PRE-STRESSING POLICY

This Document outlines the stressing policy and the company procedures for Lynx Precast Ltd.

Tendons, when tensioned contain a considerable amount of stored energy, which in the event of any failure of anchorage or stressing jacks, may be released violently.

The risk of injury can be high if suitable controls are not maintained. To prevent incidents, Management and Personnel are responsible for ensuring the following policy and procedures are maintained.

The document has been written with reference to:

HSE Guidance note GS49 – Prestressed Concrete
Health & Safety at Work Act 1974
BS8110 part 1: 1997
BS5896: 1980
Existing procedures and documentation.

Policy

The fundamental requirements of the policy are:

- The factory must have risk assessments documented for all stressing activities
- The factory must have written production procedures, which reflect their working routines
- Only specially trained and authorised personnel will be allowed to carry out stressing activities. The stressing Operative should hold a valid training certificate.
- The correct Personal Protective Equipment must be identified, available and worn.
- Stressing awareness training is required for all personnel who work or have cause to regularly work within stressing areas, whether actively taking part in stressing activities or other roles which require them to be in the vicinity of stressing operations.
- Stressing forces, extensions, calibration tolerances and load conditions must be documented by a competent engineer.
- Prestressing equipment must be suitable for purpose, regularly maintained and calibrated with appropriate records kept and used in accordance with the manufacturer's instructions.
- Cleaning and inspection of barrels and wedges and jack jaws must be maintained to a high standard with procedures to ensure worn components are replaced
- Procedures for the inbound deliveries of wire and strand including the storage, record keeping, stock rotation and use of wire must be documented and trained out to all relevant personnel
- Procedures for the setting up of Stressing beds must be in place including the running of wires, wire cutting, placing wires into the stressing bed and the guarding of the bed including the use of safety chains or other suitable wire restraint systems.
- Documented procedures for the receipt, storage, cleaning and maintenance of barrels and wedges must be in place and trained out to relevant personnel. This is to include procedures for ensuring stock rotation and identification of types of barrels and wedges to prevent misuse.

- Stressing procedures and safe systems of work must be in place for the stressing operations undertaken and they must be relevant to the type of stressing activities. This must include fitting barrels and wedges to wire, extension checks, and guarding as well as documented procedures in relation to cross wires or other non-routine operations.
- Procedures for the detensioning of beds must be available and these should take into account concrete strength and removing of barrels and wedges from wire or strand.
- Maintenance procedures must be created and trained out for any activities where pre-stressing equipment is to be serviced, maintained etc.
- Information must be available to enable operational Management to ensure all relevant personnel are trained to the necessary standards to enable them to carry out their work activities safely. These procedures must document training frequency, refresher training, competency reviews and certification for operatives.

The risk assessments together with the guidelines given below must be taken into account when writing the safe systems of work and the procedures for the production manuals for each factory.
Should any changes be made to production routines within the factories e.g. new equipment, new working practices etc., then the risk assessment, the safe system of work and the production procedure must be reviewed, operatives re-trained and the appropriate changes made to the documented procedures.

References

BS 8110: Part 1 1997: CL8.7.3 (d)
Manufacturer's Instructions
BS Code of Practice CP 100 Part 1: 1972 (section 4.8.1)
HSE Guidance notes GS49
BS 5896: 1980

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