

**RELIABILITY OF WIND LOADING
ON LOW-RISE BUILDINGS IN A GROUP**

Svend Ole Hansen

November 1992

TABLE OF CONTENTS

	<u>page</u>
SYMBOLS	
SUMMARY AND CONCLUSION	
1. INTRODUCTION	1
2. THE WIND LOAD CHAIN	5
3. THE WIND AT LOW HEIGHT ABOVE TERRAIN	7
3.1 Homogeneous terrain - the wind profile	7
3.2 Inhomogeneous terrain	13
4. GLOBAL WIND LOAD	14
4.1 Mean wind load	14
4.2 Characteristic surface load	19
4.3 Inhomogeneous terrain	22
5. LOCAL POINT WIND LOAD	29
6. SAFETY ANALYSIS	30
6.1 Basic concepts	30
6.2 Wind load on structures	34
6.3 Extreme winds	38
6.4 C-factors and model uncertainties	45
6.5 Partial safety factors for the wind load	48
7. REFERENCES	55

APPENDICES

- A. Wind tunnel tests carried out in the project.
- B. Figures to Appendix A.