

WARNING
**STRESSING
IN PROGRESS
DO NOT ENTER
FACTORY**

**Concrete Premises
Prestressing Initiative**

2025 Campaign

hseni
CONTROLLING RISK TOGETHER

2025 Campaign

Between January 2025 and April 2025, HSENI Inspectors from the Explosives, Extractive Industries and Waste Group (EEIWG) carried out focused inspections to evaluate how health and safety is being managed for prestressing operations at concrete premises across Northern Ireland.

During this period HSENI inspected 25 prestressing premises. The inspections aimed to ensure that operators had adequate procedures in place to safely carry out prestressing activities and to review the safety measures implemented at these sites.

Dutyholders were informed about the inspection campaign in January 2025, and they were provided with an electronic copy of the inspection pro-forma used by Inspectors.

This document was also made available on the HSENI website.

The overview of the initiative's results highlights both areas where dutyholders demonstrated good management of prestressing procedures and areas where improvements are needed.



Positive observations

Use the tick boxes beside each point to check that you are working safely:

Procedures in place for reporting damaged wires

Manual handling controls implemented

Appropriate Personal Protective Equipment (PPE) provided

Adequate off-loading, handling and storage of steel coils to ensure failure modes are minimised

Straps on steel coils cut with steel-strapping cutters

Exclusion of other operatives from the work area during stressing operations

Warning signs displayed with visual/audible alarms

Intermediate saddles provided every 5-10 meters

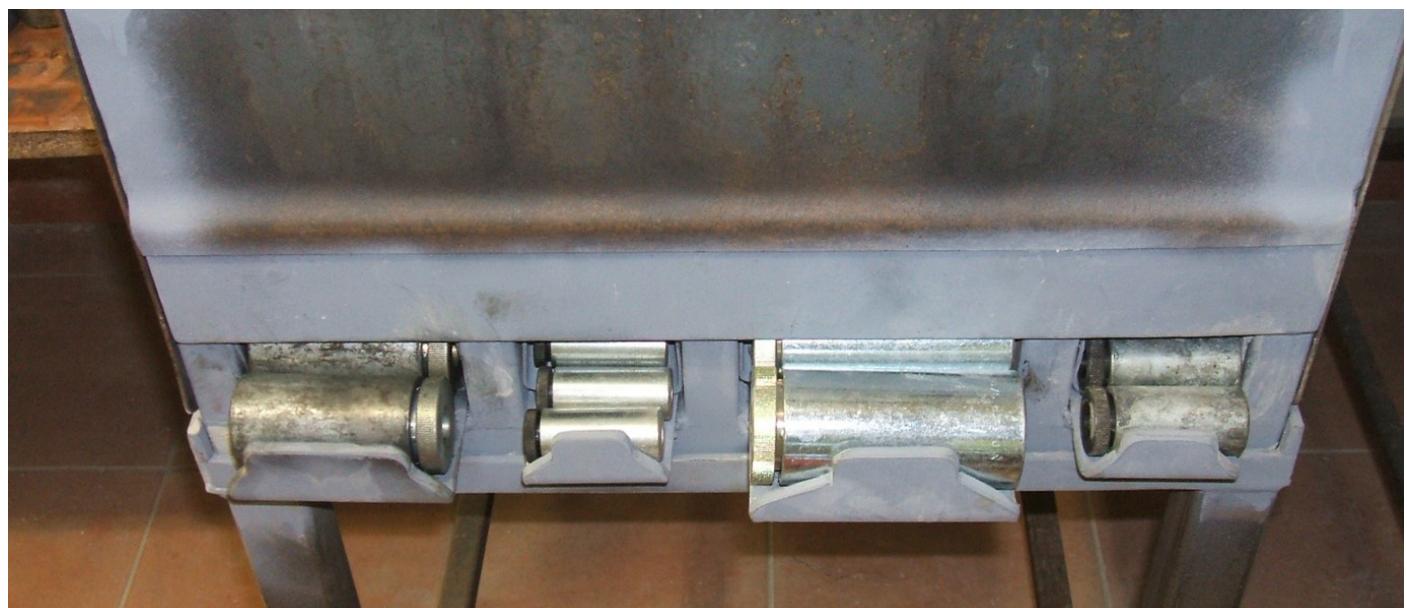
Saddles and anchorage points visually inspected daily

Hydraulic jacks routinely inspected and have a current calibration certificate

Pump fitted with a pressure relief valve

Barrels and wedges routinely cleaned and inspected with the aid of magnification

Rejected items such as barrels and wedges are removed from the production process immediately



Opportunity for improvement

Development of a stressing policy

Ensure operatives involved in the prestressing process are suitably and sufficiently trained (PS1-4) with a record of training available

Develop risk assessments for prestressing activities which include the effects of dust and noise; and ensure they are communicated to operatives

Documented safe system of work (SSOW) for prestressing activities; with written evidence that employees have been trained on the SSOW

Development of a procedure for inspecting wires and for de-tensioning of beds

Ensure stressing equipment inspections are completed and available

A Report of Thorough Examination is available for all lifting equipment used during prestressing activities

Provide a safe location for the stressing operative during stressing operations

Provide written instruction detailing size of strand and appropriate stressing force to the stressing operative

Protection measures to be in place post stressing at stressing and non-stressing ends

Ensure hydraulic jacks are maintained with a maintenance record available

Use of a steel barrel insert tool to measure taper of the barrel

Ensure spot checks are completed alongside an independent inspection of barrels and wedges every 12 months

Store barrels and wedges in a rotational system

Where lubrication sprays are used, they should be risk assessed

Where risk assessment for the use of lubrication spray identify the need for an extraction system, one needs to be provided

Maintain records for the cleaning, inspection and discarding of barrels and wedges

NDT tests to be carried out on all beds every five years

Further resources

Resources to assist the concrete industry in implementing suitable prestressing activity controls can be found at:

- [Prestress Initiative - Resource List \(HSENI website\)](#)

The inspection template used by inspectors during the 2024-25 inspection initiative can be found at:

- [Prestress Initiative - Inspection Proforma \(HSENI website\)](#)

HSENI enforcement action

One Prohibition Notice was served by Inspectors during the 2025 Inspection Initiative:

- procedure for cleaning and inspecting barrels and wedges was inadequate

Prestressing operations remain a major risk for the concrete sector in Northern Ireland. HSENI intend to repeat the Prestressing Initiative in Autumn 2026.

Health and Safety Executive Northern Ireland

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