

**Total Inward Leakage of Respirators
and Other Personal Protective Equipment**

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ABSTRACT

Recent trends in the field of personal protective equipment (PPE) testing have focused on the need to effectively evaluate PPE systems performance for Total Inward Leakage (TIL) under laboratory conditions. While total inward leakage performed under laboratory conditions does not reflect expected actual field level PPE performance, it does represent a criteria for performance that influences PPE design.

The National Personal Protective Technology Laboratory (NPPTL), TIL Program will establish TIL laboratory test capability for PPE. The program will address this important performance requirement beginning with respirators. The initial respirator TIL project will cover half-mask respirators including quartermasks and filtering facepieces. This project spans a period of approximately 12 months concluding with introduction of respirator testing in April 2005.