PCC Structures Verification Responsibilities

Duty	Task	Performed By/ Required Cert.	Minimum Frequency
1. Sample and test aggregate gradations (Fine, Coarse, and Intermediate)	•Obtain independent sample per Materials IM 301. •Test per Materials IM 302 and 306.	Construction Sampling AGG I Testing - AGG II	Sample 1st day & 1/week Test 1st day & 20% of samples S & T 1/deck pour
2. Verify aggregate quality.	•Obtain independent sample and submit to Central Materials (Coarse and Intermediate).	Sampling - District Materials AGG II	Ready Mix/Central Batch 1/1000 cubic yards (1/750 cubic meters)
		Testing - Office of Materials	Mobile Mixer - 1/project
3. Verify cementitious.	•Obtain independent sample and submit to Central Materials (Portland Cement~~, Fly Ash,~~ and Ground Granulated Blast Furnace Slag).	Sampling - District Materials PCC II	1/1000 cubic yards (1/750 cubic meters)
		Testing - Office of Materials	
4. Verify admixtures.	•Obtain independent samples and submit to Central Materials.	Sampling - District Materials PCC II	1/producers lot
		Testing - Office of Materials	
5. Verify air, Plastic	•Sample per Materials IM 327. •Test per Materials IM 318.	Construction PCC I	Ready Mix/Central Batch 1/30 cubic yards (1/25 cubic meters)
			Mobile Mixer - 1/100 square yards
6. Verify slump	•Sample per Materials IM 327. •Test per Materials IM 317.	Construction PCC I	Ready Mix/Central Batch 1/30 cubic yards (1/25 cubic meters)
			Mobile Mixer - 1/project

PCC Structures Verification Responsibilities

Duty	Task	Performed By/ Required Cert.	Minimum Frequency
7. Verify reinforcement.	•Obtain independent samples and submit to Central Materials.	Sampling - District Materials PCC II Testing - Central Materials	Varies - Check IM 204
8. Verify smoothness.	•Randomly select segments and measure smoothness per Materials IM 341. •Report results and compare to contractor's results. •Check tolerance per IM 216.	District Materials PROF	10% of project

PCC Structures Independent Assurance Responsibilities

Duty	Task	Performed By/ Required Cert	Minimum Frequency	
			Ready Mix	Mobile Mixer/Central Batch
1. Sample and test aggregate gradations (Fine, Coarse, and Intermediate)	•Sample and test per Materials IM 204. •Check tolerance per IM 216.	District Materials AGG II	*1/1000 cubic yards (1/750 cubic meters)	Mobile Mixer N/A
				*Central Batch 1/1000 cubic yards (1/750 cubic meters)
2. Entrained Air, Plastic	•Sample and test per Materials IM 204. •Check tolerance per IM 216.	District Materials PCC I	*1/1000 cubic yards (1/750 cubic meters)	*1/1000 cubic yards (1/750 cubic meters)
3. Slump	•Sample and test per Materials IM 204. •Check tolerance per IM 216.	District Materials PCC I	*1/1000 cubic yards (1/750 cubic meters)	*1/1000 cubic yards (1/750 cubic meters)
4. Calibrate smoothness testing equipment	•Per Materials IM 341.	Office of Materials	Yearly	Yearly

* Systems Approach Applicable

Other Required PCC Structures Acceptance Process Responsibilities

Duty	Task	Performed By/ Required Cert.	Miniumum Frequency
1. Inspect stockpiles	•Observe stockpiling procedures. •Check for segregation. •Check for contamination. •Check for degradation. •Check for proper storage and handling of aggregates per Article 2301.13 and Materials IM 527.	Construction AGG II	Startup and weekly thereafter throughout project
2. Concrete Grade Yield	•Compare quantity required to quantity batched and placed.	Construction PCC II	N/A
3. Flexural Strength (beams) Curing and Testing	•Cast and cure per Materials IM 328. •Test per Materials IM 316.	Construction PCC I	Perform test each occurrence
4. Maturity Curve Development and Validation	•Observe maturity curve development per Materials IM 383. •Observe casting and curing of beams. •Observe testing of beams. •Observe maturity meter readings at time of beam breaks.	Construction PCC I	Observe each occurrence
5. Field Maturity Testing	•Observe placement of maturity probes per Materials IM 383. •Observe contractor maturity meter readings	Construction PCC I	Observe readings from continuous monitoring device once per project.
6. Test Equipment	•Inspect test equipment when test results do not correlate.	Construction PCC I & AGG II	When problems arise
7. Audit Checks and Test results in Plant Book	•Check for proper completion of Daily Plant Checklist and Plant Site Inspection List. •Observe record of test results for moistures and specific gravities.	Construction PCC II	Weekly
8. Material certifications	Check certifications for: •Cement •Fly Ash •GGBFS (Slag) •Aggregates •Admixtures	Construction PCC II	Weekly
9. Observe aggregate moisture and specific gravitity testing	•Observe CPI perform test in accordance with Materials IM 307 and IM 308.	Construction PCC II	Once during first week of production

Other Required PCC Structures Acceptance Process Responsibilities

Duty	Task	Performed By/ Required Cert.	Miniumum Frequency
10. Plant proportion control	•Observe delivery tolerance. •Observe scale sensitivity. •Observe admixture dispenser operation. •Check for proper batch proportions on computer generated or hand written batch tickets	Construction PCC II	Once during first week of production
11. Observe mix times and number of revolutions	•Per Article 2001.21.	Construction PCC II	Once per pour
12. Audit Daily Diary	•Review for proper recording of events.	Construction PCC II	Weekly
13. Plant Reports	•Check for proper project and mix identification. •Check for dates and report number. •Review batch weights and aggregate gradations. •Check materials brands and sources. •Check for correct concrete and cement totals (daily, weekly, and to date). •Check for appropriate Plant Inspector signature or initials. •Sign report after review. •Check for hard copy or electronic backup of files	Construction PCC II	Weekly
14. Inspect Transit Mixers	•Inspect for buildup in drum per Article 2001.21 B. •Inspect for fin wear or broken fins per Article 2001.21 B. •Check for current truck certification per Article 2001.21 B.	Construction PCC II	1/Month
15. Inspect plant facility	•Observe plant calibration to assure compliance with Materials IM 527. •Check lab qualifications. •Inspect test equipment.	District Materials PCC II	Central Batch/ Mobile Mixer - Beginning of project Ready Mix - Yearly