

**Acoustic  
Emission  
Testing of**

**AERIAL DEVICES and**

**Associated  
Equipment  
Used in the**

**UTILITY INDUSTRIES**

**Bingham/Ek/Tanner  
editors**



**STP 1139**

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# ***Acoustic Emission Testing of Aerial Devices and Associated Equipment Used in the Utility Industries***

*Allen H. Bingham, Calvin W. Ek, and Jerry R. Tanner, editors*

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### **Peer Review Policy**

Each paper published in this volume was evaluated by three peer reviewers. The authors addressed all of the reviewers' comments to the satisfaction of both the technical editor(s) and the ASTM Committee on Publications.

The quality of the papers in this publication reflects not only the obvious efforts of the authors and the technical editor(s), but also the work of these peer reviewers. The ASTM Committee on Publications acknowledges with appreciation their dedication and contribution to time and effort on behalf of ASTM.

# Foreword

This publication, *Acoustic Emission Testing of Aerial Devices and Associated Equipment Used in the Utility Industries*, contains papers presented at the symposium of the same name, held in Portland, OR on 10 Sept. 1991. The symposium was sponsored by ASTM Committee F-18 on Electrical Protective Equipment for Workers. Allen H. Bingham of Georgia Power Company in Forest Park, GA, Calvin W. Ek of the U.S. Department of Energy in Vancouver, WA, and Jerry R. Tanner of Independent Testing Labs in Gardendale, AL presided as symposium chairmen and are editors of the resulting publication.

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# Overview

The goal of this symposium was to create an awareness of acoustic emission testing of aerial devices and the results of known test programs for aerial devices.

This publication, *Acoustic Emission Testing of Aerial Devices and Associated Equipment Used in the Utility Industries*, contains six papers that are a product of the symposium held on 10 Sept. 1991, in Portland, OR.

## **Session I: Test and Research Programs**

Allen Bingham and W. C. Veal discuss the Georgia Power AE testing program. Second, C. R. Largin and J. E. Colvin also address an AE testing program. Next, L. R. Gambone et al. deal with AE monitoring and destructive testing of glass fiber-reinforced plastic bucket truck booms.

## **Session III: Equipment**

C. Ek analyzes ASTM round-robin results of AE sensors, systems, brands, and calibration rods. Pollock and Ternowchek write about personnel qualification and certification for AE testing of aerial devices. Last, Ternowchek and Mitchell address advances in AE technology for testing of aerial devices.

These papers confirm that the objectives of the symposium were met. The editors are grateful to the authors for their efforts in preparing the excellent papers included in this publication. These papers provide a valuable contribution to the literature, and effectively demonstrate the advances that have been achieved in this field.

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