

**ISSUE: 05. OPERATIONAL APPROACHES, EQUIPMENT AND PRODUCTS FOR WINTER CONDITIONS**

**SUB-ISSUE:** Deicing products and testing

**Session:** ( )

**Poster:** 06/02/2014 ( 09:30 - 12:30 h )

**Room:**

**MR. STEINAR OS**

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Heatwork AS

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**Presentation title:**

THAW SOLID ICE IN CULVERTS AND DRAIN TRENCHES IN LESS THAN 60 SECONDS

**Summary:**

The Ice Guard Systems (IGS) is a patented solution for quick, simple and safe unblocking of frozen culverts and drain trenches. The system works by permanently fitting IGS alloy metal pipes into culverts and waterways which are prone to icing problems. The IGS contains a closed loop fluid based system with quick release couplings above ground level. The non-hazardous heat transfer fluid (VTV) is preheated up to 100°C by a mobile heating solution (FrostHeater) and circulates in a bi-directional flow/return within the same IGS pipe. The heated VTV fluid flows through an insulated rubber hose in the center of the IGS pipe and is released at the end of the plugged IGS pipe. This creates a VTV fluid return that heats up the IGS pipe and ensures optimum heat transfer to the surrounding ice. The cooled VTV fluid returns to the FrostHeater where it is re-heated and the cycle is repeated.

