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# REGULATORY GUIDE

DIRECTORATE OF REGULATORY STANDARDS

## REGULATORY GUIDE 8.5

### IMMEDIATE EVACUATION SIGNAL

#### A. INTRODUCTION

Section 70.24 of 10 CFR Part 70 requires criticality detection and alarm systems in any area containing special nuclear material when the licensee is authorized to possess more than 500 grams of U-235, 300 grams of Pu, or 300 grams of U-233. This guide defines the characteristics of an acceptable audible alarm for use in this and other instances where prompt, complete evacuation is required to prevent serious injury from radiation exposure.

#### B. DISCUSSION

United States of America Standards Institute Subcommittee N2.1, Ionizing Radiation Symbols, Color Codes and other Identifying or Warning Devices, prepared standard N2.3-1967<sup>1</sup> which was approved by the United States of America Standards Institute on

<sup>1</sup>The United States of America Standards Institute became the American National Standards Institute, Inc., in 1969. Copies of ANSI N2.3-1967 may be obtained from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

October 3, 1967. The standard defines the characteristics of an immediate evacuation alarm system.

#### C. REGULATORY POSITION

The characteristics of an immediate evacuation signal described in ANSI N2.3-1967, "Immediate Evacuation Signal for Use in Industrial Installations Where Radiation Exposure May Occur," are generally acceptable for use wherever such a system may be needed or required, subject to the following:

1. The minimum duration of the signal should be sufficient to ensure evacuation and permit implementation of access control.
2. Within a given facility or plant, the unique signal described in N2.3-1967 should be consistent if used in more than one location.
3. In some cases, plant design features or operating conditions may require alarms different from that described in the standard. This determination will be made on an individual basis.

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