

THE CITY OF NEW YORK  
HOUSING AND DEVELOPMENT ADMINISTRATION  
DEPARTMENT OF BUILDINGS

DEPARTMENTAL MEMORANDUM

DATE: June 19, 1974

TO: Borough Superintendents  
FROM: Thomas V. Burke, P.E., Director of Operations  
SUBJECT: Inspection and Tests of Welds

This memorandum supplements the memorandum dated August 16, 1971 and applies to applications filed under both the 1938 and the 1968 Building Codes.

In a restrained joint involving steel members generally over 1.5 inches thick, when the weldment cools, the resulting contraction may tear the steel. The tearing may appear as internal microscopic cracking detectable ultrasonically, or at the surface where it is visible.

The following procedure shall be implemented immediately in order to provide for detection of the above defects pending amendments to the Welding Rules which will provide for the phenomenon of lamellar tearing of steel.

1. Applicability and methods to be used.

When any of the components of a joint subject to stress due to moment are welded and exceed 1.5 inches in thickness, either of the following additional requirements shall be met.

(1.1) Non-destructive testing in item 2 shall be mandatory for the weld and base metal in the region of the weld, and all deficiencies that are detected shall be remedied.

(1.2) Preheating and insulated cooling techniques shall be employed.

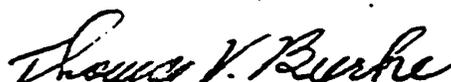
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2. Non-destructive Testing

(2.1) Non-destructive testing shall be utilized by the architect or engineer designated for controlled inspection to augment other inspection requirements.

(2.2) Non-destructive testing shall conform with the requirements of section 607 (Non-destructive Testing) and Appendices B (Radiographic Inspection of Welds) and C (Ultrasonic Testing of Groove Welds) contained in AWS D1.0-69-Welding in Building Construction, or with sections 6.7 through 6.23 and the related appendices in AWS D1.1-72, Structural Welding Code. Other methods of non-destructive testing acceptable to the Commissioner of Buildings, consistent with good practice, may be used.

In addition, in the course of inspection of welding, verification that only licensed welders are performing structural welding shall be required, by ascertaining that the individual has his welder's license on hand. Copies of welder's licenses shall not be acceptable, unless issued by this department.

  
Thomas V. Burke, P.E.  
Director of Operations

TVB:IEM:njk

cc: Chairman Klein, B.S. &A.  
Comm. Karagheuzoff  
Dep. Comm. Cooke  
Ass't Comm. Stulz  
Exec. Staff  
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Welding Inspection Agencies