VRACON INC.

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PROPRIET NUMBER PR- Miss. Protice
Ref: 1483-JED Rg. Stride

July 31, 1979

Secretary of the Commission U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Attn: Docketing and Service Branch

le: Proposed Revision to Regulatory Guide 5.44--Perimeter Intrusion

Alarm Systems



RACON Inc. is a manufacturer of perimeter alarm systems and appreciates the opportunity to comment on the referenced regulatory guide. These changes in most cases represent improvements and/or items that are presently included in equipment shipped for nuclear safeguard applications. RACON approves of these changes. However, we would like to comment concerning two areas.

## Page 14, paragraph (e)

It will be difficult for a manufacturer to guarantee a FAR (False Alarm Rate) of one alarm per zone per week when the conditions of terrain, environment, installation height and protuberances in the zone are not clearly defined. Proper detection sensitivity of 95% is acceptable provided the installation criteria is more carefully defined.

## 2. Page 16, paragraph b.(2)

The installation criteria states that the clear zone between the transmitter and receiver be clear of obstructions and free of rises and depressions of a heighth or depth greater than 15cm. It is RACON's experience that terrain rises or falls should not exceed 5cm for best performance in a microwave system. Increasing this dimension requires

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## 2. Page 16, paragraph b. (2) cont'd

a higher gain in the amplifier to detect a 30cm sphere (crawling target). Microwave systems are impacted by objects within the zone. Therefore, criteria for zone width clearances, etc., in the intrusion detection handbook should be followed.

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If RACON can provide any further information in this regard, please contact me.

Sincerely,

James E. Dooley E. Lealey

Vice President Marketing

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