About this Document

This document is the reference description of the International Radiological Information Exchange (IRIX) Format version 1.0. The document has been authored by the IRIX Steering Committee established by the IAEA Incident and Emergency Centre.

Any errors identified in this document, or clarifications sought, should be addressed to the aforementioned bodies. Errata and revisions of the document with corrections and clarifications may be issued and made available by the same.

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Abstract

The International Radiological Information Exchange (IRIX) Format is an information exchange format designed to facilitate web-based exchange of relevant emergency information and data among organisations that respond to nuclear and radiological incidents and emergencies, and in particular the exchange of emergency information among national authorities that have responsibilities assigned under the Convention on the Early Notification in Case of a Nuclear Accident. This document provides a reference description of the IRIX Format version 1.0, covering its different parts, including conceptual information structure and representation in the Extensible Markup Language (XML). The document is meant to serve as a reference document for those organisations that plan on developing emergency information exchange systems based on the IRIX Format.
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1 Introduction

The International Radiological Information Exchange (IRIX) Format is an information exchange format designed to facilitate web-based exchange of emergency information and data among organisations that respond to nuclear and radiological emergencies.

The IRIX Format defines a well-defined information structure and machine readable format in the Extensible Markup Language (XML) for carrying the different types of information and data that are of relevance to response organisations when responding to a nuclear or radiological emergency.

The IRIX information structure encompasses information such as basic information about the event (date and time of event, location, etc.), information about the status of the nuclear facility or radiation source involved, information about any releases of radioactive material to the environment, information on protective actions taken or planned to protect the public, and radiological monitoring data. It covers such information that is of immediate use to authorities for taking decisions on protective actions for the public, but also more detailed information and data which can be used for improving the assessment of the emergency situation and the subsequent decision making. The IRIX information structure supports the key categories of information to be exchanged internationally under the terms of the Convention on Early Notification in Case of a Nuclear Accident (“Early Notification Convention”). The use of the IRIX Format is however not limited to this application.

A key objective of the IRIX Format is to enable those organisations that are involved in the response to nuclear and radiological emergencies to develop interoperable systems for exchanging emergency information and data by providing a common international standard information exchange format. By adopting the IRIX Format as a standard format, the compilation, exchange and processing of emergency information and data should not be impeded by the need to convert and transcribe information between different representations and formats that may otherwise be required if the organisations involved were using different formats.

1.1 History and origin

The IRIX Format builds on previous work to establish a common standard data format for information exchange during nuclear and radiological emergencies.

In 1992 the IAEA published a guidance document titled International Exchange of Information and Data Following a Major Nuclear Accident or Radiological Emergency. The document, which described arrangements that needed to be established to provide for an effective exchange of post-accident data under the Early Notification Convention, also defined a data structure referred to as the Convention Information Structure (CIS) for use in the initial notification and the follow-up reporting of urgent information in the first few days of an accident. An associated data format for encoding information in the structure was also defined and subsequently used in the development of international notification systems, including the IAEA’s EMERCON system and the European Community Urgent Radiological Information Exchange (ECURIE) system.

In 2000, the IAEA issued a major revision of its Emergency Notification and Assistance Technical Operations Manual, and along with that manual, a new suite of reporting forms to use for international notification and information exchange under the Early Notification Convention. These
forms were based on a simplified information structure compared to that of the CIS, and were adopted as the standard forms to use, not only in the IAEA’s EMERCON system, but also in many countries’ bilateral and multilateral information exchange arrangements.

In 2004, following a meeting in 2003 of representatives of National Competent Authorities identified under the Early Notification Convention, the IAEA and its Member States initiated the implementation of an international action plan for strengthening the international preparedness and response system for nuclear and radiological emergencies. One of the issues that the action plan was set out to address, was the need to create a standard data format that would enhance and replace existing formats in use, including the CIS structure still in use in the ECURIE system and the IAEA’s EMERCON report format, and to address new information requirements identified by the different expert groups under the action plan. A group of experts drafted an initial version of a new format, and it was given the name the International Radiological Information Exchange Format, or “the IRIX Format” for short. In 2009 when the action plan concluded, a draft version of the IRIX Format had been developed.

In 2010, the IAEA’s Incident and Emergency Centre established the IRIX Steering Committee tasked to finalise, maintain and further develop the IRIX Format. This document describes version 1.0 of the IRIX Format issued by the IRIX Steering Committee.

1.2  Purpose and structure of this document
This document provides a reference description of the IRIX Format version 1.0, including the information structure and its representation in the Extensible Markup Language (XML). The document serves as a reference document for both the information analysts who are to map the information and data models used internally in organisations onto the IRIX Format structure, and the software developers who will develop or extend existing information systems to be used for exchanging information with other organisations using the IRIX Format.

Chapter 2 provides an overview description of the IRIX Format. It explains the various structures of the format and their use. Chapter 3 provides a listing of all the elements of the format with a brief description of each element. Chapter 4 contains the value lists that are used in many places in the format, and which would be too long to fit into Chapter 3. Appendix A contains information about the XML schemas which provide the most detailed definition of the IRIX Format, and which are not contained in this document. Appendix B contains several examples illustrating the use of the IRIX Format.

Note that this document does not discuss the rationale behind the inclusion or exclusion of particular information structures or items in the IRIX Format.
2 Overview description of the IRIX format
This chapter provides an overview description of the information structure of the IRIX Format, and also describes some general features of the XML representation. A detailed listing of all the elements of the format is provided in Chapter 3 and Chapter 4.

2.1 The information structure
A schematic overview of the information structure of the IRIX Format is provided in Figure 1.

![Figure 1 Schematic overview of the IRIX information structure](image)

2.1.1 The Report element
A principal concept in the IRIX Format is the report. An IRIX report represents a message containing emergency related information and data, and/or requests for such information or data, sent from one organisation to one or more other organisations. Any information exchanged in the IRIX Format must be packaged as an IRIX report.

An IRIX report has a set of meta-data associated with it, including the name of the organisation issuing the report, the date and time when the report was created, a unique identifier of the report etc. The meta-data is contained in the Identification section, which is the only mandatory element of an IRIX report.

In addition to the Identification section, an IRIX report may contain a number of content sections. The content sections allow including content of different types in the report. A total of 11 content sections have been defined in the IRIX Format.

Nine of the content sections represent the main class of content sections defined in the IRIX Format – the information sections. The information sections allow including structured and semi-structured information on specific subjects of interest. The nine information sections are:

- Event Information section
Besides the information sections, there are two special content sections in an IRIX report: the Requests section and the Annexes section.

The Requests section allows the sending organisation of the report to address requests for information to the recipient organisations of the report. It can also be used to return responses to such requests for information.

The Annexes section allows including additional information in the form of attached files, or as free text annotations associated with any of the information sections or subjects of the report, and also cryptographic signatures.

2.1.2 The Identification section

The Identification section contains information about the report. There is some information in the Identification section that is required in every report. This includes:

- The name of the organisation issuing the report
- The date and time when the report was created
- An indication as to whether the report is issued in connection with an actual event, is sent as a routine report (e.g. containing routine radiation monitoring data), is connected to an exercise event or a test
- A globally unique identification number of the report, as assigned by the issuing organisation.

The globally unique report identification number allows organisations that participate in the information exchange to make references to a particular report as well as to identify duplicate copies of a report when received through different routes.

Optional information that may be included in the Identification section includes:

- References to previously issued reports for which this report provides an update or which this report revokes/replaces
- A report sequence number for indicating the sequential order of the report within a series of reports issued for a particular event
- A confidentiality marking indicating whether the information in the report may be disclosed and shared with the public, or may be circulated for authority use only
- A list of recipient organisations, to which the report is addressed
• References to reporting requirements under which the report is provided. A pre-defined value is the Convention on Early Notification of a Nuclear Accident. References to other reporting requirements may also be included.
• Name and contact details of a contact person for the information provided in the report, as well as address to a website where further information is made available.
• References to one or more identifiers of the event to which the report relates. The referenced event identifier may belong to either the reporting organisation or to some other (e.g. international) organisation.

2.1.3 The Event Information section
The Event Information section is used in the context of an event for providing basic information about the event, including information that is usually static in nature (e.g. time, location and nature of the event) and information that is usually dynamic (e.g. the current emergency class declared at a nuclear installation).

Required information in the Event Information section includes the following:

• The type of the event. (A list of pre-defined event types is provided in the format)
• The date and time of occurrence of the event
• The location of the event, e.g. name of place/facility and geographical coordinates

The Event Information section may also be used to provide the following information:

• A brief free text description of the event
• Information on the object or facility involved. For an event involving a nuclear reactor, the type and power of the reactor may be provided. For an event involving one or more radioactive sources, nuclides and activity contained in the source(s) may be provided.
• The status and trend in conditions at the nuclear installation involved (if applicable). The information may include status of reactor criticality, e.g. whether it is continuing, stopped or unknown, and whether severe fuel damage has occurred.
• The Emergency Class declared at a nuclear installation (if applicable), including time and basis for the declaration
• The INES classification, including date and justification of the classification

The Event Information section is only meant to be provided by the organisation that is reporting on an event occurring under its own jurisdiction. Organisations that provide reports relating to an event occurring under another jurisdiction, e.g. concerning transboundary consequences of the event, are not meant to include this section in their own reports.

2.1.4 The Release Information section
The Release Information section is used for providing relevant information about any actual or projected release(s) of radioactive material into the environment. 

The section has two subsections. The first subsection allows to provide a simple indication of whether a release has occurred, is likely or unlikely to occur. The second subsection allows to provide more detailed information about any actual or/and projected release(s). IRIX uses the concept of “release phases”. Multiple releases from a source occurring at different times or via
different routes through an installation may be described as different release phases, each with its own information on start and end time of release, nuclides released etc. Where it is deemed more appropriate to provide an aggregate description of the release, whether occurring as one or more phases, this approach is also possible. In either case, a release phase in IRIX describes either actual release(s) or a projected release(s), not a combination of the two.

For each release phase described in the second subsection, the following information may be provided:

- Whether the information regards an actual or projected release
- Whether the release is to atmosphere or to a water body
- For a projected release, the likelihood of its occurrence
- The start and end time of the release
- The release route
- The estimated activity for each nuclide or combination of nuclides released or to be released
- Whether the release is chemically toxic (e.g. major release of uranium hexafluoride)
- For a release to the atmosphere:
  - The estimated height of the release, including base height (stack height), top height and effective height of the plume
  - Whether the release is gaseous or particulate (or both)
  - The main transport direction (i.e. direction headed) and estimated transport speed in the main direction (particularly relevant if meteorological measurements cannot be considered characteristic of the overlying meteorological situation, such as at coastal or valley sites)
  - For a release of Iodine, the relative fractions of Iodine in elementary, organically bound and aerosol form released
  - Whether the release is accompanied by a significant emission of heat
- For a release to water:
  - The name of the water body affected
- A free text description of the characteristics of the release

2.1.5 The Meteorology section

The Meteorology section is used for providing information on local meteorological conditions (observed, projected or forecasted) at specific geographical locations and time periods of interest. The information may be provided to help assess the local dispersion conditions for an atmospheric release of radioactive material, or to supplement radiological environmental monitoring data (e.g. measured dose rate levels in the environment). The section is not meant to be used for providing information on the overlying meteorological situation\(^1\).

Several meteorological data records valid for different locations, altitudes and/or time periods may be provided, each record containing information on weather parameters such as:

- Whether the data reflects observed, projected or forecasted weather
- Wind direction and speed (and fluctuation)

\(^1\) Such information may however be provided in the Annexes section of the report structure.
• Precipitation (form, amount and/or average intensity for the indicated time period)
• Air temperature
• Atmospheric pressure
• Cloud cover
• Dew point temperature
• Temperature inversion layer height
• Solar radiation
• Relative humidity
• Pasquill stability class
• WMO weather code

In addition to the above parameters, each weather data record may include a free text description of the weather for the specified location and time period.

2.1.6 The Consequences section
The Consequences section is used for providing information on the consequences of an event. The section has three subsections.

The first subsection allows to provide a listing of areas that are affected, or projected to be affected, as at a specified time. For each area listed, a description of the type of effect may be provided along with an indication as to whether the effect has been confirmed or not, or for a projected effect, whether it is likely or not to occur. The information is primarily meant to describe radiological effects in the areas, such as contamination or elevated radiation levels.

The second subsection allows to provide information on the numbers of casualties following an event. The information may be provided with different levels of detail. For example, total numbers may be provided broken down by different types of casualties (e.g. exposed to radiation, hospitalised, wounded or dead) and/or for different groups of people (e.g. members of public, emergency services etc.).

The third subsection allows to provide free text descriptions of radiological issues related to public health, foodstuff or/and the environment, following an event.

2.1.7 The Response Actions section
The Response Actions section is used for providing information on response actions taken or planned in the response to an event. The section has two subsections.

The first subsection allows to provide information on protective actions taken to protect the public in an emergency, including access restrictions, sheltering, evacuation, administration of stable iodine prophylaxis, and restrictions on consumption of foods or water. The section allows to provide quick indication of whether any protective actions have been taken or planned or not, along with a more detailed tabulation of the different protective actions and their status of implementation. The following types of tabulations are possible:

1) Tabulation by type of protective action and geographical area
2) Tabulation by type of protective action only
The former representation allows to provide a detailed “map” of the status of protective actions in different geographical areas, where each table record may have the following information: type of protective action, geographical area concerned (e.g. area sector or other polygon described by picture or text), status of implementation, begin and end time of the protective action (where relevant).

In the latter representation, an aggregate description of the implementation of different types of protective action may be provided, including geographical areas concerned (described by text or furthest distance away from the event location), overall status of implementation (taking all concerned areas into account), and begin and end time of the type of protective action (where relevant).

Independent of the representation chosen in a report, the information provided is assumed to describe the full picture of the protective actions taken or planned within the jurisdiction which the report concerns.

For protective actions recommended for nationals located in foreign countries, the countries concerned may be indicated clearly.

The second subsection allows to provide a free text description of response actions taken or planned by relevant response organisations within the relevant jurisdiction. The information need not be limited to protective actions.

2.1.8 The Measurements section
The Measurements section is used for reporting environmental radiological monitoring data, e.g. gamma dose rate levels and nuclide concentrations in different media or substances such as air, deposition, river water, drinking water, food etc. The section is exclusively meant to be used for reporting data derived from actual measurements, not results of computer model predictions.

The section hosts two different data structures optimised for reporting different types of measurement data:

- The Dose Rate structure, optimised for reporting dose rate measurements from monitoring station networks
- The Sample structure, optimised for reporting nuclide measurements in sampled substances

The structure for dose rate measurements allows to provide information such as:

- Type of dose rate measured (e.g. Gamma, Beta, Gamma and Beta)
- Time of measurement
- Location of measurement
- Measurement value and unit (Sv/h)
- Supplementary details, such as type of measurement apparatus used

The structure for sample type measurements allows to provide information such as:

- Type of medium or substance sampled
- Sampling location
• Sampling time/period
• Nuclide or nuclides measured
• Measurement value and unit (e.g. Bq/m³, Bq/l...)
• Measurement date, and/or reference date (where decay correction needs to be taken into account)
• Whether the reported value represents a single discrete measurement value, or is an aggregate value (e.g. spatial/temporal min/max/average value) derived from a collection of measurement values
• Supplementary details, such as sampling depth (e.g. for soil samples), surface type description, sampling volume (e.g. for air samples), type of sample treatment, name of measurement laboratory etc.

For any type of measurement, the following information may also be provided:

• Uncertainty of the measurement value
• The reference or background value
• Whether the measurement value has been validated (i.e. quality checked) or not.

2.1.9 The Medical Information section
The Medical Information section is used for providing information on the results of medical assessments of individuals that have been exposed, or are suspected of having been exposed, to radiation in an event.

The section allows to provide medical information regarding any number of individuals, whose identity may or may not be disclosed. The medical information may include:

• Estimated dose (e.g. whole body dose, thyroid dose, etc.)
• Diagnosed health effects (e.g. acute radiation syndrome, bone marrow depression, etc.)
• Prognosticated health consequences (e.g. amputation, contracture, fatality, etc.)

2.1.10 The Media Information section
The Media Information section is used for providing information related to the management of media and public communication during an event. The section allows to provide contact details of officials responsible for the coordination of the release of information to media and the public, and the web address of a main public website on which such information is made publicly available.

2.1.11 The Locations section
The Locations section is used for providing descriptions of one or more geographical locations of interest, and which may be referenced from other sections of the report (e.g. the Measurements section). A location description may include the name of the location (e.g. name of city, town or facility), geographical coordinates, name of the containing municipality, administrative unit, region, country, as well as a free text description.

2.1.12 The Requests section
The Requests section is used for including requests for information and/or requests for clarifications addressed to the recipient organisation(s) of a report. The same section may also be used by the
requested organisation(s) for providing answers and clarifications back by the requested organisation to the requesting organisation.

Each request is constituted by a request subject, a summary description of the requested information and a unique reference number. A response is constituted by a reference to the relevant request, a summary response text and a unique reference number as well.

2.1.13 The Annexes section
The Annexes section is used for including the following types of information in a report:

- File attachments
- Annotations
- Cryptographic signatures

File attachments may contain any type of relevant information, e.g. more detailed information than what may be provided in the information sections of the report. File attachments may be any type of file, including text files, binary files, and even IRIX reports. Each file attachment may be provided along with some document meta-data, such as file name, content type, author organisation, date of validity, confidentiality etc.

Annotations provide a means for including additional information or remarks in the form of free text in the report. An annotation consists of a brief text and an optional title.

The inclusion of one or more cryptographic signatures enables recipients to verify the authenticity and integrity of the information contained in the report.

2.1.14 General features of the information sections
This section describes some general features of the information sections of the IRIX Format.

2.1.14.1 Value lists
A key requirement in exchange of emergency information is the ability to report and provide information in an as clear, concise and unambiguous way as possible. Since the IRIX Format is intended to be used in international information exchange, key information should also be represented in a way that is language independent to the largest extent possible. For these reasons, many information fields in the IRIX Format accept standard values from predefined value lists. However, in order not to constrain the information that may be provided in such fields, many of these fields also allow for a free text value.

2.1.14.2 Time of validity
The information contained in an IRIX report may provide a situation description which was valid at a point in time that is different from the time at which the report was created or issued. Furthermore, each information section may contain information that was valid each at a different point in time. In order that it is clear at what time the information in an information section was valid at, many of the information sections have a required attribute where the time of validity of the information contained within that section is specified.
2.1.14.3 Canonical representations

The format has been designed to allow little variability in the way information may be represented, making the development of applications that consume information reported in the IRIX Format easier. For example, in the IRIX Format, physical quantities must be given in SI units only and in general without unit prefix (i.e. kilo, micro, etc.). Time declarations must be given in UTC time zone. Geographical coordinates must be given in the WGS84 projection, and so forth. In this way, applications need not know about all the different existing unit systems, time zones, and coordinate reference systems, and how to convert between them. They only need to know how to convert between the representation used in the IRIX Format and the one used within the application, and as a result, should be easier to develop.

2.1.14.4 Extensibility

It is common in some types of data formats to provide an extensibility feature that allows including custom data fields which are not defined as part of the format. In IRIX, this approach is generally not supported, in particular in the information sections. This is so to guarantee that any recipient of an IRIX report knows how to interpret all the information contained in the report.

At a limited number of locations in the IRIX Format, however, extension fields are allowed, primarily to allow providing additional meta-data for information objects contained in the report. Such fields may be used to enhance the processing of the information contained in a report, but may not alter or augment the information set contained in the report. In general, a sender of an IRIX report must not assume that the receiver or receivers will or can process information in extension fields.

Chapter 3 indicates which elements in the format accept extension fields.

2.2 The IRIX XML format

The IRIX Format uses XML (Extensible Markup Language) for representing an IRIX report and its content in a machine readable format and for transmission over wire. Whereas the detailed description of the IRIX XML Format is defined in the IRIX XML schemas (see below), this section describes some general features of the IRIX XML format.

2.2.1 General about the use of XML

XML is a mark-up language that is used in a variety of applications for representing both structured and semi-structured information, and allows encoding information in a format that is often human-readable and machine-readable at the same time. XML naturally represents tree like information structures, such as the different sections and subsections of the IRIX report, and also tabular and relational data. XML is also a suitable format for international application since it is independent of any software platform and also supports Unicode (international text encoding standard). A large number of tools and standards exist for working with information in XML, including tools for reading, writing, querying, transforming and presenting information represented in XML.

Whereas the IRIX XML format has been primarily designed to allow for easy parsing by software, readability by humans has also been taken into account. XML is textual format that can be read and edited using a normal text editor, and this feature can be an advantage in some scenarios. To this end both element names and values in the IRIX XML format have been chosen to be as self-describing as possible, requiring little use of code translation tables etc. This may result in an increase in the size of the report, but should however not be an issue since XML may be compressed...
before transmitting over the wire. Moreover, the IRIX format is not meant to be used for exchanging huge sets of information (e.g. huge measurement data sets) where computer memory requirements for processing the contents could become an issue.

2.2.2 The IRIX XML namespaces
The use of namespaces in XML is a common way of ensuring that elements in XML documents have unambiguous names, and is of particular importance in applications that involve the processing of XML documents of different types (i.e. using different XML “vocabularies”), or of different versions of a format definition. The elements in the IRIX Format version 1.0 have names that are defined in the following XML namespaces:

http://www.iaea.org/2012/IRIX/Format

http://www.iaea.org/2012/IRIX/Format/<Report Section Name>

2.2.3 Version information
The version number of the IRIX format described in this document is 1.0 (i.e. major version number 1, minor version number 0).

New versions of the IRIX format may be issued in the future, and it is therefore necessary to indicate clearly in a report the version of the format being used. In the IRIX format, the version number is indicated by an attribute on the root element of the IRIX XML document.

Minor changes in the format, such as extending value lists with additional values, or adding one or a few elements to the existing structures, would be issued under an increment of the minor version of the format, whereas more significant changes would be issued under a new major version. Applications that are built on a later version of the format should be able to easily handle reports that have the same major version but a lower minor version of the format.

A new major version of the format may also warrant the use of a new XML namespace.

2.2.4 XML schemas
An important feature of XML is that the structure and format of an XML document may be precisely described with a schema against which instance reports may be automatically validated. By utilizing a common schema for validating a received IRIX report, information exchange between independently developed applications can be made more robust.

Information about the IRIX XML schemas is included in Appendix A of this document. Any application that produces or consumes information in the IRIX format should use these schemas to make sure the IRIX reports exchanged conform to all the rules of the format before processing them. An XML document that is not valid according to the IRIX XML schemas is not a valid IRIX report.
3 Elements of the IRIX Format

This section provides a comprehensive listing of all elements of the IRIX Format with brief descriptions of their meaning and use. The elements are listed by report section. For each element, its relative position, name, whether it is a required element or not, number of possible occurrences and type of information content is described. The tables used to list the elements have the following columns:

| No. | Relative position number of an element within a section of the IRIX XML format. Note that the position numbers also indicate parent-child relationship among elements. E.g. an element with the position number “1.1” is the first child element of the first element that may occur in a section. |
| Element name | The XML name of the element in the IRIX XML format. An element name starting with the “@” character indicates that the element is represented by an element attribute rather than an element in the XML format. An element name ending with “[]” indicates that the element may have multiple occurrences. An asterisk symbol (*) indicates that any (non-IRIX) element may be used at this position (cf. “Extensibility” under Chapter 2). |
| Description | A brief description of the information contained in the element. |
| Req’d | Indicates whether the element is required to be present in a report. Possible values: ‘R’ (required when parent element present), ‘R*’ (conditionally required when parent element present), and ‘-’ (optional). |
| Mult. | Indicates the number of allowed occurrences of the element. Possible values are: ‘-’ (no multiple occurrence), ‘M’ (1 or more occurrences; see XML Schema for details). |
| Type | Indicates the type of content of the element. Possible values: ‘Container’ (a group of child elements), ‘String’ (and specialised types of strings), ‘Text’, ‘HTML’, ‘Number’ (and specialised types of numbers), ‘{ … }’ (value from predefined list), and ‘List of …’ (list, space separated, of values of indicated type). |
| Note | Any additional information regarding the element |

Note that:

- Whereas this chapter provides a detailed listing of the elements of the format and their properties, the XML Schema referred to in Appendix A generally contains a more precise specification of the structure and properties of the elements of the IRIX Format.
- Element (or element attributes) with a fixed value are not included in the listings in this chapter.
### 3.1 The Report element

The Report element is the root element of an IRIX report. A full listing of the elements of the Report element is provided in the table below.

**Table 1 Elements of the Report element**

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@version</td>
<td>Version identifier of the IRIX format used.</td>
<td>R</td>
<td>-</td>
<td>String</td>
<td>Fixed, and defaulting, to “1.0”</td>
</tr>
<tr>
<td>2</td>
<td>Identification</td>
<td>Contains information about the report.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td>See 3.2</td>
</tr>
<tr>
<td>3</td>
<td>EventInformation</td>
<td>Contains information about the event.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.3</td>
</tr>
<tr>
<td>4</td>
<td>Release</td>
<td>Contains information about radioactive release.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.4</td>
</tr>
<tr>
<td>5</td>
<td>Meteorology</td>
<td>Contains information about weather conditions.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.5</td>
</tr>
<tr>
<td>6</td>
<td>Consequences</td>
<td>Contains information about event consequences.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.6</td>
</tr>
<tr>
<td>7</td>
<td>ResponseActions</td>
<td>Contains information about response actions.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.7</td>
</tr>
<tr>
<td>8</td>
<td>Measurements</td>
<td>Contains measurement data.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.8</td>
</tr>
<tr>
<td>9</td>
<td>MedicalInformation</td>
<td>Contains information related to medical response.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.9</td>
</tr>
<tr>
<td>10</td>
<td>MediaInformation</td>
<td>Contains information related to media/public communication.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.10</td>
</tr>
<tr>
<td>11</td>
<td>Locations</td>
<td>Contains information on geographical locations of interest.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.11</td>
</tr>
<tr>
<td>12</td>
<td>Requests</td>
<td>Contains requests for information and responses.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.12</td>
</tr>
<tr>
<td>13</td>
<td>Annexes</td>
<td>Contains annex type of information, e.g. file enclosures, annotations, and digital signatures.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>See 3.13</td>
</tr>
</tbody>
</table>
### 3.2 The Identification section

The Identification section is a mandatory section of an IRIX report. A full listing of the elements of the Identification section is provided in the table below.

**Table 2 Elements of the Identification section**

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OrganisationReporting</td>
<td>Identifier (domain name) of the organisation issuing this report.</td>
<td>R</td>
<td>-</td>
<td>Internet Domain Name String</td>
<td>The string must have the format of an internet domain name, but need not be a registered domain name on the internet.</td>
</tr>
<tr>
<td>2</td>
<td>DateAndTimeOfCreation</td>
<td>Date and time at which this report was created.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ReportContext</td>
<td>The type of “context” in which this report was created.</td>
<td>R</td>
<td>-</td>
<td>{ Emergency</td>
<td>Routine</td>
</tr>
<tr>
<td>4</td>
<td>SequenceNumber</td>
<td>Sequence number of this report.</td>
<td>-</td>
<td>-</td>
<td>Positive Integer Number</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>ReportUUID</td>
<td>Unique identifier of this report.</td>
<td>R</td>
<td>-</td>
<td>UUIDv4 String</td>
<td>The identifier is to be understood to be an identifier for the set of information contained in the report, independent of the format/representation in which the information is provided.</td>
</tr>
<tr>
<td>6</td>
<td>Follows</td>
<td>Reference to the unique identifier (ReportUUID) of a previous report, for which this report provides the next update.</td>
<td>-</td>
<td>-</td>
<td>UUIDv4 String</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Revokes</td>
<td>Reference to the unique identifier (ReportUUID) of a previous report which is being revoked/replaced by this report.</td>
<td>-</td>
<td>-</td>
<td>UUIDv4 String</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Confidentiality</td>
<td>Confidentiality of the information contained in this report.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>9</td>
<td>Addressees</td>
<td>List of organisations to which this report is addressed.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>9.1</td>
<td>Addressee[]</td>
<td>Identifier of an organisation to which this report is addressed.</td>
<td>R</td>
<td>M</td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>ReportingBases</td>
<td>List of reporting requirements under which this report is issued.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>10.1</td>
<td>ReportingBasis[]</td>
<td>Descriptor of a reporting requirement under which this report is issued.</td>
<td>R</td>
<td>M</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req’d</td>
<td>Mult</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>11</td>
<td>ContactPerson</td>
<td>Identifier of a contact person for this report.</td>
<td>-</td>
<td>-</td>
<td>Email Address String</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>AdditionalInformationURL</td>
<td>Web address of web site on which additional information is made available.</td>
<td>-</td>
<td>-</td>
<td>URL String</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>EventIdentifications</td>
<td>List of event identifiers for the events with which this report is associated.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>The list may include both the event identifier assigned by the reporting organisation and event identifiers assigned by other organisations as known to the reporting organisation.</td>
</tr>
<tr>
<td>13.1</td>
<td>EventIdentification[]</td>
<td>Identifier of an event with which this report is associated.</td>
<td>R</td>
<td>M</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>13.1.1</td>
<td>@Organisation</td>
<td>Identifier of the organisation to which the event identifier belongs (if different from the reporting organisation).</td>
<td>-</td>
<td>-</td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Identifications</td>
<td>List of contact information for the reporting organisation, for any addressed organisations, and for the contact person for this report.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>14.1</td>
<td>PersonContactInfo[]</td>
<td>Contact information of the contact person for this report.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>14.1.1</td>
<td>Name</td>
<td>Name of person/contact.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.1.2</td>
<td>UserID</td>
<td>An identifier of the person.</td>
<td>-</td>
<td>-</td>
<td>Email Address String</td>
<td></td>
</tr>
<tr>
<td>14.1.3</td>
<td>Position</td>
<td>The position or function of the person in his/her organisation.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.1.4</td>
<td>OrganisationID</td>
<td>A reference to the identifier of the organisation to which the person belongs. The contact details of the organisation may or may not be included in the report.</td>
<td>-</td>
<td>-</td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>14.1.5</td>
<td>PhoneNumber</td>
<td>Phone number of the contact.</td>
<td>-</td>
<td>-</td>
<td>Phone Number String</td>
<td></td>
</tr>
<tr>
<td>14.1.6</td>
<td>FaxNumber</td>
<td>Fax number of the contact.</td>
<td>-</td>
<td>-</td>
<td>Phone Number String</td>
<td></td>
</tr>
<tr>
<td>14.1.7</td>
<td>EmailAddress</td>
<td>Email address of the contact.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.1.8</td>
<td>Description</td>
<td>Additional contact information.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>14.2</td>
<td>OrganisationContactInfo[]</td>
<td>Contact information of the reporting organisation, and any addressed organisations, of this report.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>14.2.1</td>
<td>Name</td>
<td>The name of the organisation.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.2.2</td>
<td>OrganisationID</td>
<td>The identification string of the organisation.</td>
<td>R</td>
<td>-</td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>14.2.3</td>
<td>Country</td>
<td>The country to which the organisation belongs.</td>
<td>R</td>
<td>-</td>
<td>Country Code (ISO 2-ApHA)</td>
<td></td>
</tr>
<tr>
<td>14.2.4</td>
<td>WebAddress</td>
<td>Address to the public website of the organisation.</td>
<td>-</td>
<td>-</td>
<td>URL String</td>
<td></td>
</tr>
<tr>
<td>14.2.5</td>
<td>Address[]</td>
<td>Visiting and/or postal address of the organisation.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req'd</td>
<td>Mult</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>--------------------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>---------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>14.2.5.1</td>
<td>@Type</td>
<td>Indicates the type of the address (visiting or mailing address).</td>
<td>R</td>
<td>-</td>
<td>{ Visiting Address</td>
<td>Postal Address }</td>
</tr>
<tr>
<td>14.2.5.2</td>
<td>Postbox</td>
<td>Postbox number.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.2.5.3</td>
<td>Street</td>
<td>Street address.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.2.5.4</td>
<td>PostalCode</td>
<td>Postal code / ZIP.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.2.5.5</td>
<td>Municipality</td>
<td>Municipality name.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.2.5.6</td>
<td>Country</td>
<td>Country.</td>
<td>R</td>
<td>-</td>
<td>Country Code (ISO 2-Alpha)</td>
<td></td>
</tr>
<tr>
<td>14.2.6</td>
<td>PhoneNumber</td>
<td>Phone number of the contact.</td>
<td>-</td>
<td>-</td>
<td>Phone Number String</td>
<td></td>
</tr>
<tr>
<td>14.2.7</td>
<td>FaxNumber</td>
<td>Fax number of the contact.</td>
<td>-</td>
<td>-</td>
<td>Phone Number String</td>
<td></td>
</tr>
<tr>
<td>14.2.8</td>
<td>EmailAddress</td>
<td>Email address of the contact.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>14.2.9</td>
<td>Description</td>
<td>Additional contact information.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>15  *[ ]</td>
<td>Additional report header information.</td>
<td>-</td>
<td>M</td>
<td>Any Extension Element</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.3 The Event Information section

A full listing of the elements of the Event Information section is provided in the table below.

Table 3 Elements of the Event Information section

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TypeOfEvent</td>
<td>The type of event.</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3</td>
<td>TypeOfEventDescription</td>
<td>The type of event. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>DateAndTimeOfEvent</td>
<td>The date and time of occurrence of the event.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>@IsEstimate</td>
<td>Optional indicator for whether the specified date and time of the event is only an estimate.</td>
<td>-</td>
<td>-</td>
<td>{ Yes</td>
<td>No }</td>
</tr>
<tr>
<td>5</td>
<td>Location</td>
<td>Contains information on the location of the event. For events involving a fixed object (e.g. an installation) the location can also be provided under ObjectInvolved.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td>For the structure of this element, see Locations section.</td>
</tr>
<tr>
<td>6</td>
<td>ObjectInvolved</td>
<td>Contains information on the object involved in the event (installation, source etc).</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>TypeOfObjectOrActivity</td>
<td>The type of object or activity involved.</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>6.2</td>
<td>TypeOfObjectOrActivityDescription</td>
<td>The type of object or activity involved. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>6.3</td>
<td>Name</td>
<td>Name of the object (e.g. installation, source etc) involved.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>6.4</td>
<td>Location</td>
<td>Contains information on the location of the object (e.g. installation, source etc) involved.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td>For the structure of this element, see Locations section.</td>
</tr>
<tr>
<td>6.5</td>
<td>SourceCharacteristics</td>
<td>Contains information on any radioactive sources involved.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.5.1</td>
<td>Source[]</td>
<td>Contains information on a radioactive source involved.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.5.1.1</td>
<td>Sealed</td>
<td>Flag indicating whether the source is sealed.</td>
<td>-</td>
<td>-</td>
<td>{ Yes</td>
<td>No</td>
</tr>
<tr>
<td>6.5.1.2</td>
<td>Shielded</td>
<td>Flag indicating whether the source is shielded.</td>
<td>-</td>
<td>-</td>
<td>{ Yes</td>
<td>No</td>
</tr>
<tr>
<td>6.5.1.3</td>
<td>Nuclides</td>
<td>Contains a list of nuclides that the source contains, along with their activity. The activity can be given per nuclide or per group of nuclides.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.5.1.3.1</td>
<td>Nuclide[]</td>
<td>Contains information on the activity of a nuclide / nuclide combination contained in the source.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.5.1.3.1.1</td>
<td>Nuclide</td>
<td>A nuclide.</td>
<td>R*</td>
<td>-</td>
<td>Nuclide Symbol</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req'd</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
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<td>-----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>6.5.1.3.1.2</td>
<td>NuclideList</td>
<td>A list of nuclides.</td>
<td>R*</td>
<td>-</td>
<td>List of Nuclide Symbols</td>
<td></td>
</tr>
<tr>
<td>6.5.1.3.1.3</td>
<td>NuclideCombination</td>
<td>A nuclide combination.</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>6.5.1.3.1.4</td>
<td>NuclideDescription</td>
<td>A nuclide / nuclide combination. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>6.5.1.3.1.5</td>
<td>Activity</td>
<td>Activity (Bq) of the nuclide contained in the source.</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>6.5.1.4</td>
<td>Description</td>
<td>Additional free text information about the radioactive source involved.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>6.6</td>
<td>ReactorCharacteristics</td>
<td>Contains information on the reactor involved, if applicable.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.6.1</td>
<td>TypeOfReactor</td>
<td>The type of the reactor involved.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>6.6.2</td>
<td>TypeOfReactorDescription</td>
<td>The type of the reactor involved. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>6.6.3</td>
<td>ThermalPower</td>
<td>The thermal power of the reactor (MW).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>6.6.4</td>
<td>ElectricalPower</td>
<td>The electrical power of the reactor (MW).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>6.6.5</td>
<td>Description</td>
<td>Additional free text information about the type or characteristics of the reactor involved.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
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</tr>
<tr>
<td>6.7</td>
<td>Description</td>
<td>Additional free text information about the object (e.g. installation, source etc) involved.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
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</tr>
<tr>
<td>7</td>
<td>EmergencyClassification</td>
<td>Contains information on the emergency class declared at the installation involved, if applicable.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>EmergencyClass</td>
<td>Emergency class declared (as per IAEA Safety Standard &quot;GS-R-2&quot;).</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>7.2</td>
<td>EmergencyClassDescription</td>
<td>Emergency class declared. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>7.3</td>
<td>DateAndTimeOfDeclaration</td>
<td>Date and time at which the emergency class was declared.</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>7.4</td>
<td>BasisForDeclaration</td>
<td>Free text description of the basis for the declaration of the emergency class.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>PlantStatus</td>
<td>Contains information on the current status of the installation/plant.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>CoreState</td>
<td>Contains information on the status of the reactor core, if applicable.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>8.1.1</td>
<td>Criticality</td>
<td>Contains information about criticality of the reactor.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>8.1.1.1</td>
<td>Status</td>
<td>Status of criticality.</td>
<td>R</td>
<td>-</td>
<td>{ Stopped</td>
<td>Continuing</td>
</tr>
<tr>
<td>8.1.1.2</td>
<td>StoppedAt</td>
<td>Date and time at which criticality stopped or is</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req’d</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>-------</td>
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<td>----------------------------------------------------------------------------</td>
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<td>-------</td>
<td>-------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>8.1.2</td>
<td>Severe Damage To Fuel</td>
<td>Contains information on actual or potential severe damage to fuel.</td>
<td></td>
<td></td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>8.1.2.1</td>
<td>Occurrence</td>
<td>Indicates whether severe damage to fuel has occurred or is likely to occur.</td>
<td>R</td>
<td></td>
<td></td>
<td>{ Has Not Occurred, and Unlikely to Occur</td>
</tr>
<tr>
<td>8.1.2.2</td>
<td>Time Of Occurrence</td>
<td>Date and time of actual or projected occurrence of severe damage to fuel.</td>
<td></td>
<td></td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>8.1.3</td>
<td>Description</td>
<td>Additional free text information about the status of the reactor core.</td>
<td></td>
<td></td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>8.2</td>
<td>Spent Fuel State</td>
<td>Free text description of the status of spent fuel, if applicable.</td>
<td></td>
<td></td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>8.3</td>
<td>Trend In Conditions</td>
<td>The trend in the conditions at the plant.</td>
<td></td>
<td></td>
<td></td>
<td>{ Getting Better</td>
</tr>
<tr>
<td>8.4</td>
<td>Description</td>
<td>Additional free text information about the current status at the plant.</td>
<td></td>
<td></td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>INE Classification</td>
<td>Contains information on the INES rating issued for the event.</td>
<td></td>
<td></td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>9.1</td>
<td>INES Level</td>
<td>The INES level assigned to the event.</td>
<td>R</td>
<td></td>
<td></td>
<td>{ INES-0</td>
</tr>
<tr>
<td>9.2</td>
<td>Status Of Classification</td>
<td>Status of the INES rating: 'Provisional' or 'Final'.</td>
<td>R</td>
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<td></td>
<td>{ Provisional</td>
</tr>
<tr>
<td>9.3</td>
<td>Date And Time Of Classification</td>
<td>The date and time at which the INES rating was issued.</td>
<td></td>
<td></td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>9.4</td>
<td>Basis For Classification</td>
<td>Free text description of the basis/justification of the INES rating.</td>
<td></td>
<td></td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Event Description</td>
<td>A summary description / brief status report on the event.</td>
<td></td>
<td></td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>
### 3.4 The Release section

A full listing of the elements of the Release section is provided in the table below.

Table 4 Elements of the Release section

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ReleaseOccurrence</td>
<td>Contains general information on the occurrence of a release, to air, water or both.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>ActualRelease</td>
<td>Contains general information on the occurrence of an actual release, either to air, water or both.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.1</td>
<td>Occurrence</td>
<td>Indicates whether an actual release has occurred or not.</td>
<td>R</td>
<td>-</td>
<td>{ Has Occurred</td>
<td>Has Not Occurred</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Compartment</td>
<td>Indicates whether the release is/was to air, water or both.</td>
<td>-</td>
<td>-</td>
<td>{ Air</td>
<td>Water</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Description</td>
<td>Additional free text information about actual release.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>FutureRelease</td>
<td>Contains general information on the likely occurrence of a future release, either to air, water or both.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.2.1</td>
<td>Occurrence</td>
<td>Indicates whether a future release is likely to occur or not.</td>
<td>R</td>
<td>-</td>
<td>{ Certain Not to Occur</td>
<td>Unlikely to Occur</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Compartment</td>
<td>Indicates whether a likely release will be to air, water or both.</td>
<td>-</td>
<td>-</td>
<td>{ Air</td>
<td>Water</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Description</td>
<td>Additional free text information about projected release.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ReleaseToAir</td>
<td>Contains information on specific releases to the atmosphere.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>ReleasePhases</td>
<td>Contains information on a release to air.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1.1</td>
<td>ReleasePhase[]</td>
<td>Contains information on a release to air.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1.1.1</td>
<td>Occurrence</td>
<td>Indicates whether the release has actually occurred or is projected to occur.</td>
<td>R</td>
<td>-</td>
<td>{ Actual</td>
<td>Projected</td>
</tr>
<tr>
<td>3.1.2</td>
<td>TimeOfRelease</td>
<td>Start and end time of the release (actual or projected).</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1.2.1</td>
<td>StartTime</td>
<td>Start time of the release (actual or projected).</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
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</tr>
<tr>
<td>3.1.2.2</td>
<td>EndTime</td>
<td>End time of the release (actual or projected).</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req’d</td>
<td>Mult</td>
<td>Type</td>
<td>Note</td>
</tr>
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<td>---------</td>
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<td>---------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>3.1.1.3</td>
<td>ReleaseRoute</td>
<td>Release route to atmosphere.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.1.1.4</td>
<td>ReleaseRouteDescription</td>
<td>Release route to atmosphere. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
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<tr>
<td>3.1.1.5</td>
<td>ReleaseHeight</td>
<td>Height of the release.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
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<tr>
<td>3.1.1.5.1</td>
<td>Base</td>
<td>Base height of the release (m), i.e. the height above</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>ground level at which the release occurs (commonly referred to as</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>as &quot;release height&quot;).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1.5.2</td>
<td>Top</td>
<td>Top height of the release (m), i.e. maximum height</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>above ground level reached by the plume.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1.5.3</td>
<td>Effective</td>
<td>Effective release height (m), i.e. the height above the</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ground at which the plume centre line becomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>essentially level and in buoyancy equilibrium with the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>environment (commonly referred to as &quot;effective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>release height&quot;, &quot;effective stack height&quot; or &quot;effective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>plume height&quot;).</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3.1.1.6</td>
<td>HeatEmission</td>
<td>Contains information on emission of heat</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1.1.6.1</td>
<td>SignificantEmissionOfHeat</td>
<td>Indicates whether the release is accompanied by a</td>
<td>-</td>
<td>-</td>
<td>{ Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>significant emission of heat.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1.6.2</td>
<td>HeatEmissionRate</td>
<td>Rate of heat emission (MW).</td>
<td>-</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
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<tr>
<td>3.1.1.6.3</td>
<td>AreaOfHeatEmission</td>
<td>Area of heat emission (m2).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
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<tr>
<td>3.1.1.7</td>
<td>TypeOfRelease</td>
<td>Form of nuclides released.</td>
<td>-</td>
<td>-</td>
<td>{ Gaseous</td>
<td>Particulate</td>
</tr>
<tr>
<td>3.1.1.8</td>
<td>NuclideReleases</td>
<td>Contains information on the amount of radioactivity</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1.1.8.1</td>
<td>NuclideRelease[]</td>
<td>released in the release phase, provided by nuclide, list</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>or combination of nuclides.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1.8.1.1</td>
<td>Nuclide</td>
<td>A nuclide.</td>
<td>R*</td>
<td>-</td>
<td>Nuclide Symbol</td>
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<td>3.1.1.8.1.2</td>
<td>NuclideList</td>
<td>A list of nuclides.</td>
<td>R*</td>
<td>-</td>
<td>List of Nuclide Symbols</td>
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</tr>
<tr>
<td>3.1.1.8.1.3</td>
<td>NuclideCombination</td>
<td>A nuclide combination.</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.1.1.8.1.4</td>
<td>NuclideDescription</td>
<td>A nuclide / nuclide combination. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>3.1.1.8.1.5</td>
<td>Activity</td>
<td>The amount of activity released (Bq).</td>
<td>R</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>3.1.1.8.1.6</td>
<td>MethodOfDetermination</td>
<td>Method of determining the amount of activity</td>
<td>R</td>
<td>-</td>
<td>{ Measurement</td>
<td>Other }</td>
</tr>
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<td>MethodOfDeterminationDescription</td>
<td>Method of determining the amount of activity</td>
<td>-</td>
<td>-</td>
<td>Text</td>
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<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req’d</td>
<td>Mult</td>
<td>Type</td>
<td>Note</td>
</tr>
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<td>------</td>
<td>--------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>3.1.1.9</td>
<td>RelativeIodineFractions</td>
<td>Contains information on the relative iodine fractions in the release.</td>
<td></td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1.1.9.1</td>
<td>Elementary</td>
<td>Relative iodine fraction for elementary iodine (%).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>3.1.1.9.2</td>
<td>Organic</td>
<td>Relative iodine fraction for organically bound iodine (%).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>3.1.1.9.3</td>
<td>Aerosol</td>
<td>Relative iodine fraction for iodine in aerosol form (%).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>3.1.1.10</td>
<td>ChemicalHealthEffects</td>
<td>Indicates whether the released material is chemically toxic.</td>
<td>-</td>
<td>-</td>
<td>{ Yes</td>
<td>No</td>
</tr>
<tr>
<td>3.1.1.11</td>
<td>PlumeCharacteristics</td>
<td>Contains information on actual/observed or projected plume characteristics, e.g. transport speed and direction.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.1.1.11.1</td>
<td>TransportSpeed</td>
<td>Transport speed of the plume, near release point (m/s).</td>
<td></td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>3.1.1.11.2</td>
<td>TransportDirection</td>
<td>Transport direction of the plume, near release point degrees from North.</td>
<td></td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>3.1.1.12</td>
<td>Description</td>
<td>Additional free text information relating to this release phase.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>

4 | ReleaseToWater                  | Contains information on specific releases to water.                         |       | -    | Container          |                                           |

4.1 | ReleasePhases                   | Contains information on a release to water.                                 | R     | -    | Container          |                                           |

4.1.1 | ReleasePhase[]                  | Contains information on a release to water.                                 | R     | M    | Container          |                                           |

4.1.1.1 | Occurrence                      | Indicates whether the release has actually occurred or is projected to occur. | R     | -    | { Actual | Projected | Projected - Likely to Occur | Projected - Unlikely to Occur | Projected - Certain to Occur } |                                           |

4.1.1.2 | TimeOfRelease                   | Start and end time of the release (actual or projected).                     |       | -    | Container          |                                           |

4.1.1.2.1 | StartTime                       | Start time of the release (actual or projected).                            |       | -    | Date/Time String   |                                           |

4.1.1.2.2 | EndTime                        | End time of the release (actual or projected).                              |       | -    | Date/Time String   |                                           |

4.1.1.3 | AffectedWaterBody              | Name of water body into which the release occurs.                          | R     | -    | Text               |                                           |

4.1.1.4 | NuclideReleases                | Contains information on the amount of radioactivity released in the release phase, provided by nuclide, list or combination of nuclides. | -     | -    | Container          |                                           |

4.1.1.4.1 | NuclideRelease[]               | Contains information on the amount of radioactivity released in the release phase for a specified nuclide or list or combination of nuclides. | R     | M    | Container          |                                           |

4.1.1.4.1.1 | Nuclide                        | A nuclide.                                                                  | R*    | -    | Nuclide Symbol     |                                           |
<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1.1.4.1.2</td>
<td>NuclideList</td>
<td>A list of nuclides.</td>
<td>R*</td>
<td>-</td>
<td>-</td>
<td>List of Nuclide Symbols</td>
</tr>
<tr>
<td>4.1.1.4.1.3</td>
<td>NuclideCombination</td>
<td>A nuclide combination.</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>4.1.1.4.1.4</td>
<td>NuclideDescription</td>
<td>A nuclide / nuclide combination. (free text)</td>
<td>R*</td>
<td>-</td>
<td>-</td>
<td>Text</td>
</tr>
<tr>
<td>4.1.1.4.1.5</td>
<td>Activity</td>
<td>The amount of activity released (Bq).</td>
<td>R</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>4.1.1.4.1.6</td>
<td>MethodOfDetermination</td>
<td>Method of determining the amount of activity released.</td>
<td>R</td>
<td>-</td>
<td>{ Measurement</td>
<td>Other }</td>
</tr>
<tr>
<td>4.1.1.4.1.7</td>
<td>MethodOfDeterminationDescription</td>
<td>Method of determining the amount of activity released. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>4.1.1.5</td>
<td>ChemicalHealthEffects</td>
<td>Indicates whether the released material is chemically toxic.</td>
<td>-</td>
<td>-</td>
<td>{ Yes</td>
<td>No</td>
</tr>
<tr>
<td>4.1.1.6</td>
<td>Description</td>
<td>Additional free text information relating to this release phase.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>
### 3.5 The Meteorology section

A full listing of the elements of the Meteorology section is provided in the table below.

Table 5 Elements of the Meteorology section

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>MeteoRecord[]</td>
<td>Contains meteorological information and parameters describing the weather at a specified location during a specified period of time, either actual or forecasted.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.1 Type</td>
<td>Indicates whether the meteorological information represents measured/observed, projected or forecasted weather.</td>
<td>-</td>
<td>-</td>
<td>{ Observation</td>
<td>Projection</td>
</tr>
<tr>
<td></td>
<td>2.2 Location</td>
<td>Location for which weather is described.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td>For the structure of this element, see Locations section.</td>
</tr>
<tr>
<td></td>
<td>2.3 ValidForPeriod</td>
<td>The period of time for which weather is described.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3.1 StartTime</td>
<td>Start time of period.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3.2 EndTime</td>
<td>End time of period.</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>WeatherCode</td>
<td>Weather code (WMO Code 4561).</td>
<td>-</td>
<td>-</td>
<td>Integer Number</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Temperature</td>
<td>Temperature (Kelvin).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>DewPointTemperature</td>
<td>Dew point temperature (Kelvin).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>WindSpeed</td>
<td>Wind speed (m/s).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>@Fluctuation</td>
<td>Fluctuation in wind speed (m/s).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>WindDirection</td>
<td>Wind direction (degrees from North). The direction the wind is blowing from.</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>8.2</td>
<td>@Fluctuation</td>
<td>Fluctuation in wind direction (degrees).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Pressure</td>
<td>Atmospheric pressure, measured, not normalised to sea level (hPa).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>RelativeHumidity</td>
<td>Relative humidity (%).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>CloudCover</td>
<td>Cloud cover (oktas).</td>
<td>-</td>
<td>-</td>
<td>Integer Number</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>SolarRadiation</td>
<td>Solar radiation intensity (W/m2).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>PasquillStabilityClass</td>
<td>Pasquill stability class (A-G).</td>
<td>-</td>
<td>-</td>
<td>Character</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>InversionLayerHeight</td>
<td>Inversion layer height (m).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>InversionHeightRange</td>
<td>Inversion layer height range.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>15.1</td>
<td>LowerBoundary</td>
<td>Lower boundary of inversion layer height (m).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>15.2</td>
<td>UpperBoundary</td>
<td>Upper boundary of inversion layer height (m).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req'd</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>2.16</td>
<td>Precipitation</td>
<td>Contains information on precipitation.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.16.1</td>
<td>Occurrence</td>
<td>Flag for precipitation / no precipitation.</td>
<td>R</td>
<td>-</td>
<td>{ Yes</td>
<td>No</td>
</tr>
<tr>
<td>2.16.2</td>
<td>Form</td>
<td>Form of precipitation (e.g. rain, snow, ...).</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.16.3</td>
<td>FormDescription</td>
<td>Form of precipitation. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.16.4</td>
<td>Amount</td>
<td>Amount of precipitation fallen during the indicated period (mm).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.16.5</td>
<td>Intensity</td>
<td>Amount of precipitation per hour (mm/h).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.16.6</td>
<td>SnowInformation</td>
<td>Contains information on snow.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.16.6.1</td>
<td>Amount</td>
<td>Amount of fallen snow during the indicated period, given as water equivalent (mm).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.17</td>
<td>WeatherDescription</td>
<td>Free text description of actual/forecasted weather.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>
### 3.6 The Consequences section

A full listing of the elements of the Consequences section is provided in the table below.

#### Table 6 Elements of the Consequences section

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>HealthIssues</td>
<td>Free text description of any health issues caused by an event.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>EnvironmentalIssues</td>
<td>Free text description of any environmental issues caused by an event.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>FoodstuffIssues</td>
<td>Free text description of any foodstuff related issues caused by an event.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>OtherIssues</td>
<td>Free text description of issues (other than health, environmental and foodstuff related issues) caused by an event.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>AreasAffected</td>
<td>Contains a list of areas that are affected, or likely to be affected, along with a description of the (radiological) effect.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>AreaAffected[]</td>
<td>Contains information about an area that is affected, or likely to be affected.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.1.1</td>
<td>Occurrence</td>
<td>Indicates whether the information describes actual effects or is a projection.</td>
<td>-</td>
<td>-</td>
<td>{ Actual</td>
<td>Actual - Confirmed</td>
</tr>
<tr>
<td>6.1.2</td>
<td>Area</td>
<td>Contains information on the area which is affected.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.1.2.1</td>
<td>Description</td>
<td>A free text description of the area.</td>
<td>R</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>6.1.3</td>
<td>Effect</td>
<td>Contains information of the effect affecting the area.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>6.1.3.1</td>
<td>TypeOfEffect</td>
<td>The type of effect.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>6.1.3.2</td>
<td>Description</td>
<td>Free text description of the effect.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>NumbersOfCasualties</td>
<td>Contains information on the numbers of casualties (exposed, hospitalised, wounded or dead) in an event. The numbers may be tabulated and broken down by type of group of affected people (e.g. public, emergency services).</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req'd</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>--------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>7.1</td>
<td>NumberOfCasualties[]</td>
<td>Contains information on a number of casualties.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>7.1.1</td>
<td>CasualtyType</td>
<td>The type of casualty for which a number is provided.</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>7.1.2</td>
<td>CasualtyTypeDescription</td>
<td>The type of casualty for which a number is provided.</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>7.1.3</td>
<td>MemberOfGroup</td>
<td>The type of group of people for which the number is provided. If the element is omitted, the provided number is understood to be the total number, irrespective of group.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>7.1.4</td>
<td>MemberOfGroupDescription</td>
<td>The type of group of people for which the number is provided. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>7.1.5</td>
<td>Number</td>
<td>The number of casualties in the indicated type, either the total number, or the sub-total for the group specified.</td>
<td>R</td>
<td>-</td>
<td>Integer Number</td>
<td></td>
</tr>
<tr>
<td>7.1.6</td>
<td>MethodOfDetermination</td>
<td>Method used for determining the number of casualties.</td>
<td>-</td>
<td>-</td>
<td>{ Count</td>
<td>Estimation</td>
</tr>
<tr>
<td>7.1.7</td>
<td>MethodOfDeterminationDescription</td>
<td>Method used for determining the number of casualties. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
</tbody>
</table>
### 3.7 The Response Actions section

A full listing of the elements of the Response Actions section is provided in the table below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ProtectiveActions</td>
<td>Contains information on protective actions taken/planned.</td>
<td></td>
<td></td>
<td>-</td>
<td>Container</td>
</tr>
<tr>
<td>2.1</td>
<td>ProtectiveActionsTakenOrPlanned</td>
<td>Indicates whether protective actions have been taken or are planned.</td>
<td>R</td>
<td>-</td>
<td>{ Yes</td>
<td>No }</td>
</tr>
<tr>
<td>2.2</td>
<td>ProtectiveAction[]</td>
<td>Contains information on a specific type of protective action taken or planned.</td>
<td></td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.2.1</td>
<td>TypeOfAction</td>
<td>Type of protective action.</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.2.2</td>
<td>TypeOfActionDescription</td>
<td>Type of protective action. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2.3</td>
<td>Status</td>
<td>Status of the protective action.</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.2.4</td>
<td>StartTime</td>
<td>Date and time protective action is ordered.</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.2.5</td>
<td>EndTime</td>
<td>Date and time protective action is cancelled/lifted.</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.2.6</td>
<td>AreaSector</td>
<td>Geographical sector within which the protective action is applied.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.2.6.1</td>
<td>FromAngle</td>
<td>Start angle of sector (degrees from North).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.2.6.2</td>
<td>TillAngle</td>
<td>Stop angle of sector (degrees from North).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.2.6.3</td>
<td>InnerRadius</td>
<td>Inner radius of sector (m).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.2.6.4</td>
<td>OuterRadius</td>
<td>Outer radius of sector (m).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.2.7</td>
<td>AreaDescription</td>
<td>Free text description of the area in which the protective action is applied.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.2.8</td>
<td>FurthestDistance</td>
<td>Furthest distance from the event location to which the protective action is applied (m).</td>
<td>-</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.2.9</td>
<td>CountriesAffected</td>
<td>List of countries affected by the protective action (if different from the country ordering the protective action).</td>
<td>-</td>
<td>-</td>
<td>List of Country Codes (ISO 2-Alpha)</td>
<td></td>
</tr>
<tr>
<td>2.2.10</td>
<td>Description</td>
<td>Free text description of the protective action.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>DescriptionOfActions</td>
<td>Free text description of actions taken/planned in response to an event.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>
3.8 The Measurements section
A full listing of the elements of the Measurements section is provided in the table below. A description of the two sub-elements Sample and Dose Rate is provided in the subsections below.

Table 8 Elements of the Measurements section

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sample[]</td>
<td>Contains a data set with measured concentration levels of different nuclides, or combination of nuclides, in a specific type of substance (e.g. air, food, grass) sampled in a specific geographic location/area and point/period in time.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>DoseRate[]</td>
<td>Contains a data set with environmental dose rate levels measured at different geographical locations at a specific point/period in time.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
</tbody>
</table>

3.8.1 The Sample element
A full listing of the elements of the Sample element is provided in the table below.

Table 9 Elements of the Sample element

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>SampleType</td>
<td>Type of substance sampled. (code list)</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.2</td>
<td>SampleTypeDescription</td>
<td>Type of substance sampled. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>SamplingPeriod</td>
<td>Sampling period/time.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.3.1</td>
<td>StartTime</td>
<td>Sampling start time.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.3.2</td>
<td>EndTime</td>
<td>Sampling end time.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Location</td>
<td>Sampling location/area, or reference location from which distance and direction (offset) to this location is provided.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td>For the structure of this element, see Locations section.</td>
</tr>
<tr>
<td>2.5</td>
<td>LocationOffset</td>
<td>Sampling location, given by distance and direction (offset) from given reference location.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.5.1</td>
<td>Distance</td>
<td>Distance to location relative to reference location.</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.5.2</td>
<td>Direction</td>
<td>Direction to location relative to reference location. The direction is measured in degrees from North (0 degrees).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>ValueType</td>
<td>The type of value reported (e.g. discrete single measurement (default), or geographical or/and temporal min, max, average value measured in the indicated location/area and/or period of time...).</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.7</td>
<td>SamplingDepth</td>
<td>Sampling depth from surface (e.g. for soil samples).</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req'd</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>---------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>2.7.1</td>
<td>MaxDepth</td>
<td>Maximum sampling depth from surface (m).</td>
<td></td>
<td></td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.7.2</td>
<td>MinDepth</td>
<td>Minimum sampling depth from surface (m).</td>
<td></td>
<td></td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>SurfaceTypeDescription</td>
<td>Description of type of surface from which sample was taken.</td>
<td></td>
<td></td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>Volume</td>
<td>Sampling volume (e.g. for air samples) (m3).</td>
<td></td>
<td></td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>2.10</td>
<td>SampleTreatment</td>
<td>Type of treatment undertaken on the sample, prior to measurement.</td>
<td></td>
<td></td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.11</td>
<td>SampleTreatmentDescription</td>
<td>Type of treatment undertaken on the sample, prior to measurement.</td>
<td></td>
<td></td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.12</td>
<td>Description</td>
<td>Additional free text information relating to this data set.</td>
<td></td>
<td></td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.13</td>
<td>Measurements</td>
<td>Contains measured concentration values and associated information</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.13.1</td>
<td>Measurement[ ]</td>
<td>Contains a measured concentration value and associated information</td>
<td>R*</td>
<td>M*</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.13.1.1</td>
<td>Nuclide</td>
<td>A nuclide.</td>
<td></td>
<td></td>
<td>Nuclide Symbol</td>
<td></td>
</tr>
<tr>
<td>2.13.1.2</td>
<td>NuclideList</td>
<td>A list of nuclides.</td>
<td></td>
<td></td>
<td>List of Nuclide Symbols</td>
<td></td>
</tr>
<tr>
<td>2.13.1.3</td>
<td>NuclideCombination</td>
<td>A nuclide combination.</td>
<td></td>
<td></td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.13.1.4</td>
<td>NuclideDescription</td>
<td>A nuclide / nuclide combination. (free text)</td>
<td>R*</td>
<td></td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.13.1.5</td>
<td>Value</td>
<td>Measurement value.</td>
<td>R</td>
<td></td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>2.13.1.5.1</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or</td>
<td></td>
<td></td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>2.13.1.5.2</td>
<td>@Unit</td>
<td>Unit of measurement value.</td>
<td>R</td>
<td></td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.13.1.6</td>
<td>Uncertainty</td>
<td>Uncertainty of the measurement value.</td>
<td></td>
<td></td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>2.13.1.6.1</td>
<td>@Type</td>
<td>The type of the uncertainty value given.</td>
<td></td>
<td></td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.13.1.6.2</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or</td>
<td></td>
<td></td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>2.13.1.6.3</td>
<td>@Unit</td>
<td>Unit of uncertainty value.</td>
<td>R</td>
<td></td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.13.1.7</td>
<td>Timebase</td>
<td>Timebase of measurement (smallest unit of measuring time period).</td>
<td></td>
<td></td>
<td>Duration String</td>
<td></td>
</tr>
<tr>
<td>2.13.1.8</td>
<td>Background</td>
<td>Contains information on reference/background levels at same location.</td>
<td></td>
<td></td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.13.1.8.1</td>
<td>Value</td>
<td>Background value (with appropriate unit).</td>
<td>R</td>
<td></td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>2.13.1.8.1.1</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or</td>
<td></td>
<td></td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>2.13.1.8.1.2</td>
<td>@Unit</td>
<td>Unit of measurement value.</td>
<td>R</td>
<td></td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.13.1.8.2</td>
<td>Uncertainty</td>
<td>Uncertainty of the background value.</td>
<td></td>
<td></td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>2.13.1.8.2.1</td>
<td>@Type</td>
<td>The type of the uncertainty value given.</td>
<td></td>
<td></td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req’d</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>---------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>2.13.1.8.2.2</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or greater than (GT) the reported value.</td>
<td>-</td>
<td>-</td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>2.13.1.8.2.3</td>
<td>@Unit</td>
<td>Unit of uncertainty value.</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.13.1.8.3</td>
<td>Timebase</td>
<td>Timebase of measurement (smallest unit of measuring time period).</td>
<td>-</td>
<td>-</td>
<td>Duration String</td>
<td></td>
</tr>
<tr>
<td>2.13.1.8.4</td>
<td>Method</td>
<td>Description of the method used to determine the background value.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.13.1.9</td>
<td>MeasuringPeriod</td>
<td>Start and end time of the measurement.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.13.1.9.1</td>
<td>StartTime</td>
<td>Measuring start time.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.13.1.9.2</td>
<td>EndTime</td>
<td>Measuring end time.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.13.1.10</td>
<td>ReferenceDateAndTime</td>
<td>Reference date and time of the reported measurement value.</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.13.1.11</td>
<td>ApparatusType</td>
<td>Type of apparatus with which measurement has been performed.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.13.1.12</td>
<td>ApparatusTypeDescription</td>
<td>Type of apparatus with which measurement has been performed.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.13.1.13</td>
<td>Validated</td>
<td>Optional value indicating whether the measurement value has been validated or not.</td>
<td>-</td>
<td>-</td>
<td>{ Not Validated</td>
<td>Validated</td>
</tr>
<tr>
<td>2.13.1.14</td>
<td>Laboratory</td>
<td>Name / type of laboratory at which the measurements were made.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.13.1.15</td>
<td>Description</td>
<td>Additional free text information relating to this measurement or measurement value.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>

### 3.8.2 The Dose Rate element

A full listing of the elements of the Dose Rate element is provided in the table below.

**Table 10 Elements of the Dose Rate element**

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>DoseRateType</td>
<td>Type of dose rate reported in this data set (e.g. gamma, neutron etc).</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.2</td>
<td>MeasuringPeriod</td>
<td>Measuring period, start and end time.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.2.1</td>
<td>StartTime</td>
<td>Measuring start time.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>3.2.2</td>
<td>EndTime</td>
<td>Measuring end time.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>ApparatusType</td>
<td>Type of apparatus with which measurement has been performed.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.4</td>
<td>ApparatusTypeDescription</td>
<td>Type of apparatus with which measurement has been performed. (free text)</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>Description</td>
<td>Additional free text information relating to the contained dose rate data set.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req’d</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>---------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3.6</td>
<td>Measurements</td>
<td>Contains dose rate measurement values and associated information for different measurement locations, at the measuring time/period given in the containing data set.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.6.1</td>
<td>Measurement[]</td>
<td>Contains a dose rate measurement value and associated information for a specific measurement location, at the measuring time/period given in the containing data set.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.6.1.1</td>
<td>Location</td>
<td>Location of measurement, or reference location from which distance and direction (offset) to this location is provided.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td>For the structure of this element, see Locations section.</td>
</tr>
<tr>
<td>3.6.1.2</td>
<td>LocationOffset</td>
<td>Location of measurement, given by distance and direction (offset) from reference location.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.6.1.2.1</td>
<td>Distance</td>
<td>Distance to location relative to reference location.</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>3.6.1.2.2</td>
<td>Direction</td>
<td>Direction to location relative to reference location. The direction is measured in degrees from North (0 degrees).</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>3.6.1.3</td>
<td>Value</td>
<td>Measurement value.</td>
<td>R</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>3.6.1.3.1</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or greater than (GT) the reported value.</td>
<td>-</td>
<td>-</td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>3.6.1.3.2</td>
<td>@Unit</td>
<td>Unit of measurement value.</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.6.1.4</td>
<td>Uncertainty</td>
<td>Uncertainty of the measurement value.</td>
<td>-</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>3.6.1.4.1</td>
<td>@Type</td>
<td>The type of the uncertainty value given.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.6.1.4.2</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or greater than (GT) the reported value.</td>
<td>-</td>
<td>-</td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>3.6.1.4.3</td>
<td>@Unit</td>
<td>Unit of uncertainty value.</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.6.1.5</td>
<td>Timebase</td>
<td>Timebase of measurement (smallest unit of measuring time period).</td>
<td>-</td>
<td>-</td>
<td>Duration String</td>
<td></td>
</tr>
<tr>
<td>3.6.1.6</td>
<td>Background</td>
<td>Contains information on reference/background levels at same location.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3.6.1.6.1</td>
<td>Value</td>
<td>Background value (with appropriate unit).</td>
<td>R</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>3.6.1.6.1.1</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or greater than (GT) the reported value.</td>
<td>-</td>
<td>-</td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>3.6.1.6.1.2</td>
<td>@Unit</td>
<td>Unit of measurement value.</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.6.1.6.2</td>
<td>Uncertainty</td>
<td>Uncertainty of the background value.</td>
<td>-</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>3.6.1.6.2.1</td>
<td>@Type</td>
<td>The type of the uncertainty value given.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.6.1.6.2.2</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or greater than (GT) the reported value.</td>
<td>-</td>
<td>-</td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>3.6.1.6.2.3</td>
<td>@Unit</td>
<td>Unit of uncertainty value.</td>
<td>R</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>3.6.1.6.3</td>
<td>Timebase</td>
<td>Timebase of measurement (smallest unit of measuring time period).</td>
<td>-</td>
<td>-</td>
<td>Duration String</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req’d</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>3.6.1.6.4</td>
<td>Method</td>
<td>Description of the method used to determine the background value.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td>-</td>
</tr>
<tr>
<td>3.6.1.7</td>
<td>Validated</td>
<td>Optional value indicating whether the measurement value has been validated or not.</td>
<td>-</td>
<td>-</td>
<td>{ Not Validated</td>
<td>Validated</td>
</tr>
<tr>
<td>3.6.1.8</td>
<td>Description</td>
<td>Additional free text information relating to this measurement or measurement value.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td>-</td>
</tr>
</tbody>
</table>
3.9 The Medical Information section
A full listing of the elements of the Medical Information section is provided in the table below.

Table 11 Elements of the Medical Information section

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>PersonsDiagnosed</td>
<td>Contains a list with information on the medical assessments of examined persons.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>PersonDiagnosed[]</td>
<td>Contains information on the medical assessment of one examined person.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.1</td>
<td>Identity</td>
<td>Contains information on the identity of the examined person.</td>
<td>R</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.1.1</td>
<td>Code</td>
<td>Code used to identify/refer to the examined person. (The code need not reveal the person's actual identity.)</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.1.2</td>
<td>Name</td>
<td>The person's name (optional).</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.1.3</td>
<td>Description</td>
<td>Additional free text information relating to the identity of the examined person.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.1.2</td>
<td>HealthEffectsDiagnosed</td>
<td>Contains a list of health effects diagnosed on the examined person.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.2.1</td>
<td>HealthEffectDiagnosed[]</td>
<td>Contains information on the diagnosis of a particular health effect.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.2.1.1</td>
<td>TypeOfHealthEffect</td>
<td>Type of health effect diagnosed.</td>
<td>R*</td>
<td>-</td>
<td>( ... )</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.1.2.1.2</td>
<td>TypeOfHealthEffectDescription</td>
<td>Type of health effect diagnosed. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.2.1.3</td>
<td>DiagnosticResult</td>
<td>Diagnostic result (Negative, Possible etc).</td>
<td>R</td>
<td>-</td>
<td>( ... )</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.1.3</td>
<td>HealthConsequencesPrognosed</td>
<td>Contains a list of health consequences prognosed on the examined person.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.3.1</td>
<td>HealthConsequencePrognosed[]</td>
<td>Contains information on the prognosis of a particular health consequence.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.3.1.1</td>
<td>TypeOfHealthConsequence</td>
<td>Type of health consequence.</td>
<td>R*</td>
<td>-</td>
<td>( ... )</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.1.3.1.2</td>
<td>TypeOfHealthConsequenceDescription</td>
<td>Type of health consequence. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.3.1.3</td>
<td>PrognosedOccurrence</td>
<td>Indicates whether the type of health consequence is prognosed to occur.</td>
<td>R</td>
<td>-</td>
<td>( ... )</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.1.3.1.4</td>
<td>Description</td>
<td>Additional free text information relating to the prognosis of this type of health consequence.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Element name</td>
<td>Description</td>
<td>Req'd</td>
<td>Mult.</td>
<td>Type</td>
<td>Note</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------------</td>
<td>------</td>
</tr>
<tr>
<td>2.1.4</td>
<td>DoseAssessments</td>
<td>Contains information on dose assessments performed on the examined person.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.4.1</td>
<td>AssessedDose[]</td>
<td>Contains information on the assessment of a particular type of dose (whole body, specific organ or tissue) performed on the examined person.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.4.1.1</td>
<td>TypeOfDose</td>
<td>The type of dose assessed (e.g. whole body, or dose to a specific organ or tissue).</td>
<td>R*</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.1.4.1.2</td>
<td>TypeOfDoseDescription</td>
<td>The type of dose assessed. (free text)</td>
<td>R*</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.4.1.3</td>
<td>DoseValue</td>
<td>The assessed dose (Sv or Gy).</td>
<td>R</td>
<td>-</td>
<td>Floating Point Number</td>
<td></td>
</tr>
<tr>
<td>2.1.4.1.3.1</td>
<td>@Constraint</td>
<td>Attribute for indicating whether the actual value is less than (LT) or greater than (GT) the reported value.</td>
<td>-</td>
<td>-</td>
<td>{ GT</td>
<td>LT }</td>
</tr>
<tr>
<td>2.1.4.1.3.2</td>
<td>@Unit</td>
<td>Unit (Sv or Gy).</td>
<td>R</td>
<td>-</td>
<td>{ Sv</td>
<td>Gy }</td>
</tr>
<tr>
<td>2.1.4.1.4</td>
<td>DoseAssessmentMethod</td>
<td>Free text description of the dose assessment method used.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.4.1.5</td>
<td>Description</td>
<td>Additional free text information relating to the assessment of this type of dose.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.1.4.2</td>
<td>Description</td>
<td>Additional free text information relating to the dose assessments performed on the person.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.1.5</td>
<td>Description</td>
<td>Additional free text information relating to the medical assessment of the examined person.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>
### 3.10 The Media Information section

A full listing of all the elements of the Media Information section is provided in the table below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>@ValidAt</td>
<td>Date and time at which the information contained in this report section was valid.</td>
<td>R</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>PublicInformationContacts</td>
<td>Contains contact information that may be used for coordination of press releases and public communication.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>PersonContactInfo[]</td>
<td>Contains contact details of a person responsible for coordination of press releases and public communication.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1.1</td>
<td>Name</td>
<td>Name of person/contact.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.2</td>
<td>UserID</td>
<td>An identifier of the person.</td>
<td>-</td>
<td>-</td>
<td>Email Address String</td>
<td></td>
</tr>
<tr>
<td>2.1.3</td>
<td>Position</td>
<td>The position or function of the person in his/her organisation.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.4</td>
<td>OrganisationID</td>
<td>A reference to the identifier of the organisation to which the person belongs. The contact details of the organisation may or may not be included in the report.</td>
<td>-</td>
<td>-</td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>2.1.5</td>
<td>PhoneNumber</td>
<td>Phone number of the contact.</td>
<td>-</td>
<td>-</td>
<td>Phone Number String</td>
<td></td>
</tr>
<tr>
<td>2.1.6</td>
<td>FaxNumber</td>
<td>Fax number of the contact.</td>
<td>-</td>
<td>-</td>
<td>Phone Number String</td>
<td></td>
</tr>
<tr>
<td>2.1.7</td>
<td>EmailAddress</td>
<td>Email address of the contact.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.1.8</td>
<td>Description</td>
<td>Additional contact information.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>OrganisationContactInfo[]</td>
<td>Contains contact details of the organisation with which the contact person(s) listed are affiliated.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.2.1</td>
<td>Name</td>
<td>The name of the organisation.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2.2</td>
<td>OrganisationID</td>
<td>The identification string of the organisation.</td>
<td>R</td>
<td>-</td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>2.2.3</td>
<td>Country</td>
<td>The country to which the organisation belongs.</td>
<td>R</td>
<td>-</td>
<td>Country Code (ISO 2-Alpha)</td>
<td></td>
</tr>
<tr>
<td>2.2.4</td>
<td>WebAddress</td>
<td>Address to the public website of the organisation.</td>
<td>-</td>
<td>-</td>
<td>URL String</td>
<td></td>
</tr>
<tr>
<td>2.2.5</td>
<td>Address[]</td>
<td>Visiting and/or postal address of the organisation.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.2.5.1</td>
<td>@Type</td>
<td>Indicates the type of the address (visiting or mailing address).</td>
<td>R</td>
<td>-</td>
<td>{ Visiting Address</td>
<td>Postal Address }</td>
</tr>
<tr>
<td>2.2.5.2</td>
<td>Postbox</td>
<td>Postbox number.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2.5.3</td>
<td>Street</td>
<td>Street address.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2.5.4</td>
<td>PostalCode</td>
<td>Postal code / ZIP.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2.5.5</td>
<td>Municipality</td>
<td>Municipality name.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2.5.6</td>
<td>Country</td>
<td>Country.</td>
<td>R</td>
<td>-</td>
<td>Country Code (ISO 2-Alpha)</td>
<td></td>
</tr>
<tr>
<td>2.2.6</td>
<td>PhoneNumber</td>
<td>Phone number of the contact.</td>
<td>-</td>
<td>-</td>
<td>Phone Number String</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Field</td>
<td>Description</td>
<td>Type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2.7</td>
<td>FaxNumber</td>
<td>Fax number of the contact.</td>
<td>Phone Number String</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2.8</td>
<td>EmailAddress</td>
<td>Email address of the contact.</td>
<td>Text</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2.9</td>
<td>Description</td>
<td>Additional contact information.</td>
<td>HTML</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>PublicWebsiteURL</td>
<td>Web address of public web site where press releases and public information is made available.</td>
<td>URL String</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3.11 The Locations section

A full listing of the elements of the Locations section is provided in the table below.

#### Table 13 Elements of the Locations section

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Location[]</td>
<td>Contains information describing a geographical location.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Name</td>
<td>Name of location.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>GeographicCoordinates</td>
<td>Geographical co-ordinates and height of location.</td>
<td>-</td>
<td>-</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>1.2.1</td>
<td>Latitude</td>
<td>Latitude of location (WGS84). Positive for northern hemisphere.</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>1.2.2</td>
<td>Longitude</td>
<td>Longitude of location (WGS84). Positive east of Greenwich meridian.</td>
<td>R</td>
<td>-</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>1.2.3</td>
<td>Height[]</td>
<td>Height of location (m), above ground or sea-level (or both).</td>
<td>-</td>
<td>M</td>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>1.2.3.1</td>
<td>@Above</td>
<td>Indicates whether the specified height is measured above land or above sea.</td>
<td>R</td>
<td>-</td>
<td>( Sea</td>
<td>Land )</td>
</tr>
<tr>
<td>1.3</td>
<td>Municipality</td>
<td>Name of municipality.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>AdministrativeUnit</td>
<td>Name of administrative unit to which municipality belongs.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>AccuracyType</td>
<td>Indicates whether the location refers to a region or an exact location.</td>
<td>-</td>
<td>-</td>
<td>{ Reference of Region</td>
<td>Exact Location }</td>
</tr>
<tr>
<td>1.7</td>
<td>Description</td>
<td>Free text description of location.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>@id</td>
<td>An identifier for referring to this Location from within other parts of the report.</td>
<td>R</td>
<td>-</td>
<td>String</td>
<td></td>
</tr>
</tbody>
</table>
### 3.12 The Requests section

A listing of all the elements of the Requests section is provided in the table below.

**Table 14 Elements of the Requests section**

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req'd</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Request[]</td>
<td>Contains information on a request.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>RequestUUID</td>
<td>Unique identifier of this request.</td>
<td>R</td>
<td>-</td>
<td>UUIDv4 String</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>TypeOfRequest</td>
<td>Type of request.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>1.3</td>
<td>RequestSubject</td>
<td>Subject of request.</td>
<td>R</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>*[]</td>
<td>Additional meta information associated with the request.</td>
<td>-</td>
<td>M</td>
<td>Any Extension Element</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>RequestText</td>
<td>Body text of the request.</td>
<td>R</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Response[]</td>
<td>Contains information on a response to a request.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>ResponseUUID</td>
<td>Unique identifier of this response.</td>
<td>R</td>
<td>-</td>
<td>UUIDv4 String</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>RequestReference[]</td>
<td>Contains information on the request to which this response relates.</td>
<td>R</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2.2.1</td>
<td>RequestingOrganisation</td>
<td>Identifier of organisation originating the request.</td>
<td>-</td>
<td>-</td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>2.2.2</td>
<td>DateAndTimeOfRequest</td>
<td>Date and time of the request.</td>
<td>-</td>
<td>-</td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.2.3</td>
<td>RequestUUID</td>
<td>Reference to the unique identifier of the request.</td>
<td>-</td>
<td>-</td>
<td>UUIDv4 String</td>
<td></td>
</tr>
<tr>
<td>2.2.4</td>
<td>TypeOfRequest</td>
<td>Type of request.</td>
<td>-</td>
<td>-</td>
<td>{ ... }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.2.5</td>
<td>RequestSubject</td>
<td>Subject of request.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2.6</td>
<td>*[]</td>
<td>Additional meta information associated with the request.</td>
<td>-</td>
<td>M</td>
<td>Any Extension Element</td>
<td></td>
</tr>
<tr>
<td>2.2.7</td>
<td>RequestText</td>
<td>Body text of the request.</td>
<td>-</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>*[]</td>
<td>Additional meta information associated with the response.</td>
<td>-</td>
<td>M</td>
<td>Any Extension Element</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>ResponseText</td>
<td>Body text of the response.</td>
<td>R</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>
### 3.13 The Annexes section

A listing of the elements of the Annexes section is provided in the table below. A description of each of the elements is provided in respective subsections below.

**Table 15 Elements of the Annexes section**

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Annotation[]</td>
<td>Contains an annotation, i.e. a free formatted HTML text with additional information to the report.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>FileEnclosure[]</td>
<td>Contains a file attached to the report and associated meta information.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Signature[]</td>
<td>Contains a digital signature over the report.</td>
<td>-</td>
<td>M</td>
<td>Container</td>
<td></td>
</tr>
</tbody>
</table>

### 3.13.1 The Annotation element

A full listing of the elements of the Annotation element in the Annexes section is provided in the table below.

**Table 16 Elements of the Annotation element**

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Title</td>
<td>The annotation title.</td>
<td>-</td>
<td>-</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>*[]</td>
<td>Meta data associated with the annotation.</td>
<td>-</td>
<td>M</td>
<td>Any Extension Element</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Text</td>
<td>The annotation body text.</td>
<td>R</td>
<td>-</td>
<td>HTML</td>
<td></td>
</tr>
</tbody>
</table>
### 3.13.2 The File Enclosure element

A full listing of the elements of the File Enclosure element under the Annexes section is provided in the table below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Element name</th>
<th>Description</th>
<th>Req’d</th>
<th>Mult.</th>
<th>Type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Title</td>
<td>Title of the enclosed file.</td>
<td></td>
<td></td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>InformationCategory[]</td>
<td>Type of information contained in the enclosed file.</td>
<td></td>
<td>M</td>
<td>{ }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.3</td>
<td>InformationCategoryDescription[]</td>
<td>Type of information contained in the enclosed file. (free text)</td>
<td></td>
<td>M</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>AuthorOrganisation</td>
<td>The organisation that authored the enclosed file.</td>
<td></td>
<td></td>
<td>Internet Domain Name String</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Confidentiality</td>
<td>Confidentiality of the enclosed file.</td>
<td></td>
<td></td>
<td>{ }</td>
<td>See Chapter 4.</td>
</tr>
<tr>
<td>2.6</td>
<td>ValidAt</td>
<td>Date and time at which the information contained in the file is/was valid.</td>
<td></td>
<td></td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.7</td>
<td>Language</td>
<td>Language of the content of the enclosed file (see RFC 3066).</td>
<td></td>
<td></td>
<td>Language Code</td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>Description</td>
<td>Free text description of the content of the enclosed file.</td>
<td></td>
<td></td>
<td>HTML</td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>FileName</td>
<td>File name (without path information).</td>
<td></td>
<td></td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.10</td>
<td>FileDateAndTime</td>
<td>File date and time.</td>
<td></td>
<td></td>
<td>Date/Time String</td>
<td></td>
</tr>
<tr>
<td>2.11</td>
<td>MimeType</td>
<td>Mime type of enclosed file. The value should be a valid content-type as specified in RFC2045, paragraph 5.1, excluding the &quot;Content-type&quot; string.</td>
<td>R</td>
<td></td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>2.12</td>
<td>FileSize</td>
<td>Size of enclosed file (bytes).</td>
<td></td>
<td></td>
<td>Long Integer Number</td>
<td></td>
</tr>
<tr>
<td>2.13</td>
<td>FileHash</td>
<td>SHA-1 digest value (fingerprint) of enclosed file, allowing efficient identification of identical copies of the enclosed file.</td>
<td></td>
<td></td>
<td>Hexa-decimal Encoded Binary Data</td>
<td></td>
</tr>
<tr>
<td>2.14</td>
<td>*[]</td>
<td>Additional meta data associated with the file.</td>
<td></td>
<td>M</td>
<td>Any Extension Element</td>
<td></td>
</tr>
<tr>
<td>2.15</td>
<td>EnclosedObject</td>
<td>Base64 encoded file object.</td>
<td></td>
<td></td>
<td>Base64 Encoded Binary Data</td>
<td></td>
</tr>
</tbody>
</table>
3.13.3 The Signature element

The Signature element under the Annexes section allows including a digital signature over the contents of the report. Its structure follows the standard W3C XML Signature definition for embedded signatures, with the restriction that the signature must be calculated over the entire IRIX report document, optionally excluding any other signatures included in this same section of the report.
4  Value lists used in the IRIX format

This chapter contains value lists defined in the IRIX Format and which for space reasons have not been included in chapter 3. A value list defines possible standard values for use with certain elements in the IRIX Format. Each subsection of this chapter corresponds to a section of the IRIX Format and lists value lists used in that section. Note that some value lists are used in more than one section. In these cases, the value list is fully described only at one location, and other locations just point back to that location.

4.1  Lists used in Identification section

4.1.1  Confidentialities
The Confidentialities list contains the possible values that may be used with the Confidentiality element in the Identification section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Addressees Use Only</td>
</tr>
<tr>
<td>For Authority Use Only</td>
</tr>
<tr>
<td>Free for Public Use</td>
</tr>
</tbody>
</table>

4.1.2  Reporting Requirements
The Reporting Requirements list contains standard values for known international reporting requirements which may be used with the Reporting Basis element in the Identifications section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convention on Early Notification of a Nuclear Accident, Article 2</td>
</tr>
<tr>
<td>IAEA Safety Requirement GS-R-2, Notification of “Transnational Emergency”</td>
</tr>
<tr>
<td>EU Council Decision 87/600/EURATOM</td>
</tr>
</tbody>
</table>

4.2  Lists used in Event Information section

4.2.1  Event Types
The Event Types list contains standard values which may be used with the Type of Event element in the Event Information section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear Installation Event</td>
</tr>
<tr>
<td>Missing Dangerous Source</td>
</tr>
<tr>
<td>Discovered Dangerous Source</td>
</tr>
<tr>
<td>Space Object Re-entry</td>
</tr>
<tr>
<td>Elevated Ambient Radiation Levels</td>
</tr>
<tr>
<td>Contamination in Food / Drinking Water</td>
</tr>
<tr>
<td>Contamination in Commodities</td>
</tr>
<tr>
<td>Severe Overexposure</td>
</tr>
<tr>
<td>Transport Event</td>
</tr>
<tr>
<td>Credible Threat</td>
</tr>
<tr>
<td>Malicious Act</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

4.2.2  Object and Activity Types
The Object and Activity Types list contains standard values which may be used with the Type of Object or Activity element in the Event Information section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
4.2.3 Nuclide Combinations
The Nuclide Combinations list contains standard values which may be used with the Nuclide Combination element under the Source Characteristics element in the Event Information section of an IRIX report.

For the list of values, see section 4.7.4.

4.2.4 Reactor Types
The Reactor Types list contains standard values which may be used with the Type of Reactor element in the Event Information section of an IRIX report.

Value | Description
--- | ---
PWR | Pressurised light water moderated and cooled reactor.
BWR | Boiling light water cooled and moderated reactor.
AGR | Advanced gas cooled graphite moderated reactor.
VVER | "Vodo-Vodyanoi Energetichesky Reactor" (Russian) / "Water-Water Energetic Reactor". A reactor model of type PWR (Pressurised light water moderated and cooled reactor).
RBMK | "Reaktor Bolshoy Moshchnosti Kanalnyy" (Russian) / "High Power Channel-type Reactor". A reactor model of type LWGR (Light water cooled graphite moderated reactor).

4.2.5 Emergency Classes
The Emergency Classes list contains standard values which may be used with the Emergency Class element in the Event Information section of an IRIX report. The list is derived from IAEA Safety Standard GS-R-2.

Value | Description
--- | ---
General Emergency | General Emergency
Site Area Emergency | Site Area Emergency
Facility Emergency | Facility Emergency
Alert | Alert

4.3 Lists used in Release Information section

4.3.1 Nuclide Combinations
The Nuclide Combinations list contains standard values which may be used with the Nuclide Combination element in the Release section of an IRIX report.

For the list of values, see section 4.7.4.

4.3.2 Release Routes
The Release Routes list contains standard values which may be used with the Release Route element in the Release section of an IRIX report. The list is derived from IAEA TECDOC-955.

Value | Description
--- | ---
Release from Containment | Release from Containment
Containment By-pass under Dry Conditions | Containment By-pass under Dry Conditions
Containment By-pass under Wet Conditions | Containment By-pass under Wet Conditions
Release from Spent Fuel Pool | Release from Spent Fuel Pool
4.4 Lists used in *Meteorology* section

4.4.1 Precipitation Forms
The Precipitation Forms list contains standard values which may be used with the Precipitation Form element in the Meteorology section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain</td>
</tr>
<tr>
<td>Light Rain</td>
</tr>
<tr>
<td>Heavy Rain</td>
</tr>
<tr>
<td>Snow</td>
</tr>
<tr>
<td>Rain and Snow Mixed</td>
</tr>
</tbody>
</table>

4.5 Lists used in *Consequences* section

4.5.1 Consequence Types
The Consequence Types list contains standard values which may be used with the Type of Effect element under the Areas Affected element in the Consequences section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contamination</td>
</tr>
<tr>
<td>Elevated Radiation Levels</td>
</tr>
</tbody>
</table>

4.5.2 Casualty Categories
The Casualty Categories list contains standard values which may be used with the Casualty Type element under the Numbers of Casualties element in the Consequences section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposed</td>
</tr>
<tr>
<td>Hospitalised</td>
</tr>
<tr>
<td>Wounded</td>
</tr>
</tbody>
</table>

4.6 Lists used in *Response Actions* section

4.6.1 Protective Action Types
The Protective Action Types list contains standard values which may be used with the Type of Action element under the Protective Action element in the Response Actions section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable Iodine Prophylaxis</td>
</tr>
<tr>
<td>Sheltering</td>
</tr>
<tr>
<td>Evacuation</td>
</tr>
<tr>
<td>Food Restrictions</td>
</tr>
<tr>
<td>Restriction on Water Use</td>
</tr>
<tr>
<td>Access Restrictions</td>
</tr>
<tr>
<td>Urgent Decontamination</td>
</tr>
<tr>
<td>Registration for Follow-Up</td>
</tr>
</tbody>
</table>

4.6.2 Protective Action Statuses
The Protective Action Statuses list contains the possible values which may be used with the Status element under the Protective Action element in the Response Actions section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dead</td>
</tr>
</tbody>
</table>
### 4.7 Lists used in Measurements section

#### 4.7.1 Measurement Value Types
The Measurement Value Types list contains the possible values which may be used with the Value Type element under the Sample element in the Measurements section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under Consideration</td>
<td>The protective action is being considered.</td>
</tr>
<tr>
<td>Planned</td>
<td>The protective action has been planned to be implemented but has not yet been ordered or initiated.</td>
</tr>
<tr>
<td>Ordered</td>
<td>The protective action has been ordered.</td>
</tr>
<tr>
<td>Initiated</td>
<td>The implementation of the protective action has been initiated.</td>
</tr>
<tr>
<td>Taken</td>
<td>The protective action has been taken.</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>The protective action has been lifted.</td>
</tr>
</tbody>
</table>

#### 4.7.2 Dose Rate Types
The Dose Rate Types list contains the possible values which may be used with the Dose Rate Type element under the Dose Rate element in the Measurements section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamma</td>
</tr>
<tr>
<td>Beta</td>
</tr>
<tr>
<td>Beta-Gamma</td>
</tr>
<tr>
<td>Neutron</td>
</tr>
</tbody>
</table>

#### 4.7.3 Sample Types
The Sample Types list contains sample type codes which may be used with the Sample Type element under the Sample element in the Measurements section of an IRIX report. The list includes, but is not limited to, environmental and food sample types. The list is derived from the list of sample type codes defined in the European Radiation Environmental Monitoring Database (REMDB). For reasons of space, only a limited part of the list is included here. For the complete list, please refer to the resource files provided with the IRIX XML Schema, see Appendix A.

<table>
<thead>
<tr>
<th>Value (Code)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Environmental Samples</td>
</tr>
<tr>
<td>A1</td>
<td>Air Samples</td>
</tr>
<tr>
<td>A11</td>
<td>Outdoor Air</td>
</tr>
<tr>
<td>A2</td>
<td>Water Samples</td>
</tr>
<tr>
<td>A20</td>
<td>Fresh Water - Unspecified</td>
</tr>
<tr>
<td>A21</td>
<td>Surface Water</td>
</tr>
<tr>
<td>A210</td>
<td>Surface Water - Not Further Specified</td>
</tr>
<tr>
<td>A211</td>
<td>River Water</td>
</tr>
</tbody>
</table>

Lowest Value
<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Alpha</td>
<td>Total Alpha</td>
</tr>
<tr>
<td>T-Beta</td>
<td>Total Beta</td>
</tr>
<tr>
<td>T-Gamma</td>
<td>Total Gamma</td>
</tr>
<tr>
<td>R-Beta</td>
<td>Residual Beta (Total Beta Activity Minus Potassium-40)</td>
</tr>
<tr>
<td>T-Ca</td>
<td>Total Calcium</td>
</tr>
<tr>
<td>T-K</td>
<td>Total Potassium</td>
</tr>
<tr>
<td>T-Na</td>
<td>Total Sodium</td>
</tr>
<tr>
<td>T-U</td>
<td>Total Uranium</td>
</tr>
<tr>
<td>Sr+Rare</td>
<td>Strontium and Rare Earth Elements Combined</td>
</tr>
<tr>
<td>I-131(G)</td>
<td>Iodine-131 Gaseous</td>
</tr>
</tbody>
</table>
4.7.5 Units
The Units list contains the possible values which may be used with the Unit elements/attributes in the Measurements section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bq/kg</td>
<td>Becquerel per kilogram</td>
</tr>
<tr>
<td>Bq/m3</td>
<td>Becquerel per cubic metre</td>
</tr>
<tr>
<td>Bq/l</td>
<td>Becquerel per litre</td>
</tr>
<tr>
<td>Bq/m2</td>
<td>Becquerel per square metre</td>
</tr>
<tr>
<td>Bq/s</td>
<td>Becquerel per second</td>
</tr>
<tr>
<td>Bq/m2/s</td>
<td>Becquerel per square metre and second</td>
</tr>
<tr>
<td>Bq/s/CAP</td>
<td>Becquerel per second and capita</td>
</tr>
<tr>
<td>Sv</td>
<td>Sievert</td>
</tr>
<tr>
<td>Gy</td>
<td>Gray</td>
</tr>
<tr>
<td>Gy/s</td>
<td>Gray per second</td>
</tr>
<tr>
<td>cps</td>
<td>Counts per second</td>
</tr>
<tr>
<td>m</td>
<td>Metre</td>
</tr>
<tr>
<td>m²</td>
<td>Square metre</td>
</tr>
<tr>
<td>m³</td>
<td>Cubic metre</td>
</tr>
<tr>
<td>m/m²</td>
<td>Metre per square metre</td>
</tr>
<tr>
<td>kg</td>
<td>Kilogram</td>
</tr>
<tr>
<td>kg/kg</td>
<td>Kilogram per kilogram</td>
</tr>
<tr>
<td>kg/l</td>
<td>Kilogram per litre</td>
</tr>
<tr>
<td>kg/m²</td>
<td>Kilogram per square metre</td>
</tr>
<tr>
<td>kg/m³</td>
<td>Kilogram per cubic metre</td>
</tr>
<tr>
<td>l</td>
<td>Litre</td>
</tr>
<tr>
<td>m²</td>
<td>Litre per square metre</td>
</tr>
<tr>
<td>%</td>
<td>Percentage</td>
</tr>
<tr>
<td>%/d</td>
<td>Percentage per day</td>
</tr>
<tr>
<td>RATIO</td>
<td>Ratio</td>
</tr>
<tr>
<td>95%</td>
<td>95th Percentile</td>
</tr>
<tr>
<td>99%</td>
<td>99th Percentile</td>
</tr>
</tbody>
</table>

4.7.6 Uncertainty Types
The Uncertainty Types list contains the possible values which may be used with the Uncertainty Type elements/attributes in the Measurements section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>2SD</td>
<td>2 X Standard Deviation</td>
</tr>
<tr>
<td>3SD</td>
<td>3 X Standard Deviation</td>
</tr>
<tr>
<td>SEm</td>
<td>Standard Error of the Mean</td>
</tr>
<tr>
<td>95%</td>
<td>95th Percentile</td>
</tr>
<tr>
<td>99%</td>
<td>99th Percentile</td>
</tr>
<tr>
<td>ABwI</td>
<td>Absolute Error (+/- Interval Around Centre Value)</td>
</tr>
<tr>
<td>%</td>
<td>Percentage</td>
</tr>
<tr>
<td>SDP</td>
<td>Standard Deviation Percentile</td>
</tr>
<tr>
<td>DL</td>
<td>Detection Limit</td>
</tr>
<tr>
<td>SE</td>
<td>Standard Error</td>
</tr>
<tr>
<td>RSD</td>
<td>Relative Standard Deviation</td>
</tr>
<tr>
<td>SEES</td>
<td>Statistical Error+Estimated Systematical</td>
</tr>
</tbody>
</table>

4.7.7 Apparatus Types
The Apparatus Types list contains standard values which may be used with the Apparatus Type element in the Measurements section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>ZnS Scintillator</td>
</tr>
<tr>
<td>ZnS</td>
<td>Scintillator</td>
</tr>
</tbody>
</table>
### Sample Treatment Types

The Sample Treatment Types list contains standard values which may be used with the Sample Treatment element under the Sample element in the Measurements section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbonisation and Homogenisation</td>
</tr>
</tbody>
</table>

### Lists used in Medical Information section

#### 4.8.1 Health Effects

The Health Effects list contains standard values which may be used with the Type of Health Effect element under the Person Diagnosed element in the Medical Information section in an IRIX report.
4.8.2 Diagnostic Results
The Diagnostic Results list contains the possible values which may be used with the Diagnostic Result element under the Person Diagnosed element in the Medical Information section in an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Radiation Syndrome</td>
</tr>
<tr>
<td>Bone Marrow Depression</td>
</tr>
<tr>
<td>Cataract</td>
</tr>
<tr>
<td>Erythema</td>
</tr>
<tr>
<td>Necrosis</td>
</tr>
<tr>
<td>Pneumonitis</td>
</tr>
<tr>
<td>Ulceration</td>
</tr>
</tbody>
</table>

4.8.3 Health Consequences
The Health Consequences list contains standard values which may be used with the Type of Health Consequence element under the Person Diagnosed element in the Medical Information section in an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amputation</td>
</tr>
<tr>
<td>Contracture</td>
</tr>
<tr>
<td>Fatality</td>
</tr>
</tbody>
</table>

4.8.4 Prognosed Occurrences
The Prognosed Occurrences list contains the possible values which may be used with the Prognosed Occurrence element under the Person Diagnosed element in the Medical Information section in an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
</tr>
<tr>
<td>Possible</td>
</tr>
<tr>
<td>Probable</td>
</tr>
<tr>
<td>Definite</td>
</tr>
</tbody>
</table>

4.8.5 Dose Types
The Dose Types list contains standard values which may be used with the Type of Dose element under the Person Diagnosed element in the Medical Information section in an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Body</td>
</tr>
<tr>
<td>Head/Neck</td>
</tr>
<tr>
<td>Eye/Lens</td>
</tr>
<tr>
<td>Thyroid</td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td>Breast/Chest</td>
</tr>
<tr>
<td>Bone Marrow</td>
</tr>
<tr>
<td>Colon</td>
</tr>
<tr>
<td>Gonads</td>
</tr>
<tr>
<td>Lung</td>
</tr>
</tbody>
</table>

4.9 Lists used in Requests section

4.9.1 Request Types
The Request Types list contains the possible values which may be used with the Type of Request element in the Requests section of an IRIX report.
4.10 Lists used in *Annexes* section

4.10.1 Confidentialities
The Confidentialities list contains the possible values which may be used with the Confidentiality element under the File Enclosure element in the Annexes section of an IRIX report.

For the list of values, see section 4.1.1.

4.10.2 Information Categories
The Information Categories list contains standard values which may be used with the Information Category element under the File Enclosure element in the Annexes section of an IRIX report.

<table>
<thead>
<tr>
<th>Value</th>
<th>Modelling Results - Contamination</th>
<th>Modelling Results - Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request for Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request for Clarification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request for Advice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request for Assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event Information</td>
<td>Modelling Results - Dose Rate</td>
<td></td>
</tr>
<tr>
<td>Installation Status Information</td>
<td>Modelling Results - Projected Dose</td>
<td></td>
</tr>
<tr>
<td>Release Information</td>
<td>Modelling Results - Plume Trajectory</td>
<td></td>
</tr>
<tr>
<td>Meteorological Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective Actions Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Information - Press Release</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modelling Results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modelling Results - Averted Dose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modelling Results - Cloud Arrival Time</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix A. XML Schemas
An XML schema for the IRIX Format exists and can be obtained at the following location:

http://nucleus.iaea.org/sites/iec/irix

The IRIX XML schema describes the structure and formatting rules to which an IRIX report must conform.

The IRIX XML schema is written in the W3C XML Schema Language and can be used for automatic validation of the structure and format of IRIX reports, and also in software development to create data structures that allow for easy access to the content of an IRIX report.

A second schema language called Schematron has been used to describe and help validate some additional structural constraints that an IRIX report must conform to and which cannot be expressed in the XML Schema language. Schematron is a rule-based validation language for making assertions about the presence or absence of patterns in XML trees. The Schematron rules are embedded within the main IRIX XML schema.
Appendix B. Examples
This appendix includes examples that illustrate the structure of the different sections of the IRIX Format.

B.1 The Identification section
The following example illustrates the minimum required set of elements that must be provided in the Identification section of an IRIX report. Note that the report is basically empty since it contains no content sections.

```xml
<ixriReport version="1.0" encoding="UTF-8">
  <ixri:Register version="1.0" xmlns:ixri="http://www.iaea.org/2012/IRIX/Format"
                xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
                xmlns:xhtml="http://www.w3.org/1999/xhtml">
    <id:Identification>
      <id:OrganisationReporting>ca.org</id:OrganisationReporting>
      <id:DateTimeOfCreation>2012-01-15T10:00:00Z</id:DateTimeOfCreation>
      <id:ReportContext>Exercise</id:ReportContext>
      <id:ReportUUID>550e8400-e29b-41d4-e716-446655440000</id:ReportUUID>
      <base:OrganisationContactInfo>
        <base:Name>Fantasyland Radiation Safety Authority</base:Name>
        <base:OrganisationID>ca.org</base:OrganisationID>
        <base:Country>PL</base:Country>
      </base:OrganisationContactInfo>
    </id:Identification>
  </ixri:Register>
</ixriReport>
```
The following example illustrates the use of many of the optional elements defined the Identification section of the IRIX Format.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<irix:Report version="1.0"
xmlns:irix="http://www.iaea.org/2012/IRIX/Format"
xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <id:OrganisationReporting>ca.org</id:OrganisationReporting>
    <id:DateTimeOfCreation>2012-01-15T10:00:00Z</id:DateTimeOfCreation>
    <id:ReportContext>Exercise</id:ReportContext>
    <id:SequenceNumber>2</id:SequenceNumber>
    <id:ReportUUID>850e5400-e29b-41d4-a716-446654400004</id:ReportUUID>
    <id:Follows>500e0400-e29b-41d4-a716-446654412134</id:Follows>
    <id:Confidentiality>For Authority Use Only</id:Confidentiality>
    <id:Addressed>
      <id:Addressed>iaea.org</id:Addressed>
    </id:Addressed>
    <id:ReportingBasis>
      <id:ReportingBasis>Convention on Early Notification of a Nuclear Accident, Article 2</id:ReportingBasis>
    </id:ReportingBasis>
    <id:ContactPerson>contact-person@ca.org</id:ContactPerson>
    <id:AdditionalInformationURL>https://ca.org</id:AdditionalInformationURL>
    <id:EventIdentification>
      <id:EventIdentification>EV201201</id:EventIdentification>
      <id:EventIdentification>Organisations="iaea.org"2012/11</id:EventIdentification>
    </id:EventIdentifications>
    <id:Identifications>
      <base:PersonContactInfo>
        <base:Name>Mr Joe Smith</base:Name>
        <base:UserID>contact-person@ca.org</base:UserID>
        <base:Position>Officer on Duty</base:Position>
        <base:OrganisationID>ca.org</base:OrganisationID>
      </base:PersonContactInfo>
      <base:OrganisationContactInfo>
        <base:Name>Fantasyland Radiation Safety Authority</base:Name>
        <base:OrganisationID>ca.org</base:OrganisationID>
        <base:Country>US</base:Country>
        <base:PhoneNumber>+1234567890</base:PhoneNumber>
        <base:FaxNumber>+123456789</base:FaxNumber>
      </base:OrganisationContactInfo>
      <id:Identifications>
    </id:Identifications>
  </id:Identification>
</irix:Report>
```
B.2 The Event Information section

The following example illustrates the structure of the Event Information section of the IRIX Format.

```xml
<?xml version="1.0" encoding="UTF-8"?>
            xmlns:id="http://www.ieea.org/2012/IRIX/Format/Identification"
            xmlns:loc="http://www.ieea.org/2012/IRIX/Format/Locations"
            xmlns:ev="http://www.ieea.org/2012/IRIX/Format/EventInformation"
            xmlns:xml="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <ev:EventInformation>
      <ev:ValidAt>2012-01-15T08:00:00Z</ev:ValidAt>
      <ev:TypeOfEvent>Nuclear Installation Event</ev:TypeOfEvent>
      <ev:TypeOfEventDescription>Station blackout triggered by severe weather conditions</ev:TypeOfEventDescription>
      <ev:DateAndTimeOfEvent>2012-01-15T08:00:00Z</ev:DateAndTimeOfEvent>
      <loc:Location>
        <loc:Name>Fantasy Location</loc:Name>
        <loc:Country>FL</loc:Country>
      </loc:Location>
      <ev:ObjectInvolved>
        <ev:TypeOfObjectOrActivity>Nuclear Power Plant</ev:TypeOfObjectOrActivity>
        <ev:Name>Fantasy NPP Unit 1</ev:Name>
      </ev:ObjectInvolved>
      <ev:GeographicCoordinates>
        <loc:Latitude>56.403333</loc:Latitude>
        <loc:Longitude>18.166667</loc:Longitude>
      </ev:GeographicCoordinates>
      <ev:ReactorCharacteristics>
        <ev:TypeOfReactor>BWR</ev:TypeOfReactor>
        <ev:ThermalPower Unit="MW">2928</ev:ThermalPower>
      </ev:ReactorCharacteristics>
      <ev:ObjectInvolved>
        <ev:EmergencyClassification>
          <ev:EmergencyClass>General Emergency</ev:EmergencyClass>
        </ev:EmergencyClassification>
        <ev:DateAndTimeOfDeclaration>2012-01-15T08:00:00Z</ev:DateAndTimeOfDeclaration>
        <ev:BasisForDeclaration>Loss of all electrical power</ev:BasisForDeclaration>
      </ev:ObjectInvolved>
      <ev:PlantStatus>
        <ev:CoreState>
          <ev:Status>Stopped</ev:Status>
          <ev:StopAt>2012-01-15T08:00Z</ev:StopAt>
        </ev:CoreState>
      </ev:PlantStatus>
    </ev:EventInformation>
  </id:Identification>
</irix:Report>
```

Severe weather conditions triggered station blackout at 08:00 UTC.
B.3 The Release section

The following example illustrates the structure of the Release section of the IRIX Format.

```xml
<iriix:Report version="1.0" xmlns:iriix="http://www.iaea.org/2012/IRIX/Format"
    xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
    xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
    xmlns:html="http://www.w3.org/1999/xhtml">
    <id:Identification>
        <release:Release ValidAt="2012-01-15T10:00:00Z"
                        xmlns:release="http://www.iaea.org/2012/IRIX/Format/ReleaseInformation">
            <release:ReleaseOccurrence>
                <release:ActualRelease>
                    <release:Occurrence>Has Not Occurred</release:Occurrence>
                </release:ActualRelease>
                <release:FutureRelease>
                    <release:Occurrence> Likely to Occur</release:Occurrence>
                    <release:Compartment> Air</release:Compartment>
                </release:FutureRelease>
                <release:ReleaseOccurrence>
                    <release:ReleasePhase>
                        <release:Occurrence>Projected - Likely to Occur</release:Occurrence>
                        <release:ReleaseRoute> Release from Containment</release:ReleaseRoute>
                        <release:ReleaseHeight>
                            <release:Base Unit="m">50</release:Base>
                        </release:ReleaseHeight>
                        <release:NuclideRelease>
                            <release:NuclideCombination> I-131(G)</release:NuclideCombination>
                            <release:Activity Unit="Bq">1e9</release:Activity>
                        </release:NuclideRelease>
                        <release:MethodOfDetermination> Other</release:MethodOfDetermination>
                    </release:ReleasePhase>
                    <release:ReleasePhase>
                        <release:NuclideRelease>
                            <release:NuclideCombination> I-131(P)</release:NuclideCombination>
                            <release:Activity Unit="Bq">1e10</release:Activity>
                        </release:NuclideRelease>
                        <release:MethodOfDetermination> Other</release:MethodOfDetermination>
                    </release:ReleasePhase>
                </release:ReleaseOccurrence>
            </release:Release>
        </release:Release>
    </id:Identification>
</iriix:Report>
```
B.4 The Meteorology section
The following example illustrates the structure of the Meteorology section of the IRIX Format. The example illustrates how meteorological conditions observed during the past 6 hours and forecasted for the next 6 hours can be reported.

```xml
<iriix:Report version="1.0" encoding="UTF-8">
    <iriix:Report version="1.0" xmlns:iriix="http://www.iaea.org/2012/IRIX/Format"
                   xmlns:loc="http://www.iaea.org/2012/IRIX/Format/Identification"
                   xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
                   xmlns:html="http://www.w3.org/1999/xhtml">
        <id:Identification>
            <iriix:ValidDate>2012-01-15T12:00:00Z</iriix:ValidDate>
            <iriix:ValidForPeriod>
                <iriix:StartDate>2012-01-15T06:00:00Z</iriix:StartDate>
                <iriix:EndDate>2012-01-15T12:00:00Z</iriix:EndDate>
            </iriix:ValidForPeriod>
            <iriix:WindSpeed Unit="m/s">3</iriix:WindSpeed>
            <iriix:WindDirection Unit="DegreesFromNorth">45</iriix:WindDirection>
        </iriix:ValidForPeriod>
    </iriix:Report>
</iriix:Report>
```
B.5 The *Consequences* section

The following example illustrates the structure of the Consequences section of the IRIX Format.

```xml
<xml version="1.0" encoding="UTF-8">
<irix:Report version="1.0" xmlns:irix="http://www.iaea.org/2012/IRIX/Format"
   xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
   xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <id:Consequences Valid="2012-01-15T10:06:00Z"
        xmlns:con="http://www.iaea.org/2012/IRIX/Format/ConsequenceInformation">
      <con:AreaAffected>
        <con:Occurrence>Actual - Confirmed</con:Occurrence>
        <con:Area>
          <con:Description>Areas located NW and N from site.</con:Description>
        </con:Area>
        <con:Effect>
          <con:Description>Ambient gamma dose rate levels up to 0.4mSv/h measured.
          Mainly ground shine.</con:Description>
        </con:Effect>
      </con:AreaAffected>
      <con:AreaAffected>
        <con:Occurrence>Actual - Confirmed</con:Occurrence>
        <con:Area>
          <con:Description>Areas located NE, E, S and W from site.</con:Description>
        </con:Area>
        <con:Effect>
          <con:Description>Radiation levels normal.</con:Description>
        </con:Effect>
      </con:AreaAffected>
      <con:AreaAffected>
        <con:NumberOfCasualties>
          <con:CasualtyType>Hospitalised</con:CasualtyType>
          <con:MemberOfGroup>Public</con:MemberOfGroup>
          <con:Number>21</con:Number>
          <con:MethodOfDetermination>Count</con:MethodOfDetermination>
        </con:NumberOfCasualties>
        <con:NumberOfCasualties>
          <con:CasualtyType>Hospitalised</con:CasualtyType>
          <con:MemberOfGroup>Emergency Services</con:MemberOfGroup>
          <con:Number>2</con:Number>
          <con:MethodOfDetermination>Count</con:MethodOfDetermination>
        </con:NumberOfCasualties>
        <con:NumberOfCasualties>
          <con:CasualtyType>Dead</con:CasualtyType>
          <con:Number>0</con:Number>
        </con:NumberOfCasualties>
      </con:AreaAffected>
    </id:Consequences>
  </id:Identification>
</irix:Report>
```
B.6 The **Response Actions** section

The following example illustrates the structure of the Response Actions section of the IRIX Format.

```xml
<report version="1.0" xmlns:iri="http://www.iae.a.org/2012/IRIX/Format"
        xmlns:id="http://www.iae.a.org/2012/IRIX/Format/Identification"
        xmlns:base="http://www.iae.a.org/2012/IRIX/Format/Base"
        xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <act:ResponseActions ValidDt="2012-01-15T10:00:00Z"
                          xmlns:act="http://www.iae.a.org/2012/IRIX/Format/ResponseActions">
      <act:ProtectiveActions>
        <act:ProtectiveActionsTakenOrPlanned>Yes</act:ProtectiveActionsTakenOrPlanned>
        <act:ProtectiveAction>
          <act:TypeOfAction>Evacuation</act:TypeOfAction>
          <act:Status>Ordered</act:Status>
          <act:AreaSector>
            <act:FromAngle Unit="DegreesFromNorth">0</act:FromAngle>
            <act:ToAngle Unit="DegreesFromNorth">360</act:ToAngle>
            <act:InnerRadius Unit="m">0</act:InnerRadius>
            <act:OuterRadius Unit="m">2000</act:OuterRadius>
          </act:AreaSector>
        </act:ProtectiveAction>
        <act:ProtectiveAction>
          <act:TypeOfAction>Sheltering</act:TypeOfAction>
          <act:Status>Ordered</act:Status>
          <act:AreaSector>
            <act:FromAngle Unit="DegreesFromNorth">0</act:FromAngle>
            <act:ToAngle Unit="DegreesFromNorth">360</act:ToAngle>
            <act:InnerRadius Unit="m">2000</act:InnerRadius>
            <act:OuterRadius Unit="m">4000</act:OuterRadius>
          </act:AreaSector>
        </act:ProtectiveAction>
      </act:ProtectiveActions>
    </act:ResponseActions>
    <act:DescriptionOfActions>
      <html:p>
        National Emergency Operations Centre activated at 10:00 UTC following notification from the site.
      </html:p>
    </act:DescriptionOfActions>
  </act:ResponseActions>
</iri:Report>
```
B.7 The Measurements section

The following examples illustrate the structure of the Measurements section of the IRIX Format.

The example below illustrates the use of the Dose Rate element in the Measurements section of the IRIX Format for reporting several dose rate measurements performed at one time by several radiation monitoring stations.

```xml
<iriX:Report version="1.0" xmlns:iriX="http://www.iaea.org/2012/IRIX/Format"
 xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
 xmlns:loc="http://www.iaea.org/2012/IRIX/Format/Locations"
 xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
 xmlns:xhtml="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <mon:Measurements ValidDate="2012-01-15T10:00:00Z">
      <mon:DoseRate>
        <mon:DoseRateType>Gamma</mon:DoseRateType>
        <mon:MeasuringPeriod>
          <mon:StartTime>2012-01-15T09:00:00Z</mon:StartTime>
          <mon:EndTime>2012-01-15T10:00:00Z</mon:EndTime>
        </mon:MeasuringPeriod>
        <mon:Measurement>
          <loc:Location ref="MP1"/>
          <mon:Value Unit="SV/s">4.3e-7</mon:Value>
        </mon:Measurement>
        <mon:Measurement>
          <loc:Location ref="MP2"/>
          <mon:Value Unit="SV/s">4.8e-7</mon:Value>
        </mon:Measurement>
      </mon:DoseRate>
      <mon:DoseRate>
        <mon:DoseRateType>Gamma</mon:DoseRateType>
        <mon:MeasuringPeriod>
          <mon:StartTime>2012-01-15T10:00:00Z</mon:StartTime>
          <mon:EndTime>2012-01-15T11:00:00Z</mon:EndTime>
        </mon:MeasuringPeriod>
        <mon:Measurement>
          <loc:Location ref="MP1"/>
          <mon:Value Unit="SV/s">7.6e-7</mon:Value>
        </mon:Measurement>
        <mon:Measurement>
          <loc:Location ref="MP2"/>
          <mon:Value Unit="SV/s">9.8e-7</mon:Value>
        </mon:Measurement>
      </mon:DoseRate>
      <mon:Measurements>
        <mon:Measurement>
          <loc:Location ref="MP1"/>
          <mon:Value Unit="SV/s">7.6e-7</mon:Value>
        </mon:Measurement>
      </mon:Measurements>
    </mon:Measurements>
  </id:Identification>
</iriX:Report>
```
The example below illustrates the use of many of the optional elements of the Dose Rate element in the Measurements section of the IRIX Format.

```xml
<irix:Report version="1.0" xmlns:irix="http://www.iae.org/2012/IRIX/Format"
xmlns:id="http://www.iae.org/2012/IRIX/Format/Identification"
xmlns:loc="http://www.iae.org/2012/IRIX/Format/Locations"
xmlns:base="http://www.iae.org/2012/IRIX/Format/Base"
xmlns:mon="http://www.iae.org/2012/IRIX/Format/Measurements">
  <id:Identification>
    <mon:Measurements ValidAt="2012-01-15T10:00:00Z"
    xmlns:mon="http://www.iae.org/2012/IRIX/Format/Measurements">
      <mon:DoseRate>
        <mon:DoseRateType>Gamma</mon:DoseRateType>
        <mon:MeasuringPeriod>
          <mon:StartTime>2012-01-15T09:00:00Z</mon:StartTime>
          <mon:EndTime>2012-01-15T09:00:00Z</mon:EndTime>
        </mon:MeasuringPeriod>
        <mon:ApparatusType>Gamma - Solid State Detector</mon:ApparatusType>
        <mon:Description>This dataset contains measurement data collected using a portable gamma dose rate meter for purposes of verifying the readings reported by the stationary detector at Fantasy NPP MP1.</mon:Description>
        <mon:Measurements>
          <mon:Measurement>
            <loc:Location>
              <loc:Name>Fantasy NPP Radiation Monitoring Post 1 (MP1)</loc:Name>
              <loc:GeographicCoordinates>
                <loc:Latitude>60.403300</loc:Latitude>
                <loc:Longitude>18.166602</loc:Longitude>
              </loc:GeographicCoordinates>
              <loc:Municipality>Fantasy Municipality</loc:Municipality>
              <loc:AdministrativeUnit>Fantasy State</loc:AdministrativeUnit>
              <loc:Country>SE</loc:Country>
              <loc:AccuracyType>Exact Location</loc:AccuracyType>
              <loc:Description>This monitoring location is located at the north-west site boundary of the Fantasy NPP site.</loc:Description>
            </loc:Location>
            <loc:LocationOffset>
              <loc:Distance Unit="m">5</loc:Distance>
              <loc:Direction Unit="DegreesFromNorth">360</loc:Direction>
            </loc:LocationOffset>
            <mon:Value Constraint="LT" Unit="Sv/s">5.0e-10</mon:Value>
            <mon:Uncertainty Type="DL" Unit="Sv/s">5.0e-10</mon:Uncertainty>
            <mon:Timebase>PT10S</mon:Timebase>
            <mon:Background>
              <mon:Value Unit="Sv/s">4.0e-7</mon:Value>
              <mon:Uncertainty Unit="Sv/s" Type="SD">1.0e-8</mon:Uncertainty>
              <mon:Timebase>PT10S</mon:Timebase>
            </mon:Background>
            <mon:Validated>Not Validated</mon:Validated>
            <mon:Description>The quality of this measurement value has not yet been checked.</mon:Description>
          </mon:Measurement>
        </mon:Measurements>
      </mon:DoseRate>
    </mon:Measurements>
  </id:Identification>
</irix:Report>
```
The example below illustrates the use of the Sample element in the Measurements section of the IRIX Format for reporting several nuclide concentration measurements performed on different sample types (air and deposition).

```xml
             xmlns:id="http://www.iae.org/2012/IRIX/Format/Identification"
             xmlns:loc="http://www.iae.org/2012/IRIX/Format/Location"
             xmlns:base="http://www.iae.org/2012/IRIX/Format/Base"
             xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>
  </id:Identification>
  <mon:Measurements xmlns:mon="http://www.iae.org/2012/IRIX/Format/Measurements">
    <mon:Sample>  
      <mon:SampleType>All</mon:SampleType> <!-- All = Outdoor Air -->  
      <mon:SamplingPeriod>
        <mon:StartTime>2012-01-15T08:00:00Z</mon:StartTime>
        <mon:EndTime>2012-01-15T09:00:00Z</mon:EndTime>
      </mon:SamplingPeriod>
      <loc:Location id="L1"/>
      <mon:Measurements>
        <mon:Measurement>
          <mon:Nuclide>T-131</mon:Nuclide>
          <mon:Value Unit="Bq/m³">7.5e7</mon:Value>
        </mon:Measurement>
        <mon:Measurement>
          <mon:Nuclide>Ca-137</mon:Nuclide>
          <mon:Value Unit="Bq/m³">3.5e6</mon:Value>
        </mon:Measurement>
      </mon:Measurements>
    </mon:Sample>
    <mon:Sample>  
      <mon:SampleType>A40</mon:SampleType> <!-- A40 = Deposition -->  
      <mon:SamplingPeriod>
        <mon:StartTime>2012-01-15T08:00:00Z</mon:StartTime>
        <mon:EndTime>2012-01-15T09:00:00Z</mon:EndTime>
      </mon:SamplingPeriod>
      <loc:Location id="L1"/>
      <mon:Measurements>
        <mon:Measurement>
          <mon:Nuclide>T-131</mon:Nuclide>
          <mon:Value Unit="Bq/m²">1.6e2</mon:Value>
        </mon:Measurement>
        <mon:Measurement>
          <mon:Nuclide>Ca-137</mon:Nuclide>
          <mon:Value Unit="Bq/m²">7.1e5</mon:Value>
        </mon:Measurement>
      </mon:Measurements>
    </mon:Sample>
  </mon:Measurements>
</irix:Report>
```
The example below illustrates the use of many of the optional elements of the Sample element in the Measurements section of the IRIX Format.

```xml
  xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
  xmlns:loc="http://www.iaea.org/2012/IRIX/Format/Locations"
  xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
  xmlns:html="http://www.w3.org/1999/xhtml"
  id="Identification">
  <mon:Measurements Validate="2012-01-15T10:00:00Z"
    xmlns:mon="http://www.iaea.org/2012/IRIX/Format/Measurements">
    <mon:Sample>
      <mon:SampleType>Outdoor Air</mon:SampleType>
      <mon:SamplingPeriod>
        <mon:StartTime>2012-01-01T00:00:00Z</mon:StartTime>
        <mon:EndTime>2012-01-31T24:00:00Z</mon:EndTime>
      </mon:SamplingPeriod>
      <mon:Location>
        <loc:Name>Country of Fantasyland</loc:Name>
        <loc:Country>Fantasyland</loc:Country>
      </mon:Location>
      <mon:Value Type="Highest Value">
        <mon:Volume Unit="m3">10000</mon:Volume>
      </mon:Value>
      <mon:SampleTreatment>No Treatment</mon:SampleTreatment>
      <mon:Description>
        Some remarks relating to this measurement data set.
      </mon:Description>
    </mon:Sample>
    <mon:Measurement>
      <mon:Monocline>131</mon:Monocline>
      <mon:Value Unit="Bq/m3">5.0e5</mon:Value>
      <mon:Uncertainty Type="U" Unit="Bq/m3">10</mon:Uncertainty>
      <mon:Timebase>PID</mon:Timebase>
    </mon:Measurement>
  </mon:Measurements>
</irix:Report>
```

The last 12 months. Averaging daily measurements taken at this location in the
value.
The example below illustrates the use of the Sample element in the Measurements section of the IRIX Format for reporting environmental dose rate measurements.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<ix:Report version="1.0" xmlns:ix="http://www.iaea.org/2012/IRIX/Format"
  xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
  xmlns:loc="http://www.iaea.org/2012/IRIX/Format/Location"
  xmlns:html="http://www.w3.org/1999/xhtml">
  <ix:Identification>
  </ix:Identification>
  <ix:Measurements ValidAt="2012-01-15T10:00:00Z" xmlns:mon="http://www.iaea.org/2012/IRIX/Format/Measurements">
    <mon:Sample>
      <mon:SampleType>A5</mon:SampleType> <!-- A5 = "External Radiation" -->
      <mon:StartTime>2012-01-15T09:00:00Z</mon:StartTime>
      <mon:EndTime>2012-01-15T10:00:00Z</mon:EndTime>
      <mon:SamplingPeriod />
      <loc:Location ref="MP1" />
      <mon:Measurement>
        <mon:NuclideCombination>T-Gamma</mon:NuclideCombination>
        <mon:Value Unit="Sv/s">4.3e-7</mon:Value>
      </mon:Measurement>
    </mon:Sample>
    <mon:Sample>
    </mon:Sample>
  </ix:Measurements>
</ix:Report>
```
B.8 The **Medical Information** section

The following example illustrates the structure of the Medical Information section of the IRIX Format.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<irix:Report version="1.0" xmlns:irix="http://www.ieea.org/2012/IRIX/Format"
  xmlns:id="http://www.ieea.org/2012/IRIX/Format/Identification"
  xmlns:base="http://www.ieea.org/2012/IRIX/Format/Base"
  xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <medical:MedicalInformation ValidAt="2012-01-15T10:00:00Z"
      xmlns:medical="http://www.ieea.org/2012/IRIX/Format/MedicalInformation">
      <medical:PersonDiagnosed>
        <medical:Identity>
          <medical:Code>P1000</medical:Code>
          <medical:Description>Person is an on-site response personnel who participated in initial accident mitigation operations.</medical:Description>
        </medical:Identity>
        <medical:HealthEffectsDiagnosed>
          <medical:HealthEffectDiagnosed>
            <medical:TypeOfHealthEffect>Acute Radiation Syndrome</medical:TypeOfHealthEffect>
            <medical:DiagnosticsResult>Definite</medical:DiagnosticsResult>
          </medical:HealthEffectDiagnosed>
        </medical:HealthEffectsDiagnosed>
        <medical:HealthConsequencesPrognosed>
          <medical:HealthConsequencePrognosed>
            <medical:TypeOfHealthConsequence>Fatality</medical:TypeOfHealthConsequence>
            <medical:PrognosedOccurrence>Possible</medical:PrognosedOccurrence>
          </medical:HealthConsequencePrognosed>
        </medical:HealthConsequencesPrognosed>
        <medical:DoseAssessments>
          <medical:AssessedDose>
            <medical:TypeOfDose>Whole Body</medical:TypeOfDose>
            <medical:DoseValue Unit="Sv">4.00</medical:DoseValue>
          </medical:AssessedDose>
        </medical:DoseAssessments>
      </medical:PersonDiagnosed>
    </medical:MedicalInformation>
  </id:Identification>
</irix:Report>
```
B.9 The *Media Information* section

The following example illustrates the structure of the Media Information section of the IRIX Format.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<irix:Report version="1.0" xmlns:irix="http://www.iaea.org/2012/IRIX/Format"
    xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
    xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
    xmlns:html="http://www.w3.org/1999/xhtml">
    <id:Identification>
        [13 lines]
    </id:Identification>
    <media:MediaInformation ValidAt="2012-01-15T10:00:00Z"
        xmlns:media="http://www.iaea.org/2012/IRIX/Format/MediaInformation">
        <media:PublicInformationContacts>
            <base:PersonContactInfo>
                <base:Name>Mr. Spokes Person</base:Name>
                <base:PhoneNumber>+1234567890</base:PhoneNumber>
                <base:EmailAddress>spokes.person@ca.org</base:EmailAddress>
            </base:PersonContactInfo>
        </media:PublicInformationContacts>
        <media:PublicWebsiteURL>http://www.ca.org/press/2012/accident</media:PublicWebsiteURL>
    </media:MediaInformation>
</irix:Report>
```
B.10 The Requests section

The following examples illustrate the structure and use of the Requests section of the IRIX Format.

The example below illustrates a request for information sent from one organisation to another.

```xml
<xml version="1.0" encoding="UTF-8"/>
<iriX:Report xmlns:iriX="http://www.iaea.org/2012/IRIX/Format"
 xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
 xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <id:OrganisationReporting>iaea.org</id:OrganisationReporting>
    <id:DateAndTimeOfCreation>2012-01-15T10:00:00Z</id:DateAndTimeOfCreation>
    <id:ReportContext>Exercise</id:ReportContext>
    <id:ReportUUID>550e8400-029b-411d-a716-446655400000</id:ReportUUID>
    <id:Addresses>
      <id:Address>ca.org</id:Address>
    </id:Addresses>
  </id:Identification>
  <id:Identifications>
    <base:OrganisationContactInfo>
      <base:Name>UN International Atomic Energy Agency</base:Name>
      <base:OrganisationID>iaea.org</base:OrganisationID>
      <base:Country>US</base:Country>
      <base:PhoneNumber>+43123456789</base:PhoneNumber>
    </base:OrganisationContactInfo>
  </id:Identifications>
  <req:Requests xmlns:req="http://www.iaea.org/2012/IRIX/Format/Requests">
    <req:Request>
      <req:RequestUUID>550e8400-029b-411d-a716-446655400000</req:RequestUUID>
      <req:TypeOfRequest>Request for Information</req:TypeOfRequest>
      <req:RequestSubject>Requesting information regarding plans to vent containment at Fantasy NPP Unit 1.</req:RequestSubject>
      <html:p>Requesting information regarding plans to vent containment at Fantasy NPP Unit 1.</html:p>
    </req:Request>
  </req:Requests>
</iriX:Report>
```
The example below illustrates a response sent in return to a request for information.

<xml version="1.0" encoding="UTF-8" xmlns:iriX="http://www.iaea.org/2012/IRIX/Format"
 xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
 xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>
    <id:OrganisationReporting>ca.org</id:OrganisationReporting>
    <id:DateTimeOfCreation>2012-01-15T11:00:00</id:DateTimeOfCreation>
    <id:ReportContext>Exercise</id:ReportContext>
    <id:ReportUUID>550e9400-c29b-41d4-a716-446655440001</id:ReportUUID>
    <id:Address>
      <id:organisationInfo>
        <base:Name>Fantasyland Radiation Safety Authority</base:Name>
        <base:Country>CA</base:Country>
        <base:PhoneNumber>123456789</base:PhoneNumber>
      </id:organisationInfo>
    </id:Address>
    <id:Identification>
      <base:OrganisationContactInfo>
        <base:Name>Fantasyland Radiation Safety Authority</base:Name>
        <base:OrganisationID>ca.org</base:OrganisationID>
        <base:Country>CA</base:Country>
        <base:PhoneNumber>123456789</base:PhoneNumber>
      </id:OrganisationContactInfo>
    </id:Identification>
  </id:Identification>
  <req:Requests xmlns:req="http://www.iaea.org/2012/IRIX/Format/Requests">
    <req:Response>
      <req:ResponseUUID>550e9400-c29b-41d4-a716-446655440001</req:ResponseUUID>
      <req:RequestReference>
        <req:OrganisationReporting>ca.org</req:OrganisationReporting>
        <req:DateTimeOfRequest>2012-01-15T10:00:00</req:DateTimeOfRequest>
      </req:RequestReference>
      <req:RequestUUID>550e9400-c29b-41d4-a716-446655440001</req:RequestUUID>
      <req:TypeOfRequest>Request for Information</req:TypeOfRequest>
      <req:RequestSubject>Venting at Unit 1</req:RequestSubject>
      <req:RequestText>
        Requesting information regarding plans of venting containment at Fantasy NPP Unit 1.</req:RequestText>
      </req:RequestText>
    </req:Request>
    <req:RequestText>Requesting information regarding plans of venting containment at Fantasy NPP Unit 1.</req:RequestText>
  </req:Response>
</xml:Identification>
B.11 The *Locations* section

The following examples illustrate the structure and use of the Locations section of the IRIX Format.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<irix:Report version="1.0" xmlns:irix="http://www.iaea.org/2012/IRIX/Format"
xmlns:id="http://www.iaea.org/2012/IRIX/Format/Identification"
xmlns:loc="http://www.iaea.org/2012/IRIX/Format/Locations"
xmlns:base="http://www.iaea.org/2012/IRIX/Format/Base"
xmlns:html="http://www.w3.org/1999/xhtml">
  <id:Identification>...
  <mon:Measurements ValidDt="2012-01-15T10:00:00Z">
    <loc:Locations>
      <loc:Location id="MF1">
        <loc:Name>Fantasy NPF Radiation Monitoring Post 1 (MF1)</loc:Name>
        <loc:GeographicCoordinates>
          <loc:Latitude>60.403308</loc:Latitude>
          <loc:Longitude>18.166602</loc:Longitude>
        </loc:GeographicCoordinates>
      </loc:Location>
      <loc:Location id="MF2">
        <loc:Name>Fantasy NPF Radiation Monitoring Post 2 (MF2)</loc:Name>
        <loc:GeographicCoordinates>
          <loc:Latitude>60.403305</loc:Latitude>
          <loc:Longitude>18.166615</loc:Longitude>
        </loc:GeographicCoordinates>
      </loc:Location>
      <loc:Location id="MF3">
        <loc:Name>Fantasy NPF Radiation Monitoring Post 3 (MF3)</loc:Name>
        <loc:GeographicCoordinates>
          <loc:Latitude>60.403305</loc:Latitude>
          <loc:Longitude>18.166620</loc:Longitude>
        </loc:GeographicCoordinates>
      </loc:Location>
    </loc:Locations>
  </mon:Measurements>
</irix:Report>
```
B.12 The Annexes section

The following examples illustrate the structure and use of the elements in the Annexes section of the IRIX Format.

The example below illustrates the structure and use of the File Enclosure element of the Annexes section.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<irix:Report version="1.0" xmlns:irix="http://www.iae.org/2012/IRIX/Format"
    xmlns:id="http://www.iae.org/2012/IRIX/Format/Identification"
    xmlns:base="http://www.iae.org/2012/IRIX/Format/Base"
    xmlns:html="http://www.w3.org/1999/xhtml">
    <id:Identification>
        <annex:Annexes xmlns:annex="http://www.iae.org/2012/IRIX/Format/Annexes">
            <annex:FileEnclosure>
                <annex:Title>Dose projections for areas around NPP</annex:Title>
                <annex:InformationCategory>Modelling Results - Projected Dose</annex:InformationCategory>
                <annex:AuthorOrganisation>ca.org</annex:AuthorOrganisation>
                <annex:Confidentiality>For Addressees Use Only</annex:Confidentiality>
                <annex:FileName>DPS2011011003.pdf</annex:FileName>
                <annex:FileTypeAndTime>2012-01-15T10:00:00Z</annex:FileTypeAndTime>
                <annex:MimeType>application/pdf</annex:MimeType>
                <annex:FileSize>1024</annex:FileSize>
            </annex:FileEnclosure>
        </annex:Annexes>
    </id:Identification>
</irix:Report>
```

The example below illustrates the structure and use of the Annotation element of the Annexes section.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<irix:Report version="1.0" xmlns:irix="http://www.iae.org/2012/IRIX/Format"
    xmlns:id="http://www.iae.org/2012/IRIX/Format/Identification"
    xmlns:base="http://www.iae.org/2012/IRIX/Format/Base"
    xmlns:html="http://www.w3.org/1999/xhtml">
    <id:Identification>
        <annex:Annexes xmlns:annex="http://www.iae.org/2012/IRIX/Format/Annexes">
            <annex:Annotation>
                <annex:Title>Remark</annex:Title>
                <annex:Text>Some of the information contained in this report could not be confirmed with the operator of the troubled facility.</annex:Text>
            </annex:Annotation>
        </annex:Annexes>
    </id:Identification>
</irix:Report>
```
REFERENCES

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