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Regulatory Guide

THE PREPARATION OF REPORTS OF A
SIGNIFICANT EVENT AT A URANIUM
PROCESSING OR URANIUM HANDLING
FACILITY

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Canada

**R-89, THE PREPARATION OF REPORTS OF A
SIGNIFICANT EVENT AT A URANIUM
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Inquiries, or requests for copies should be addressed to:

Office of Public Information
Atomic Energy Control Board
P.O. Box 1046
Ottawa, Ontario
CANADA
K1P 5S9

Telephone: (613) 995-5894

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PROCESSING OR URANIUM HANDLING
FACILITY

A. PURPOSE

Licences to operate uranium processing or uranium handling facilities require that certain events be reported to the Atomic Energy Control Board (AECB) and to other regulatory authorities. Reports of a significant event describe unusual events which had or could have had a significant impact on the safety of facility operations, the worker, the public or on the environment. The purpose of this guide is to suggest an acceptable method of reporting a significant event to the AECB and to describe the information that should be included.

The reports of a significant event are made available to the public in accordance with the provisions of the Access to Information Act and the AECB's policy on public access to licensing information.

1. Definition of a Significant Event

A significant event with respect to a uranium processing or uranium handling facility is an event which could have, or did have an impact on public or workers' safety or on the quality of the environment from the standpoint of exposure to radiation, or toxic substances. Examples of a significant event include, but are not limited to the following:

- (a) excessive or abnormal degradation or weakening of safety-related components or systems;
- (b) an occurrence which causes or could cause a hazard to persons or to the environment that is different in nature or greater in probability or magnitude from those previously associated with the operation of the facility;
- (c) the failure of a facility's safety or protective systems to meet their overall design objective or intent;
- (d) the unplanned release of a toxic or radioactive prescribed substance exceeding action levels or other regulatory criteria specified in the licence;
- (e) an abnormal event, such as a fire or an explosion, which threatens the safe operation of the facility;
- (f) a violation of a licence condition or an AECB regulation; and
- (g) the occurrence of any event specified to be a significant event in a licence condition;

B. REPORTING REQUIREMENTS

A significant event may require some or all of the several reports described in this part depending upon the nature, extent or duration of the event.

1. Notification Report

1.1 Timing

If prompt reporting of a significant event is stipulated by a condition of the licence or if management of the facility decides that an immediate report of that event should be made, it shall be made as soon as possible and not later than twenty-four hours after the significant event has occurred or has been detected.

1.2 Format

A notification report may be given orally or in writing.

1.3 Recipients

A notification report shall be given to

(a) AECB in every case, and

(b) appropriate agencies including Environment Canada, provincial Ministries of Labour and the Environment, and to municipalities affected where it is anticipated that the event may have an environmental or health impact.

1.4 Content

A notification report shall contain all the details of the significant event that are available at the time the report is made. In particular, that report should contain details of the nature of the event, the date and time of its occurrence, and the actions taken to assess and to mitigate its consequences. If the event has not ended by the time it is reported, the report should contain an estimate of its duration. The name, title and phone number of a contact person should also be provided at the time the report is made.

2. Report of the Event

2.1 Purpose

The purpose of a report of the event is to allow an individual with an in-depth knowledge of the facility's operations to assess independently the implications of the event and subsequent actions, and to judge the appropriateness of the recommendations referred to in paragraph 2.4 (f).

2.2 Timing

A report of the event shall be submitted within thirty days of the occurrence or detection of the significant event.

2.3 Format

A report of the event shall be in writing.

2.4 Content

A report of the event shall contain as much detail about the event as is available at the time that the report is written. Suggested for inclusion in the report are, but not limited to, the following:

- (a) the date and time of the occurrence of the event including details of its discovery and on-site reporting;
- (b) the conditions leading up to the event including details of the state of facility operations, weather conditions and other relevant factors preceding the significant event;
- (c) the nature of the event including its actual cause;
- (d) details of the extent of personnel injuries, equipment damage, environmental impact and other deleterious results;
- (e) actions taken to assess the seriousness of the event and to mitigate its consequences;
- (f) recommendations for the prevention of the occurrence of similar events in the future;
- (g) an estimate of the date of completion of any investigation of the event; and
- (h) such drawings, sketches or graphical aids as may facilitate the description, assessment and comprehension of the event.

3. Follow-up Report

3.1 Timing

A follow-up report, if required by AECB, shall be submitted within three months of the date of the occurrence of the significant event. However, should the circumstances of the event require lengthy laboratory, metallurgical or other analyses, the report may be submitted at a later date with the consent of AECB.

3.2 Content

3.2.1 Abstract

A follow-up report should be accompanied by an abstract which succinctly summarizes the follow-up report. The abstract should highlight any new information or correct information previously reported, if necessary.

3.2.2 Introduction

A follow-up report should contain an introduction which summarizes the main points of the significant event and of any investigation conducted after its occurrence.

3.2.3 Significance and Implications of the Event

A follow-up report should discuss the significance and implications of the event with respect to, but not limited to the following:

- (a) the impact of the event on facility employees, such as their exposure to toxic substances or radionuclides, and any resultant health effects;
- (b) the impact of the event on public health and safety;
- (c) the impact of the event on the environment;
- (d) the impact of the event on the facility, for example, the changes in operating procedures required and the effect of the event on future facility safety;
- (e) any other actual or potential significant causes of effects of the event, for example, the failure of the facility or its personnel protective systems to operate as either stated or implied in documents referenced in the licence; and
- (f) where appropriate, the quantities of toxic substances or radionuclides released, the duration of their release, and their concentrations measured on-site and off-site.

3.2.4 Investigation

This section of a follow-up report should summarize any investigation conducted and the conclusions reached as a result.

3.2.5 Recommendations

This section of a follow-up report should summarize the recommendations made as a result of a review of any investigation concerning:

- (a) the prevention of the event's recurrence or the limitation of the probability of its recurrence;
- (b) the improvement of the response to such an event should it recur; and
- (c) any modification to the facility's design or to its operating procedures.

3.2.6 Corrective Actions

This section of a follow-up report should present a timetable for implementation of the recommendations referred to in section 3.2.5 and indicate those which have already been implemented.