



October 13, 1995

Reference:
Our File: 95-08-05

PearlWeave Safety Netting Corp.
606 West 131 Street,
New York, NY 10027

Attention: **Larry Greenberg**

Re: Qualification Tests of Personnel Nets

This letter is to confirm our witness of an independently conducted *Manufacturer's Prototype Test* for a Personnel and Debris Net. The nets are manufactured by PearlWeave Safety Netting Corporation of New York, New York and this test series was commissioned by PearlWeave Corporation.

The qualification testing was performed to demonstrate compliance, under the supervision of a Professional Engineer, that the net provided by PearlWeave Corporation meets the performance test requirements as set out by the American National Standards Institute Standard ANSI A10.11-1989 Personnel and Debris Nets for Construction and Demolition Operations.

The test frame was built for the specific purpose of conducting tests such as personnel net qualification tests. The frame conforms to the criteria specified in the ANSI document, with a 24 x 17' inside clear opening and the frame is 50 ft overall in height. The load support structure allows for staging the drop load at any position within the 24 x 17' area. The frame supporting the net is constructed using W12x53 beams. A 3/4" galvanized wire rope is secured to the interior edge of the web at mid-span and the corners. Snap hook hardware is spaced along the wire rope to allow attachment of the net at intervals specified in the ANSI standard.

The net tested, identified as Net 'A', measured 17 by 24 feet and was fabricated from two mesh sections spliced together at the 12 foot mark along the long dimension. The splice was made using the same nylon twine that is used for the mesh. The square mesh pattern is closely maintained in the area of the splice and the splice is not readily discernible except for a difference in the knots.

The test was conducted in accordance with Section 8.2 of the Standard A10.11-1989 (*Manufacturer's Prototype Test*). As required in the standard, the test net was installed in the steel test frame at 3'-0" intervals along the 24 ft length and at 2'-10" intervals along the 17 ft length.

The material specifications as reported by the manufacturer are:

- Mesh - Nylon ,double stranded UV treated
- Mesh Size - 8 inches stretched, 4" square
- Frame Rope - 5/8 inch Polypropylene
- Hanging Cord - #96 Braided, UV treated

When installed in the frame, the initial sag of the net was 30" as measured from the center line of the wire rope to the lowest point of the net. The test frame is staged over a ground depression and no contact occurred between the loaded net and the ground beneath. The perimeter of the net remained level for the duration of the tests.

The 350 lb. bag of sand used for the test weight was built by placing 3 separate sand bags inside a cylindrical PVC coated nylon bag which has a leather bottom and reinforced with nylon straps. The test weight bag measured 24"

in diameter by 31" long. The bag was weighed on a commercial scale calibrated by Weights and Measures Canada and is accurate to ± 2 lb.

The test weight was dropped into the net from a height of 50 ft, as measured from the bottom of the bag to the elevation of the 3/4" wire rope used to support the net hooks. The test weight was positioned on the support tower along the centerline of the short dimension and at each of three quarter points (6 foot intervals from the end of the net along the long dimension of the net).

There was a 30 minute (approximately) interval between tests due to the time required to inspect the net and lift and reposition the weight. This interval meets the minimum 5 minute interval specified in the standard for recovery of the net material.

NET 'A' demonstrated the ability to sustain three drop tests in accordance with the test standards. The net did not exhibit any significant distortion of the net pattern and there were no broken strands found.

We trust this report meets with your present requirements.

Respectfully submitted,

LUKAY RESEARCH AND DEVELOPMENT LTD.



Darrell Curilla, P. Eng.