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The Council solicits and makes available pertinent information from both private and public sources, seeks expression of points of view from all who may wish to contribute, advances consensus opinions and selected issues of standards and standards organizations, develops networking to match speaking and information resources with the needs and demands of the community, and promotes specific seminars and symposia.

A Primary Mission of the Council is to promote effective means of surface preparation in the maintenance industry using water and water/abrasive blasting techniques.

This mission is viewed as important because the conservation of resources, particularly the public infrastructure, has a significant and long lasting economic impact on the well-being of every citizen.

The Advisory Council is a sponsor of the *Lydia Frenzel Conference Series*.

Aracruz, JANUARY 12, 2001

HYDROBLASTING

TEST WITH AND WITHOUT PROPRIATORY BÚFALO (KEVLAR®) PROTECTION SUIT

Test were done in off-shore SS45-ATLANTIC STAR (north from Rio de Janeiro – Brasil) ,from 23 to 25 March 2000 with UHP pump (30,000 psi) using a rotary pneumatic gun with 4 sapphire nozzle rotating aprox. 2,500 RPM, and distance of 40 mm (1.5 inches) between nozzle and test .

Translation velocity (from side to side) of the gun 0.0833 m/sec (0.3 Km /hr, 3.24 inches/sec)

The jet velocity 2210 Km/hr (614 m/sec, 2,030 ft/sec)

The normal translation velocity in the field would be 12 times higher, or closer to 1 m/sec.

That means the real damage would be much more than what appears in this test.

A piece of pig rib was used because it is similar to human body. We named the speciman rib "John."

Kelvar is a registered trademark of Du Pont. Búfalo is a trade name for Acuablast

PHOTOS OF THE TEST USING SPECIAL SUIT (KEVLAR®)



Photo 01 – Pig rib was fixed with nails to a wood table



Photo 3 – Passing the rotary gun over the test with 0,083m/sec (0,3 Km/hr)



Photo 02 – Pig rib covered with sail cloth Kevlar® suit and yellow PVC cloth. We named the test speciman:John (João)



Photo 04 – After UHP jetting , the PVC cloth, was destroyed. First and second layer of Kevlar suit has been cut. (Total of 7 Kevlar layers)



Photo 05 – A closer view of the Kevlar suit



Photo 07 – John (João), our pig rib, is safe....
The rib without damage



Photo 06 – The interior side of the Kevlar suit:
We observe no destruction, only wet.

TEST PHOTOS WITHOUT KEVLAR SUIT



Photo 08 – Preparing the test , only PVC and
sail cloth protection



Photo 09 – John (João) is prepared for the
UHP test using only PVC and sail cloth



Photo 10 – Passing the UHP gun over the test



Photo 13 – We see about 5 millimeter cut of the wood table



Photo 11 – Total cut over PVC and sail cloth and also cutting all the flesh



Photo 14 – We announce condolences from our nice friend John, the pig rib.
Inform of the medical Institute:
John, 24 years old died today in this hospital.
This heart , right lung were seriously damage with aprox. 0,8 lts of water at a velocity of 2210 Km/hr



Photo 12 – Closer

CONCLUSION:
UHP worker protect your life!!!

LUIS ORTEGA TROTTER