PCI Plant Quality Talk
Quality Enhancement Committee

Precast/Prestressed Concrete Institute

SERIES 1, ISSUE 4 – STRESSING OPERATIONS (SINGLE STRAND)

Stressing strand is of great importance to the production of prestressed concrete members. It is important to be accurate in every part of the stressing operation.

It is necessary to record the strand elongation and force for each pull. During stressing, the jack must be level with the strand and chucks must be clean. Chucks can only be used once before cleaning. Never hit a chuck with a steel hammer. If casting indoors and the strand is stored outside, when ambient temperatures drop more than 25°F below the anticipated fresh concrete temperature, the coil packs need to be brought in at least 24 hours before use, or a temperature correction should be made to the calculations if using an abutment bed (no correction is required for self-stressing forms). When using forms with abutment jacking systems (not self-stressing systems), a force and elongation adjustment must be made when the strand and concrete temperatures differ by 25°F or more (PCI MNL116 and 117, 5.3.11-5).

Common Issues

- Data for force not documented for each pull
- Data for elongation not documented for each pull
- Stressing jack not level when pulling
- Defective chucks

Best Practices

All employees should be trained in operation procedures for the following:

- Coil pack usage and storage
- Data recording for all stressing operations
- Chuck cleaning and inspection process
- Proper operation of stress jacks and rams

Note: Please complete this form and return to the Quality Control Manager. All crew members should be observant and report to their foreman anything out of the ordinary on a project. *See something, say something.*

NOTES	ATTENDEE SIGNATURES
_____ DATE _____ PRESENTER	_____ _____ _____ _____ _____ _____