Modulus Of Elasticity Of Concrete

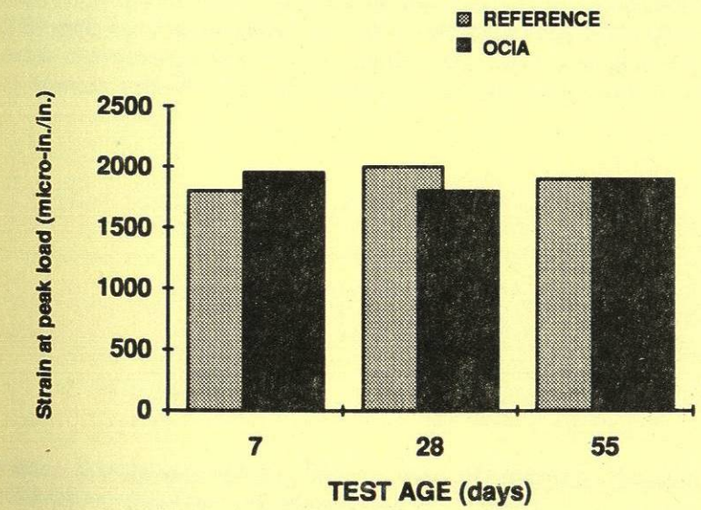

FIGURE 10- OCIA Effect On Strength At Peak Load

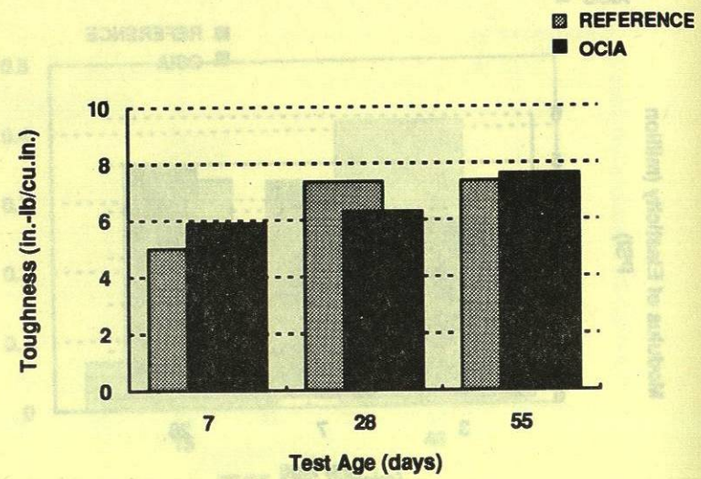

FIGURE 11- Effect of OCIA On Toughness Of Concrete