

Private & Confidential

## CLG Fire and Rescue Service (F&RS)



# Incident XML Information Model - v1-0i

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# 1 Introduction

## 1.1 Background

CLG's Fire and Rescue Statistics Division (FRSD) is implementing a new web-enabled Incident Recording System (IRS), which will modernise the collection and subsequent statistical handling and publication of incident data from the Fire and Rescue Service.

The project will provide the 60+ Fire and Rescue Services in the UK with a fully tested and piloted means of collecting, validating and transmitting data to CLG on all incidents attended by the Fire and Rescue Service.

To support the new IRS database the FRSD has developed associated XML Schema, which will be used in transferring incident data between the F&RS community and the CLG.

## 1.2 Objectives

The aim of this report is to document the XML Information Model that has been created for the primary electronic 'Incident' Document, which will be the central to the F&RS Incident Reporting System (IRS) project.

This XML Information Model consists of a number of W3C XML Schemas that describe the structure of the XML data that will represent an F&RS incident, and will be exchanged between various stakeholder systems.

This document is complimented by the XML Schemas themselves, along with generated schema documentation for those readers that don't have XML tools.

This document supports the 'Web Services Guide' Document.

## 1.3 Outstanding Issues

Schemas to be submitted to GovTalk for final ratification.

## 2 Information Model

In order to develop the XML Information Model, a UML data model was first created. Basing the XML model on a sound data model helps to ensure that the resulting schemas represent the data correctly, and are not tied to a particular data capture mechanism e.g. Online Forms data capture. The UML model also enables many data relationship constraints to be considered carefully in order to balance current restrictions and future flexibility.

The main diagram in this section of the document illustrates the UML model of the incident data. The diagram also highlights the XML schema files in which each of the model classes is defined.

### 2.1 Information Model Overview

The Incident class (element) is the top level of the model, and contains all the information that defines a FRSD Incident Document. The sections within the Incident are shown in more detail later in this document, but are summarised below.

The Incident is the core business object at the top level and contains all the information that defines the Incident data. Each Incident contains a unique identifier structure, consisting of an 'IncidentId' (generated by the IRS system), 'FRSIncidentNumber' (expected to be defined by a FRS Command and Control system), and a 'NationalStatisticsNumber' (IRS system Published identifier). There are also supporting details such as: Audit details (who created and last updated) and ResponsibleParty details (who is responsible for recording the incident).

An Incident has a main Incident location and the ability to define different locations for situations where vehicles are 'deployed from' and 'deployed to' other locations. This allows for incidents where vehicles are deployed from other incidents, their home station or another address location. Each location can define an addressable location (property) or geo-coordinates as appropriate.

It is possible for an Incident to appear to be one type from the initial mobilisation call e.g. Fire, when in fact it turns out to be another e.g. False Alarm, and so each Incident stores separate information about the 'Incident At Call' and the 'Incident On Attendance'. The first contains information that can typically be captured by the FRSs command and control system at the time of the call and until the incident is closed, such as: the mobilisation incident type, origin of call, time incident closed.

The majority of the detailed information about an Incident is only available once the command FireOfficer has recorded information at the scene, and so is stored within the IncidentOnAttendance structure. Each Incident will always be defined as a 'Fire', 'SpecialService' or 'FalseAlarm', and require particular data sections to be captured within the Incident document.

For Fires, a large amount of additional information is required within the Primary Fire details section, much of which is dependent on the category of property involved (e.g.

'Dwelling', 'NonResidential' building, 'RoadVehicle', etc.). These details are contained within a choice structure with only one of them present for a particular Incident.

The detailed Evacuation and Victim information is typically required for Fires and Special Services and is contained within the InvolvementOfPersons structure within the IncidentOnAttendance structure, and records detailed information about each victim and their type: Fatality, Injury (Casualty) or Rescued (Uninjured).

The 'ResourceUsage' class contains details on all FRS vehicles (appliances) deployed, equipment used, and FireOfficers involved in the Incident. There can be any number of these associated with each Incident.

Note: Originally, the Special Service incidents were planned to record summary (totals) information, which would be stored within the VictimSummary class. The model has been altered to contain this class within the Victims class, but it is not currently planned to be used. It has been retained in case this decision is altered at a later date.

Full details of the actual data stored in each of the sections are provided later in this document when the resulting XML Schema Structures are explained.

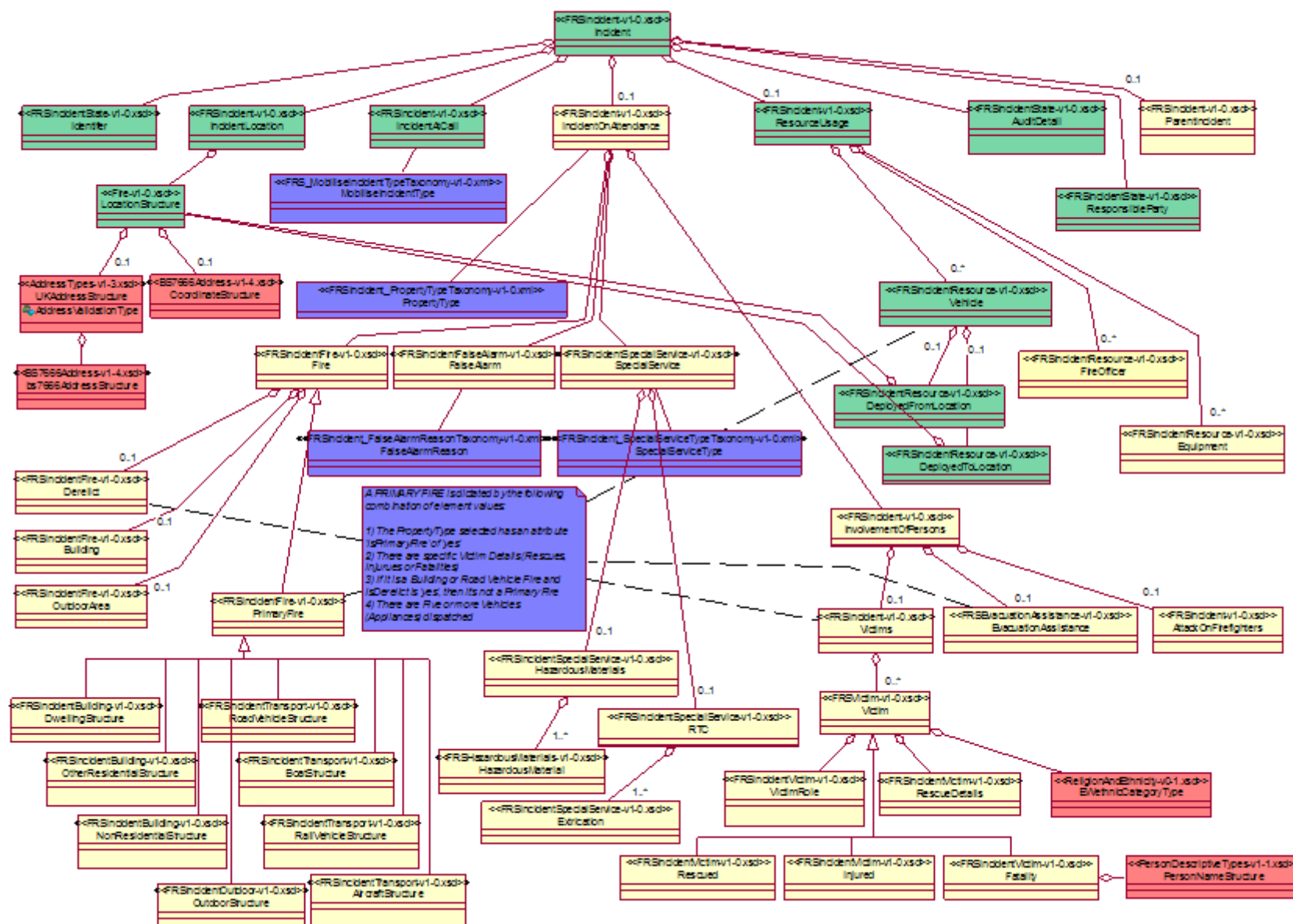
## 2.2 UML Diagram Details

The diagram has been colour coded to identify different aspects for consideration. The 'green' elements are those that are related to information that would be captured by a FRS command and control system during mobilisation for an incident. The yellow represents information that would be captured by a FireOfficer at a later point in time. The red details relate to data that will be based on existing GovTalk schema definitions. The dark blue elements are additional notes to clarify key data relationships that need to be considered in conjunction with the schemas e.g. refer to the Taxonomy/Hierarchy Control section later in the document.

Each class of data (box on the diagram) contains a number of specific questions (schema elements). Many of the Questions were derived from an initial spreadsheet used during previous Data Consultation Reviews with various stakeholders.

Note: The spreadsheets of questions have been maintained and cross-referenced to the relevant schema elements and are supplied in the 'Information Model' pack within the 'source' directory. Please refer to the 'Appendix B - Web Form Questions for incident types - v1-0i.xls' spreadsheet.

Each class is related to other classes based on relationships (lines on the diagram). The triangle arrows indicate that a class is a sub-type (child) of a type (parent). The child inherits all the parents' details and also has its own specific questions. One restriction is that there can only be one type of child populated in these situations. For example, a Primary Fire Incident can only be a Dwelling, Road Vehicle, etc. The diamond symbol defines that a class (group of questions) is aggregated (contained) within another class. The numbers indicate the cardinality (optional and possible number of occurrences) of the relationships e.g. An Incident can use zero or many vehicles (appliances).

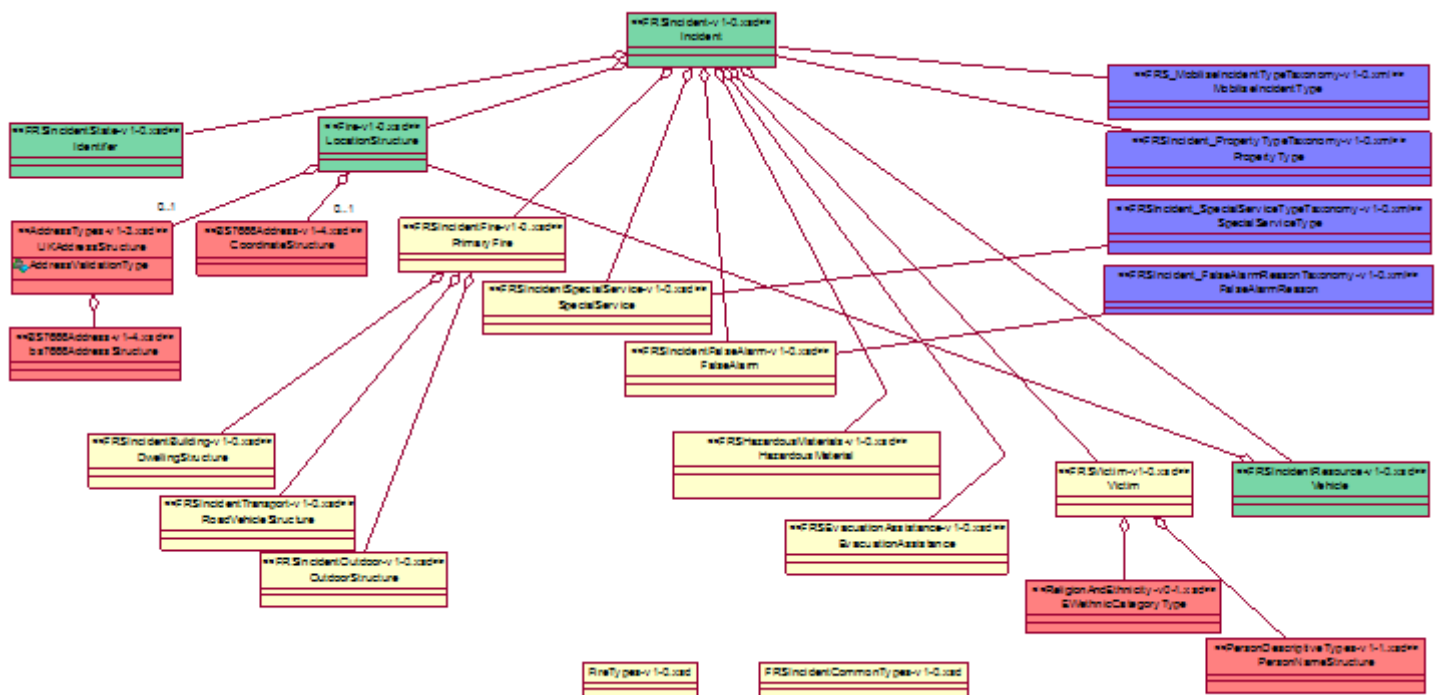


## 3 Schema Model

### 3.1 Schema Relationships

From examination of the data model created, there are obvious groupings of information present e.g. location information, victim information, resource usage information, fire information, etc. In order to maintain these groupings, the XML information model was separated out into a number of schemas generally representing key business objects within the Incident details, each covering a particular area of the data. The schemas are then pulled together within higher-level schemas to produce the required structure.

Some of the schemas have been separated to assist with re-use across other Fire & Rescue Service Projects. The FireTypes-v1-0.xsd schema contains only details that are defined as Convergence related data structures e.g. FRS Identifiers, Station Identifiers, National Call-sign identifiers, Mobilise Incident Type, Resource Types and so on. The relationships between all the schemas are shown in the diagram below:



The elements are highlighted as follows:

- **Green** Schemas that populate details at the mobilisation stage
- **Yellow** Schemas that populate details once the Incident is closed
- **Dark Blue** Links to Taxonomy and Mapping files used to populate particular field values
- **Red** GovTalk Person and Address Detail Schemas



## 3.2 Schema Implementation Details

### 3.2.1 E-Government Schema Guidelines

All the schemas used to represent the XML Information Model comply with version 3 of the UK GovTalk XML Schema Guidelines, and have been validated using the schemaQA.xslt stylesheet (See Appendix D).

For further information on GovTalk standards refer to:

- <http://www.govtalk.gov.uk/schemasstandards/developerguide.asp>
- e-Government Schema Guidelines for XML  
[http://www.govtalk.gov.uk/documents/schema-guidelines-3\\_1\(1\).pdf](http://www.govtalk.gov.uk/documents/schema-guidelines-3_1(1).pdf)
- Technical Standards Catalogue Version 6.1  
[http://www.govtalk.gov.uk/schemasstandards/egif\\_document.asp?docnum=910](http://www.govtalk.gov.uk/schemasstandards/egif_document.asp?docnum=910)

All schemas also contain a metadata section that is based on the Government Metadata Standard:

(<http://www.govtalk.gov.uk/documents/eGovMetadataStandard%2020040429.pdf>)

### 3.2.2 Fire and Rescue Schema Guidelines

All the schemas and XML artefacts used to represent the XML Information Model comply with the Fire and Rescue e-Transformation XML Standards:

- e-Fire XML Information Model Guidelines and Best practices:  
<http://www.e-fire.gov.uk/download/53>  
<http://www.e-fire.gov.uk/download/62>

### 3.2.3 Message and Architectural Schemas

The FRS Incident schemas have been constructed using the separate Message and Architectural schemas principle. For this application the FRSIncidentMessages-v1-0.xsd schema is the only Message schema. This is the only incident schema that contains root elements, which provides a realisation of the Incident data, which are reused within the xml web services, website file extract and online forms.

The rest of the schemas provide complex structures and simple types that are used within the message schemas to create the required Incident structure. This has been designed to maximise the possible re-use of the data structures.

### 3.2.4 Schema Reuse

The F&RS Incident schemas make use of the Government Data Standards Catalogue (GDSC) schema types wherever possible. The following table indicates where these types have been reused.

GDSC Schema	Type Used	Used For	Used In Schema
CommonSimpleTypes-v1-3	YesNoType	A number of situations where a yes/no answer is required	FRSIncident FRSIncidentFire FRSIncidentResource
PersonDescriptiveTypes-v1-1	GenderCurrentType	Specifying the gender of a victim	FRSIncidentVictim
ReligionAndEthnicity-v1-0	EWethnicCategoryType	Specifying the ethnicity of a victim	FRSIncidentVictim
AddressTypes-v2-0	AddressValidationType	Extending the BSAddressStructure to indicate how an address has been validated	FireTypes
BS7666-v2-0	BSAddressStructure	Within the LocationStructure to allow use of this address structure	FireTypes
BS7666-v2-0	CoordinateStructure	Adding coordinate information (Easting and Northing) onto a given Location.	FireTypes

The FireTypes-v1-0.xsd schema contains a number of types and structures that can be reused across F&RS projects based on convergence product definitions. The schema has been defined to contain Convergence driven definitions that can be used across Fire and Rescue Projects including the future Regional Fire Control solution.

### 3.2.5 Lists - Enumerated Values

Very few elements of the data used within the Incident Recording System are free-form text questions; instead the majority of the values are selected from lists of possible options. These lists of available options for each question are defined within the 'Appendix C - FRS Incident Schema - Lists - v1-0i.doc' document (supplied in the 'source' directory). These values are implemented as enumerated types within the schemas with annotations.

The lists would be rendered on the web pages as drop down list entries from which the user would select their required option. This has the advantage of preventing the user from entering invalid data, and it is important to ensure the schemas place the same constraints over the allowable data.

If a list has an "Other" option defined, then an additional attribute 'Other' should be populated in order to capture the manually entered value. This is important to ensure

that this data can be analysed to decide whether new list entries are required in the future.

As the descriptions detailed in the lists document are quite long and likely to change, code values have been assigned to each entry. With v1-0 of the schemas the code values are fixed, and it will be these that will be stored in the XML data.

For each of these enumerated types, the schemas define a series of enumeration entries, with each value matching one of the valid codes. The annotation description associated with each enumeration entry contains the current display text for the code value, so that all the information is present in the schema.

Note: This principle adds a lot of information to the XML Schemas, but has been added for clarity to assist internal FRS forms and web services development. This will enable much tighter validation at the 'client' side before sending Incident data to FRSD. However, it does take some flexibility away from rapidly changing values. Code values can never be altered, so the most common changes will be description values and additions of new codes. This should not present a problem in use and rollout of changes.

For cases where there are drop-down list requirements that also have category values associated with code values (for example IgnitionSource [PFIgnitionSourceType in the FRSIncidentFire schema]) the category value is stored within the 'appinfo' section of the schema annotation information.

Storing the code values in the XML data, although meaning that the XML will not be as easily readable, has a number of advantages, in that it is not susceptible to changes in the description values, it reduces the amount of data being transmitted as some of the descriptions are quite long, and it stops the duplication of information that would occur if both details were included.

It should also be noted that the enumeration lists have been placed in the order that they should be displayed. This will mean in some situations that the more common values are placed at the top of the lists.

### 3.2.6 Simple Data Types

The schemas have been designed to be very 'strongly typed'. There has been extensive use of schema data type constraints and restrictions within the schemas. All elements have had restrictions added to display relevant length information where possible. This is to assist those that may need to store information into fixed field databases.

### 3.2.7 Restrictions and Patterns

Where ever possible restrictions have been used to override schema default data types with specific simple data types for the XML information model. The data types generally place restrictions such as: upper or lower case, lengths, ranges, restricted character sets, and so on.

The following are examples of sophisticated data type restrictions that have regular expression patterns applied:

- |                       |  |
|-----------------------|--|
| • Postcode            | Only character formats supported by Post Code Address (PAF) File                       |
| • National Call-signs | Based in the Convergence product definitions defining the series of characters allowed |
| • VRM                 | Vehicle Registration Mark (Only valid formats)   |
| • VIN                 | Vehicle Identification No. (Only valid formats)  |

### 3.2.8 Dates and Times

All dates and times conform to the W3C XSD standard formats.

### 3.2.9 Complex Data Types

In general the schema data types have been designed based on a native XML document-centric processing model. They have not been defined from an existing software code implementation such as, Microsoft .NET, J2EE or legacy wrapping technologies.

Note: There may be issues with some development environments, which are unable to easily manipulate schema structures e.g. GovTalk BS7666 Address structure schema. There may be some software “binding” frameworks that cannot handle the choice structures or field restrictions used. However, most development environments can support document-oriented programming to overcome these problems. The Microsoft .NET 2.0 Framework and the J2EE Axis 1.4/2.0 Version WSDL proxy generators have been tested with the Schemas. Refer to the Web Services Document for further detail.

## 3.3 Taxonomy/Hierarchy Control

A number of data sections within the schemas are defined as optional sections due to the lack of capability to undertake cross-element validation within the schema syntax. The population of the optional data sections is dependent upon values within particular key elements.

To overcome this limitation the decision was made to control the population of some data sections with Taxonomy control XML files. This technique has been employed where it was felt that key data decisions were required, but also complex hierarchies of data were necessary.

There are currently four main controlling Taxonomy files, and a further two taxonomy mapping files used to assist in the initial population of complex hierarchies for users to select from within online forms.

The four key files controlling data entry are:

- Mobilise Incident Type (At Call)

- Property Type (For Fires and False Alarms)
- Special Service Type
- False Alarm Reason

The other two Taxonomy mapping files are only defined for possible use in assisting the display of complex hierarchies of data to aid online form users or defaulting values:

- Mapping file of Mobilise Incident Type to appropriate Special Service Type structure
- Mapping file of Mobilise Incident Type to appropriate Property Type structure

These files are primarily used to reduce the number of possible options presented to a user for selection. For example, if the Incident Type was 'Building Fire' then it is only necessary to present the Building related Property Types.

### 3.3.1 Incident Type based Data Entry

Population of some data sections will be dictated by the 'MobiliseIncidentType' and its associated 'GenericType' attribute. The 'GenericType' attribute is used to map to the appropriate default 'IncidentCategory' ('IncidentOnAttendance'). The 'GenericType' element is defined in a Mobilise Incident Type Taxonomy file, and the latter element has three values: 'Fire', 'SpecialService', or 'FalseAlarm' defined initially by mapping the GenericType – Refer to "Incident On Attendance" section below.

If the IncidentCategory field value is set then the appropriate (similarly named) major data structure must be populated.

Note: It is possible to have an RTC or Hazmat type Incident that requires the Fire and SpecialService structures to be populated. The FalseAlarm structure can only ever exist on its own.

There are additional Incident data structures that are dependant on various values:

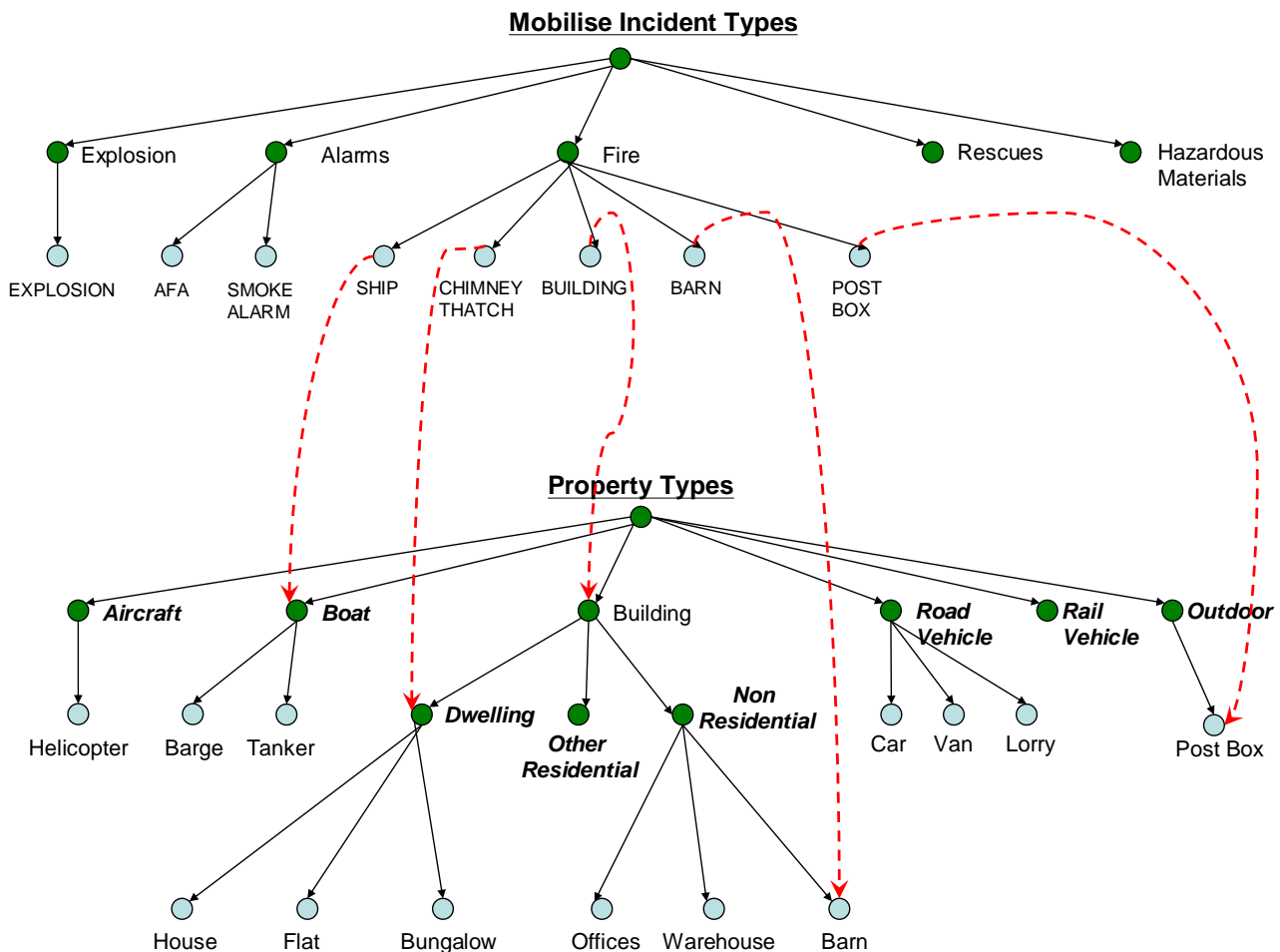
- **Evacuation Assistance** information is currently only mandatory for 'IncidentCategory' of 'Fire', that is also a Primary Fire ('IsPrimaryFire' = 'yes') for a Dwelling ('PropertyCategory' = 'Dwelling').
- **Hazardous Materials** details are only mandatory for 'IncidentCategory' of 'SpecialService' with a 'MobiliseIncidentType' that has an 'GenericType' attribute of 'HM=Hazardous Materials', or that the user has indicated a 'Fire' incident involving Hazardous Materials. These decisions are made using the 'IsHazardousMaterialsInvolved' field.
- **RTC** details are only required if the IsRTC field has been set to 'yes' for 'SpecialService' or a 'Fire'.
- **Resource Usage** - Equipment resource details should only be entered for 'IncidentCategory' of 'Fire' and 'SpecialService'.

The Mobilise Incident Type Taxonomy value has associated attributes of information. Once the MobiliseIncidentType value has been selected, there are key attributes attached. One element is the 'Priority' (1=High, 5=Low) of the Incident, which needs to be recorded against the Incident. It is expected that the future Regional Fire Control system will set different values for the priority based on: 'IncidentAtCall' and 'IncidentOnAttendance'.

The second attribute already mentioned is the 'GenericType'. The final important attribute is the 'ForNationalStatisticsUse', which decides whether the taxonomy value can be used by the IRS system. Some of the values may be used by RCC, but the IRS system is only interested in incidents that are actually attended.

There is also a complex relationship between the 'MobiliseIncidentType' and the 'PropertyType' for Incidents. This is managed with the Taxonomy Mapping file that provides an entry point into the 'PropertyType' Structure. This will attempt to set the appropriate PropertyType value.

The following illustration highlights some examples of the relationships that are defined in the Taxonomy and Mapping files.



Note: There is also a similar Taxonomy Mapping file to link the Mobilise Incident Types to the Special Service Types.

### 3.3.2 Fire based Data Entry

For 'Fire' Incidents there is currently a decision as to whether a fire is classified as a 'Primary', 'Secondary' or Chimney Fire. This is based on the settings of other elements of information that identify which type of fire is appropriate.

The 'IsPrimaryFire' value will not be set for 'IncidentCategory' of 'SpecialService' or 'FalseAlarm'. It can only be set to 'yes/no' for 'Fires'.

The 'IsPrimaryFire' value should be set based on the following series of rules:

- If there is a Victim involved (whether the 'VictimType' is Fatality, Casualty, Uninjured (rescued) or extricated) then 'IsPrimaryFire' is set to 'yes'.

#### **[A Primary Fire]**

- If the number of Vehicles (appliances) mobilised is 5 or more then 'IsPrimaryFire' is set to 'yes'. **[A Primary Fire]**

- The 'PropertyType' selected has the 'IsPrimaryFire' attribute defaulted to 'yes' or 'no' based on the associated attribute within the Property Type Taxonomy file.

- If the PropertyType selected has the 'IsPrimaryFire' attribute of 'yes' and there were no VictimsInvolved and there were less than 5 appliances deployed then:

- If the (IsChimneyFire is set to 'no' or the PropertyType is not a Building) and (IsDerelict is set to 'no') then 'IsPrimaryFire' is set to 'yes'.

#### **[A Primary Fire].**

- If the 'IsDerelict' element has been set to 'yes', then the 'IsPrimaryFire' is set to 'no'.

#### **[A Secondary Fire]**

- If the IsChimneyFire is 'yes' then the 'IsPrimaryFire' is set to 'no'.

#### **[A Chimney Fire]**

- If the PropertyType selected has the 'IsPrimaryFire' to 'no' and there were no VictimsInvolved and there were less than 5 appliances deployed then 'IsPrimaryFire' is set to 'no'.

#### **[A Secondary Fire]**

If the Fire is a 'Secondary' or 'Chimney' Fire then it is not necessary to enter any further detailed PropertyCategory related fields of information defined in the following sub-sections.

The following table and pseudo code are included to provide further assistance in understanding the logic associated with setting of IsPrimaryFire and the Classification.

## 1. Table Format

Q3.5 - WereVictims Involved?	Q3.7 - NumberOf Appliances	Q3.2 - PropertyType (IsPrimaryFire attribute)	Q3.8 – IsDerelict	Q5.1a – IsChimneyFire (Buildings Only)	IsPrimaryFire setting based on rules	Fire Classification
Yes	Any	Any	No	No	Yes	Primary
Any	>=5	Any	No	No	Yes	Primary
No	<5	Yes	No	No	Yes	Primary
No	<5	Yes	Yes	No	No	Secondary
No	<5	Yes	No	Yes	No	Chimney
No	<5	No	No	No	No	Secondary

### Notes:

- The 'pink' cells indicate the key decisions that define the Fire Classification.
- The 'greyed-out' questions are not asked, but defaulted to 'no' as they are not relevant for the Fire.
- 'Any' refers to any value permitted by the schema.
- isDerelict is only asked/permited for PropertyTypes that have IsPrimaryFire attribute set to 'yes' .
- isChimneyFire is only asked/permited for Buildings that are not Derelict.

## 2. Pseudo-Code

The Error Numbers relate to errors that check for each of the scenarios.

```

If IncidentCategory = "Fire" Then
  If victimsInvolved = yes Then
    IsPrimaryFire = 'yes' [Primary Fire] Error 3232
  Else
    If NumberOfAppliances >= 5 Then
      IsPrimaryFire = 'yes' [Primary Fire] Error 3232
    Else
      If PropertyType(IsPrimaryFire) = "yes" Then
        If (IsChimneyFire = "no" or BuildingStructure not present)
          and IsDerelict = "no" Then
          IsPrimaryFire = 'yes' [Primary Fire] Error 3232
        Else
          If IsDerelict = "yes" Then
            IsPrimaryFire = 'no' [Secondary Fire]
          Else
            If IsChimneyFire = "yes" Then
              IsPrimaryFire = 'no' [Chimney Fire] Error 3245
            Else
              IsPrimaryFire = 'no' [Secondary Fire] Error 3246
            End If
          End If
        End If
      End If
    Else
      IsPrimaryFire = 'no' [Secondary Fire] Error 3232
    End If
  End If
End If

```

To Analysis Fire Incidents the following fields should be checked to decide on the classification of the fire:

- **Primary Fire** - IsPrimaryFire = 'yes'
- **Chimney Fire** - IsChimneyFire = 'yes'
- **Secondary Fire** - IsPrimaryFire = 'no' and IsChimneyFire = 'no'



### 3.3.2.1 Primary Fire Property based Data Entry

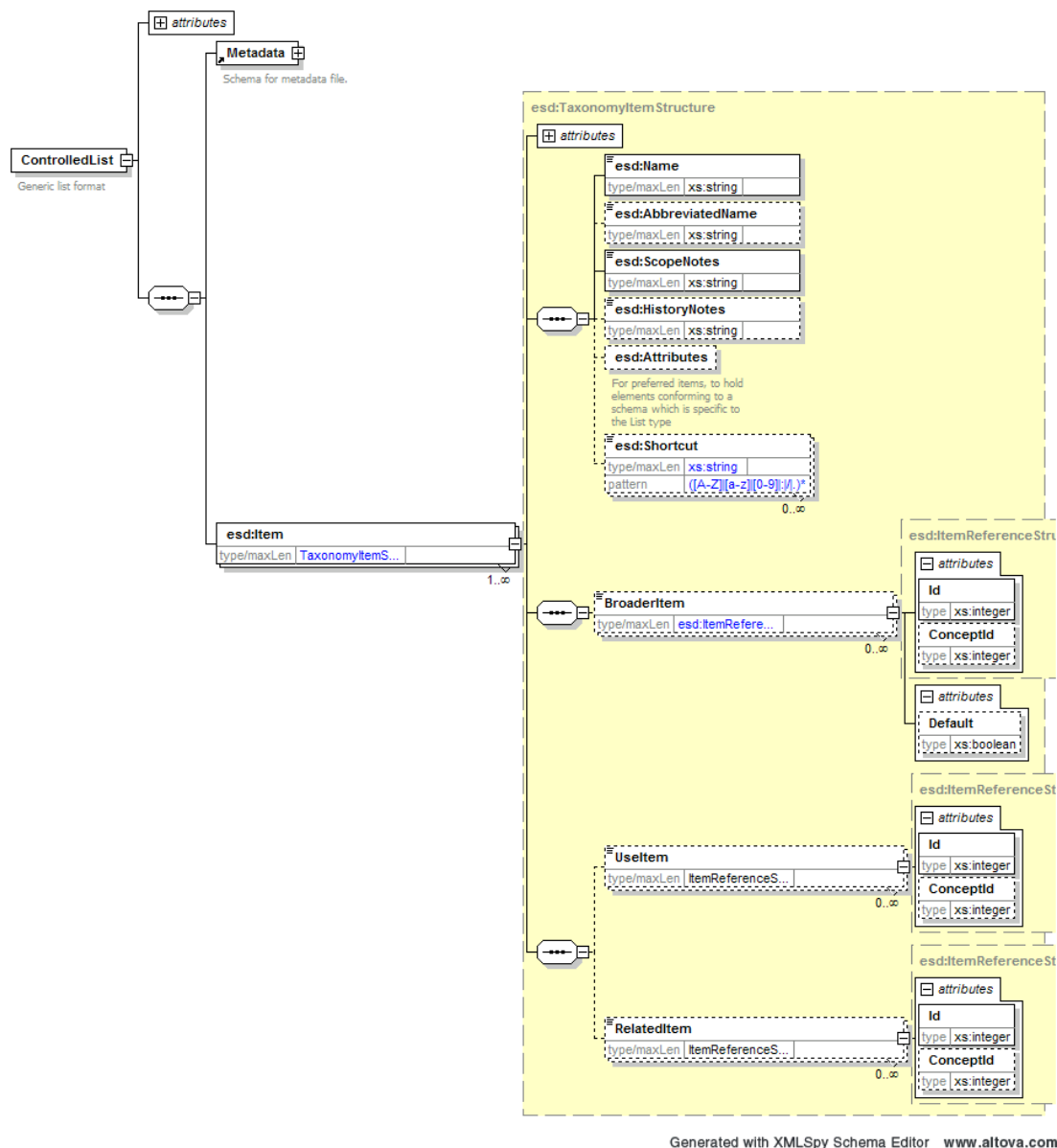
For 'IsPrimaryFire=yes' Incidents there is further level of data entry control based on collecting Property Type related information. The Property Type is defined through two steps:

- **Mobilise Incident Type Mapping to Property Types** – Use the Mobile Incident Type within the mapping file to derive the appropriate 'PropertyType' value that should be used as the start point within the 'PropertyType' hierarchy (Taxonomy) - This is intended for online forms data entry.
- **Property Types Taxonomy** – The value above controls the start point, but the FireOfficer must select a particular detailed 'PropertyType' value. The 'PropertyType' value has an attribute deriving the appropriate categorisation of the property, which is used to control further data sections to be entered. This is defined with an attribute against the 'PropertyType' value called 'PropertyCategory': 'Dwelling', 'OtherResidential', 'NonResidential', 'RoadVehicle', 'RailVehicle', 'Aircraft', 'Boat' or 'Outdoor'.

### 3.3.3 Taxonomy file structures

The Taxonomy files are based on the 'esd-toolkit' created for public sector use. Each taxonomy entry is identified with an 'Item ID', 'Item Concept ID', 'Name' and a 'Short Description'. The only values that can be recorded against the Incident data are entries that have matching 'Item ID' and 'Item Concept ID' values and are not BroaderItem's for other Item's (i.e. leaf nodes). All other values exist purely to enable hierarchy relationships.

Each 'item' entry can then be linked to 'Broader items'. These relationships form the hierarchy of data. It is also possible to have entries that are 'Preferred term' entries that link to 'Item Concept ID' entries. This allows very flexible navigational structures.

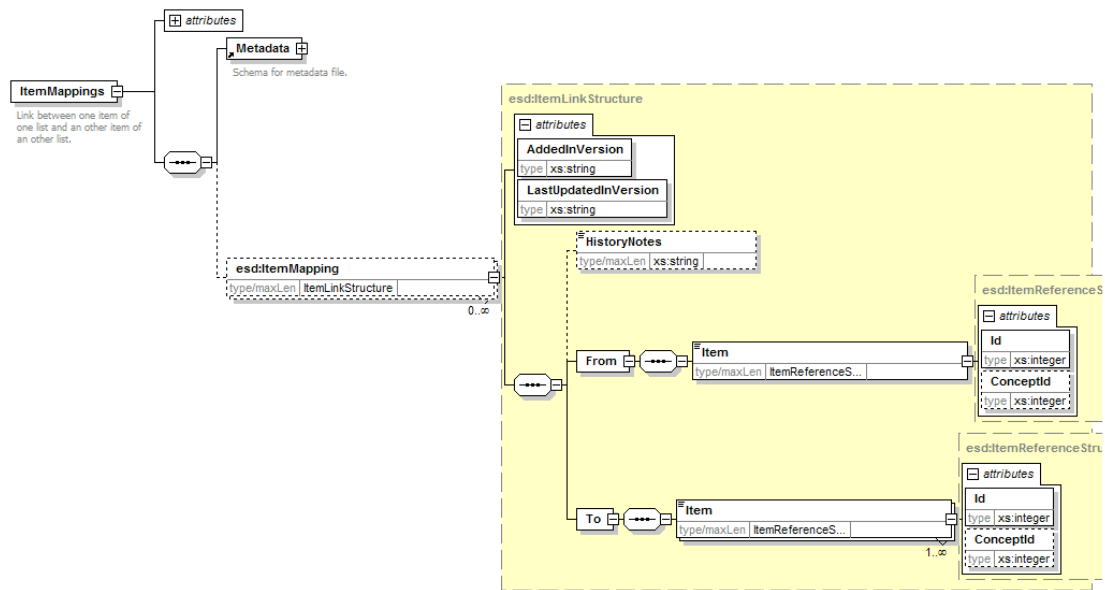


Note: 'Preferred term' definitions have not been defined at this stage, but will be reviewed annually.

Note: The Taxonomy also allows values to be recorded in the structure, but will not be offered to the users for selection (obsolete set to 'yes'). This technique may be used for data entries required to assist data migration from the existing system data values, but not to be used for data entry into the new system. This will enable comparable statistics to continue to be captured.

### 3.3.4 Taxonomy mapping file structures

The 'item Concept IDs' are used within the taxonomy mapping files to cross reference to other Taxonomy ID's e.g. 'MobiliseIncidentType' to 'PropertyType'. The mapping files are simply links between the two Taxonomy file identifiers.



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

For an example fragment of an XML file refer to Appendix A.

### 3.4 Schema Structure details

This section presents more detailed information about the structure of the Incident Schema XML model.

For the full details, please refer to the schemas themselves, or the generated documentation ([FRSIncident-v1-0.html](#)).

The diagrams in the following sub-sections provide a graphical view of the elements and their relationships. The conventions used within the diagrams are as follows:

- Dotted lines around an element indicate optional components
- Elements that can occur any number of times are indicated by the '0..∞' (zero to infinity) text underneath the element
- The  symbol indicates a sequence, and the child elements must occur in the stated order
- The  symbol represents a choice, and only one of the child elements (or series of elements) can occur in the data.

Each of the diagrams illustrates each XML structure along with some details about the data restrictions that apply. Some elements will have length restrictions (MaxLen), validation restrictions (regular expression patterns), value ranges (Min and Max Inclusive). All fields that are supported with enumerated list are not displayed in this document, but can be found in the XML Schemas or the XML Schema generated documentation.

Note: As the XML schemas are heavily annotated, only key aspects required for understanding the schemas are described within this document, or any additional business rules that need to be applied.

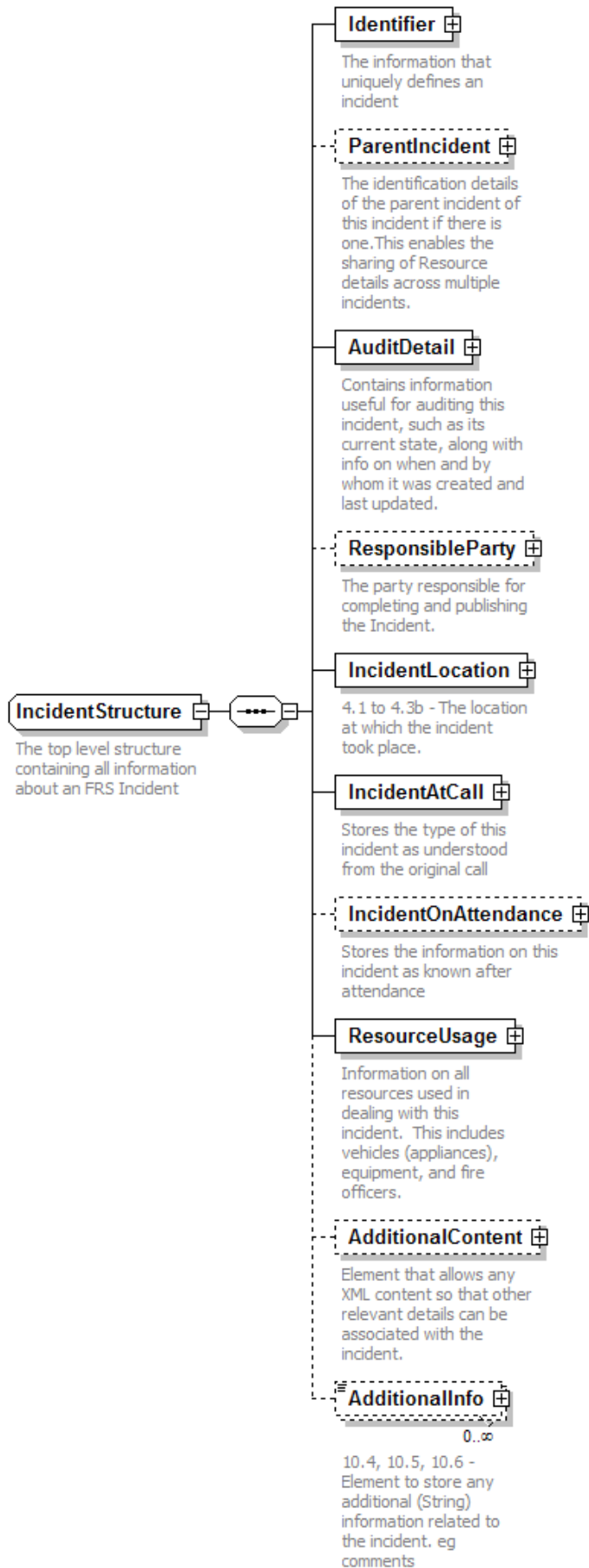
#### 3.4.1 Incident

The Incident structure represents the top level of the data model, and is contained within the FRSIncident-v1-0.xsd schema. This is the structure used within the message schema to provide a defined message for use by Online Forms, XML Web Service operations or the website Extract file process.

The majority of the immediate child elements of this structure (shown below) can be entered for every type of Incident.

It is anticipated that a number of sections at this level could be populated from an FRS Command and Control systems or the future Regional Fire Control system at the time of handling the initial mobilisation call. Relevant data structures that could be pre-populated are highlighted in green on the UML diagram illustrated earlier in the document.

Note: It is also anticipated that the Regional Fire Control system may be able to populate the 'IncidentOnAttendance' data for 'FalseAlarms'.



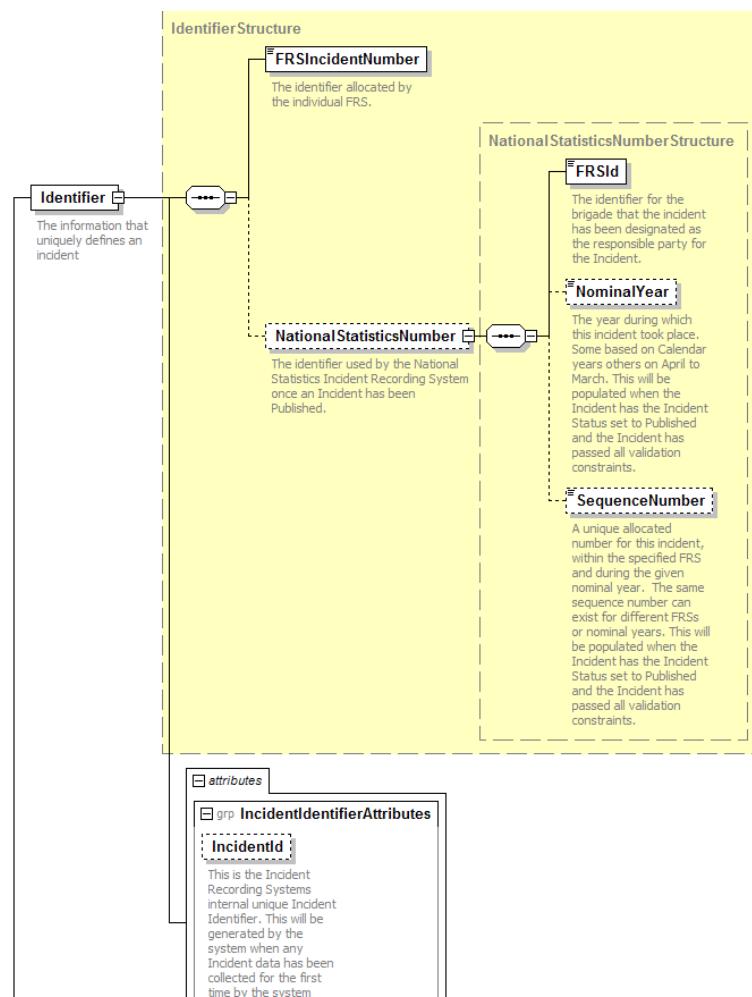
### 3.4.2 Identifier(s)

The Identifier structure is used to provide the details that identify an Incident. The same structure is also used to indicate the parent incident that applies to a given incident if there is one. An Incident can only be a parent or a child, but not both.

Note: The Parent/Child relationships are not currently supported for the IRS system.

The Identifier structure contains three identifier details:

- 'IncidentId' – unique identifier generated by the IRS system and returned when the record is inserted to the IRS system.
  - The 'FRSIncidentNumber' allocated by the FRS as their own system identifier.
  - The 'NationalStatisticsNumber' allocated by the IRS system when the IncidentStatus is set to '70=Published' or '75=Published with Conditions' and has been transferred to the 'Published Incident Database'. The Nominal Year and Sequence Number are allocated at this point by the IRS system.
- Note: The FRSId would be set by the IRS system when the Incident recorded is inserted to the IRS System.



As shown in the diagram above, the NationalStatisticsNumber is broken down into three fields:

- FRS Region/Sub-Region (FRSId) – based on the convergence Region and Sub-Region codes – refer to 'Appendix C - FRS Incident Schema - Lists - v1-0i.doc' document.
- Nominal year - four digits, broadly the year of the incident. For FRS's that start their Call numbers from 1 on 1st January, the year will be that of the calendar year for incidents from 1st Jan to 31st Dec. For brigades that start their Call numbers from 1 on 1st April, the year will be that of the government year when it starts on 1st April for incidents from 1st April to 31st Mar the following year.
- Sequence number (Call number) - a 12 monthly allocation in the range 00001-99999.

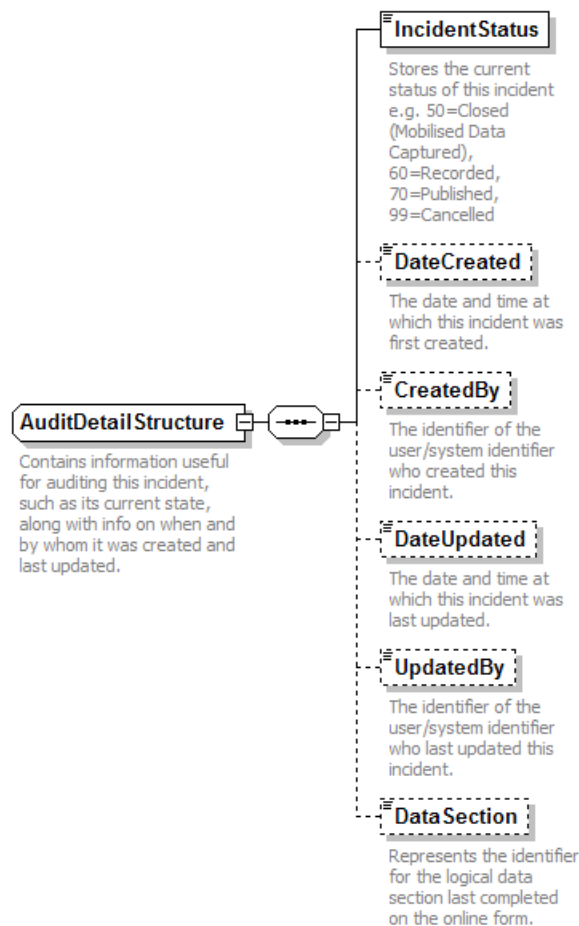
Note: The new Incident Recording System (IRS) will populate this information based on the authentication credentials when an FRS logs on to the system and Inserts or Amends a record as appropriate. This will reduce the overheads of the current manual incident number tracking and audit process operated with the current system.

### 3.4.3 Audit Details

The audit detail structure contains details to track the current state of the incident as it is being created and amended by FRS Command and Control systems, Regional Fire Control system and/or FireOfficers. This structure will record the 'IncidentStatus', creation and update date and times, along with the user identifier who made the change.

Note: The Created and Updated details will be populated by the IRS system. The 'DataSection' will be populated by the online forms software. The 'DataSection' will only be populated by the online forms mechanism due to an "auto-save" capability.

Note: The 'CreatedBy' and 'UpdatedBy' FireOfficer identifiers will be based on the convergence product call-sign identifiers.



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The Incident Status is used as different systems/people may populate different aspects of the Incident data at different points in time:

- |                            |  |
|----------------------------|--|
| Command and Control System | - Populate Status of '50=Incident Closed'  |
| FireOfficer                | - Populate Status of '60' once 'Incident OnAttendance' information has been recorded |



FRS QA/Reviewer

- It is anticipated that some FRS's will undertake a quality review of the data, or allow for the fact that further data is awaited e.g. Coroner information. The Status is set to '70=Published' or '75=Published with Conditions', which enables FRSD to use the information for statistics.

Note: Some Incidents may need to be cancelled as they are not appropriate.

The full list of 'IncidentStatus' values are:

10 - **"First Call"**

20 - **"Mobilised"**

30 - **"Arrived At Scene"**

40 - **"Under Control"**

50 - **"Closed"** - (Mobilise data captured) (Incident Closed)

55 - **"Closed with Queries"** - (Mobilise data captured)

60 - **"Recorded"** - (Incident fully recorded after the event by the FireOfficer)

65 - **"Recorded with Queries"** - (Incident recorded, but require QA/Review)

70 - **"Published"** - (Incident quality assured and ready for Publication)

75 - **"Published with Conditions"** - (QA'd e.g. Awaiting coroners report)

80 - **"Queried by National Statistics"** -  
(Statistics Team have raised a query for the FRS)

90 - **"Closed by National Statistics"** - (The Incident has been audited & closed.)

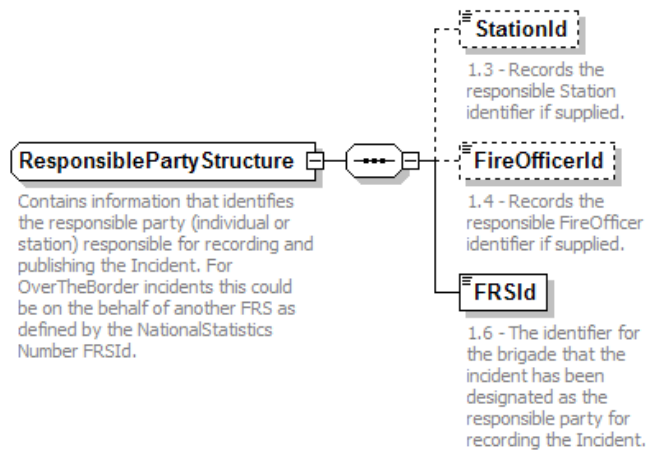
0 - **"Cancelled"**

Note: It is not possible to INSERT a record to the IRS system with an IncidentStatus as 80 or 90. Only CLG staff can set these status values.

### 3.4.4 Responsible Party

The ResponsiblePartyStructure contains details to assist with workflow aspects required by the IRS system. The structure is optional, but it is recommended that Command and Control systems populate at least the StationId element. The StationId is based on the convergence product definition. The FireOfficerId is the IRS user-id, which should be the FRS callsign.

Note: The FRSId will be automatically populated by the IRS System to record the FRS responsible for recording and publishing the Incident if the other details are not supplied.



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### 3.4.5 Location(s)

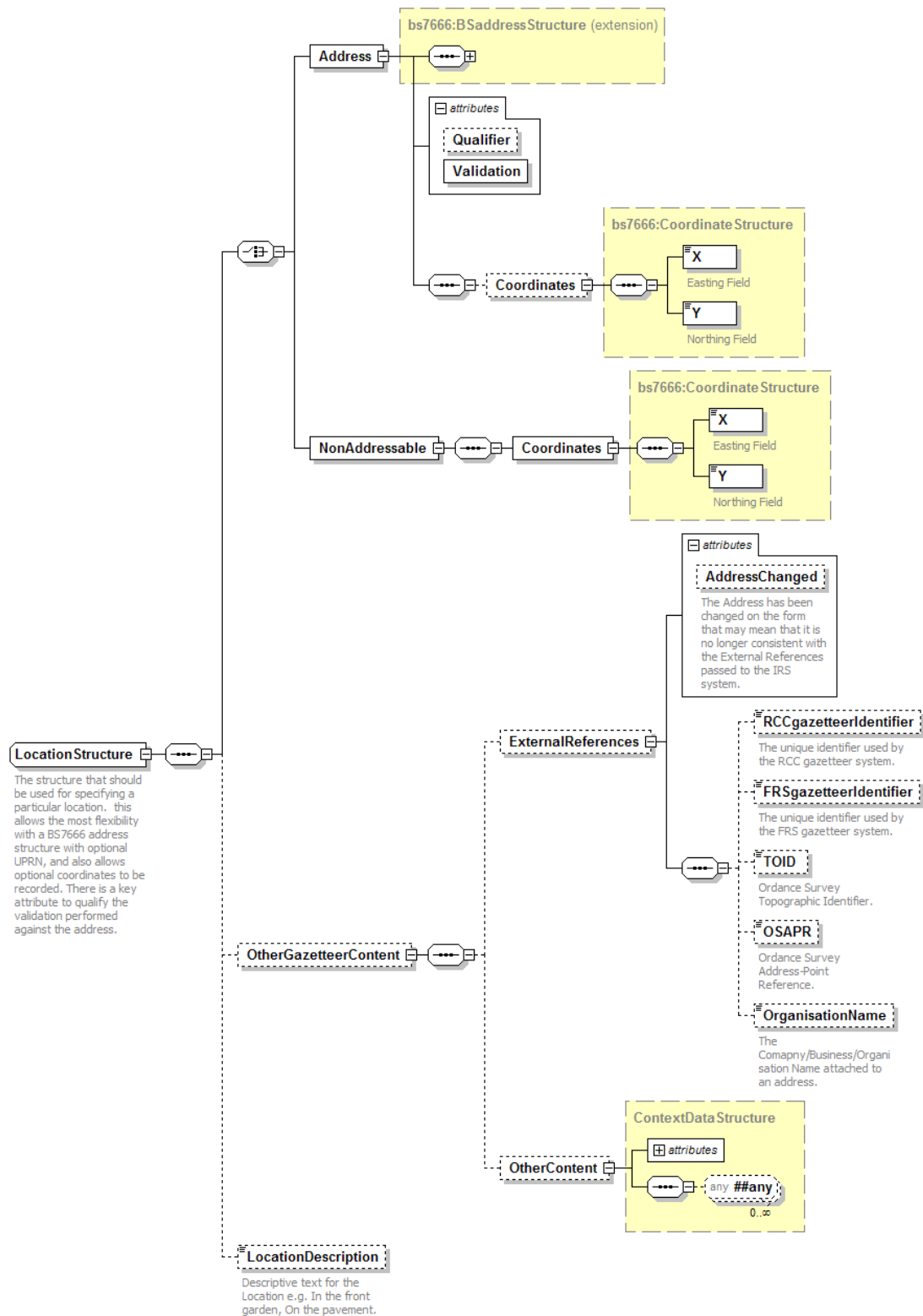
For each incident, the 'IncidentLocation' structure is a required element. This should specify the exact location at which the incident took place.

The Location structure is shown in the diagram below. This provides a large amount of flexibility over how a location is specified by using the BSAddressStructure from the GovTalk schemas. This allows either a BS7666 style address for Addressable objects (Property and Land), or GPS Coordinates for Non-Addressable locations (Eastings and Northings).

It is a project goal to use the NLPG data structure in order to enable the Unique Property Reference Number (UPRN) to be obtained when possible for Property Addresses. This structure has also been extended to optionally allow the entering of the specific coordinates of the location, and also to indicate how the address has been confirmed, using the Validation attribute (e.g. PAF-check-valid, NLPG-check-failed, NLPG-check-valid).

The GPS coordinates (Eastings and Northings) are far more appropriate for incidents that are not directly related to a Building Fire e.g. exact coordinates of an RTC (Road Traffic Collision) between Junction 20 and 21 on the M1.

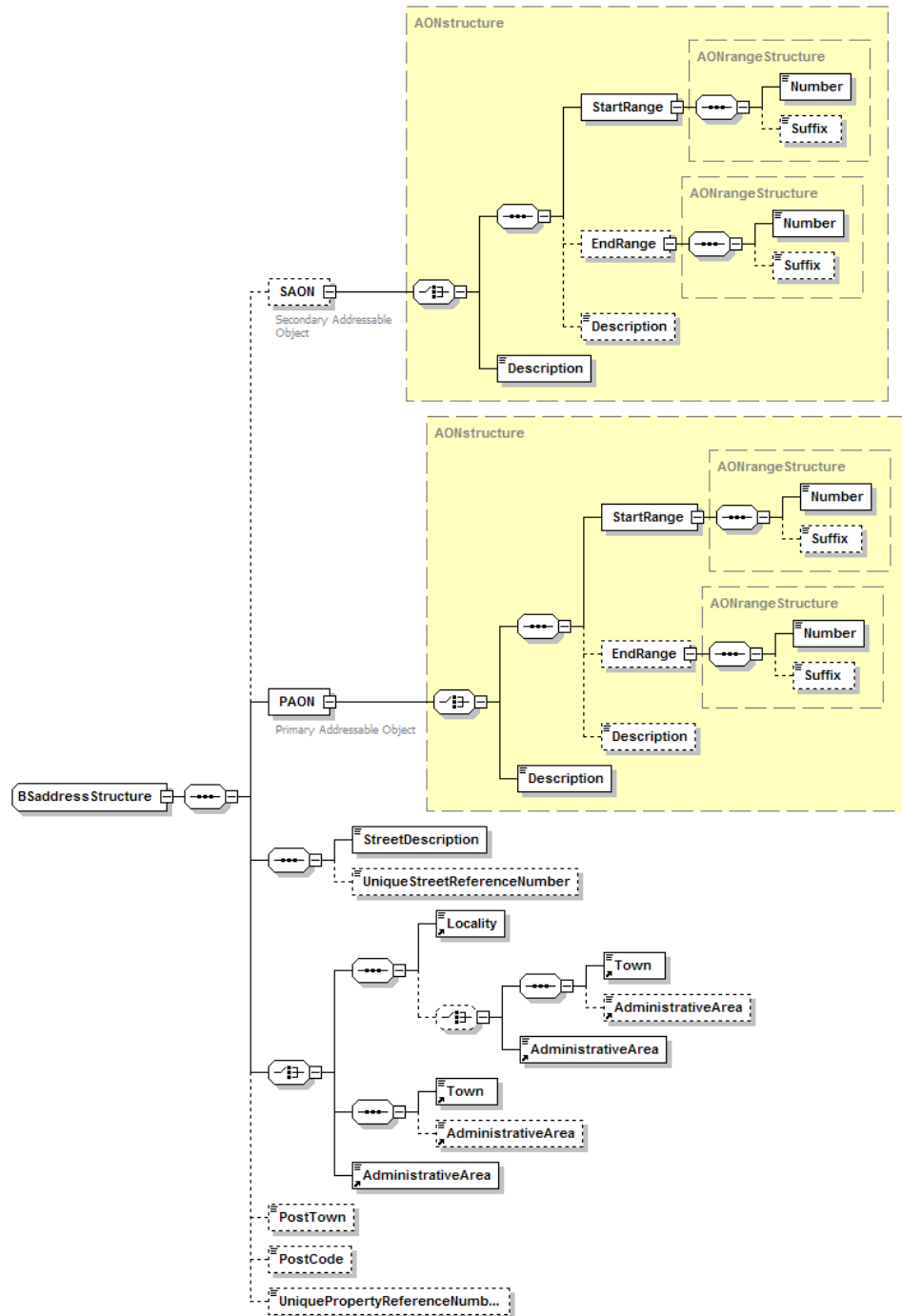
The data structure also enables the FRS to capture Gazetteer information if available. This will allow systems to cross reference data from their command and control systems.



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The following structure is a breakdown of the BS7666 address structure highlighted above.



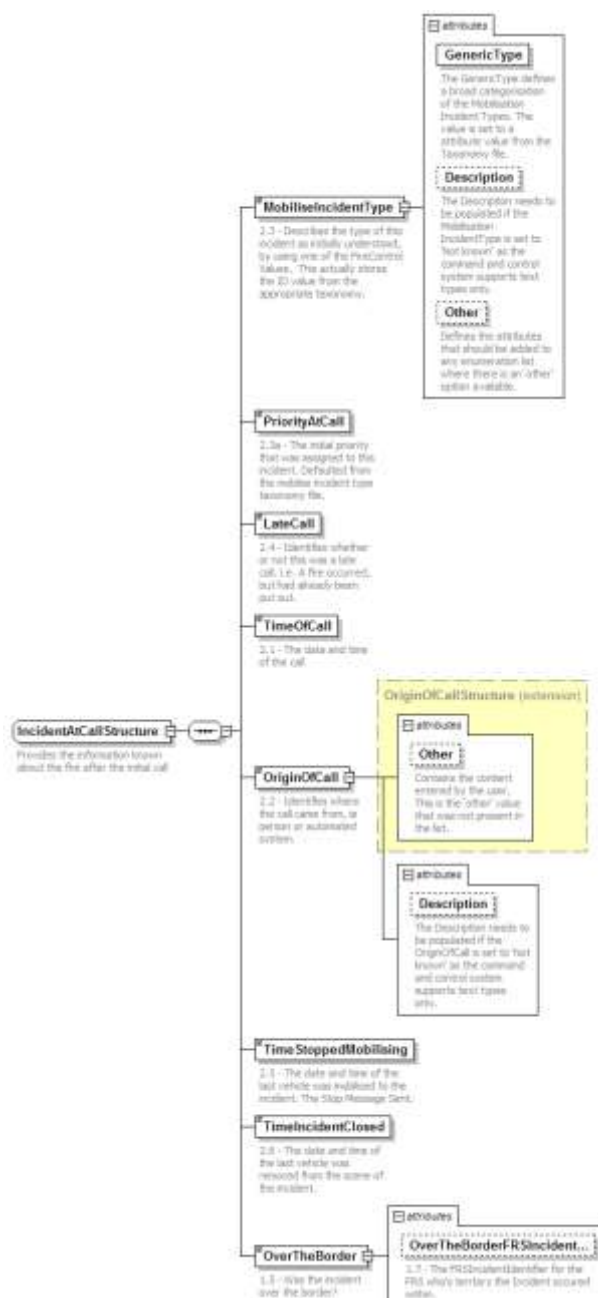
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### 3.4.6 Incident At Call

It is expected that the 'IncidentAtCall' information would be pre-populated by the FRS command and control systems via the XML Web Service.

It is anticipated that the 'MobiliseIncidentType' would be captured using the Taxonomy hierarchy. Once the 'MobiliseIncidentType' is selected it will default the 'PriorityAtCall', 'GenericType' and the 'ForNationalStatisticsUse' values from the Taxonomy file.

If the 'MobileIncidentType' selected is 'LATE FIRE CALL' (Id=49) the 'LateCall' must be set to 'yes'. There are situations when the Incident will be determined to be a 'Late Call' once the Fire Officer is at the scene. In this case the Officer sets the LateCall field to 'yes' manually.



Note: The 'OriginOfCall' is one of many fields that provide an 'Other' option. If this value is selected then the user will need to enter text value into the 'Other' attribute

above. This will allow review of values to see if new entries should be added in the future.

Some FRS Command and Control systems do not have codes for the Mobilisation Incident Type and OriginOfCall. Instead they have textual descriptions that are captured. These descriptions can be populated into the Description attributes and the code set to '0 = Not known'. This will allow the incident data to be pre-populated and then force the FireOfficer to select an appropriate code when completing the Incident information.

If the 'LateCall' value is set to 'yes' then the validation for the Date/Times below will vary. Normally The 'TimeOfCall' , 'TimeStoppedMobilising' and 'TimeIncidentClosed' should be chronological. However, 'the validation is not enforced for a 'LateCall = yes' Incident.

### 3.4.7 Incident On Attendance

It is expected that the 'IncidentOnAttendance' information would be populated by the command FireOfficer attending the Incident after the event.

The fields record information related to the information collected at the scene of the Incident by the command FireOfficer. Some details may be captured after the event. For example, it may be that a victim is initially a casualty, but becomes a fatality whilst in hospital.

The 'MobiliseIncidentType' captured at the 'IncidentAtCall' stage has an associated 'GenericType' of Incident. The values are used to default 'OnAttendance' IncidentCategory as 'Fire' or 'SpecialService' Incident. The FireOfficer may then change the value to 'FalseAlarm' if appropriate.

GenericType	Description	IncidentCategory
A	Alarms	Fire
E	Explosion	Fire
F	Fire	Fire
HM	Hazardous Materials	Special Service
R	Rescue	Special Service
CD	Civil Disturbance / Unlawful Act	Special Service
HA	Humanitarian Assistance	Special Service

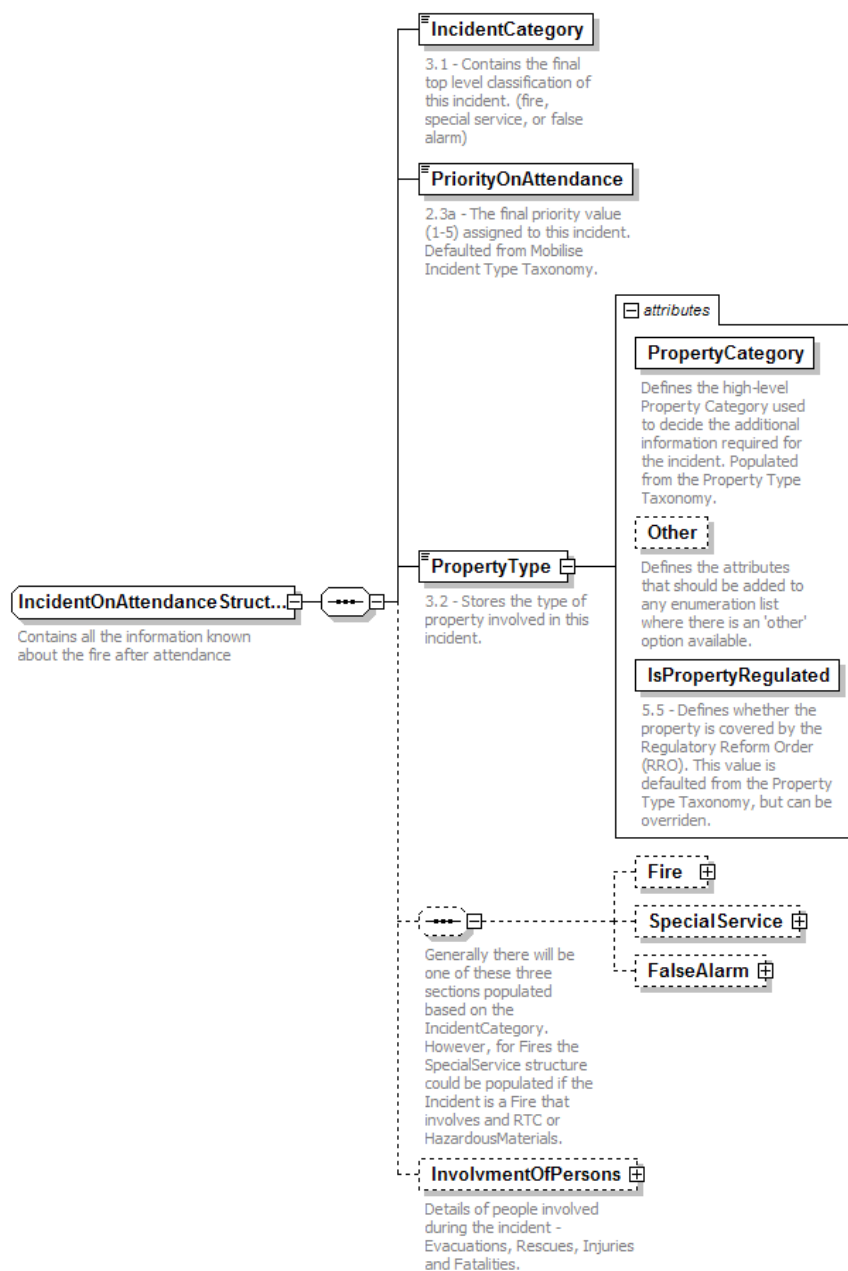
The 'MobiliseIncidentType' will also default the 'PriorityOnAttendance' value, however, this can be overridden if it needs to be different from the value entered at the time of the mobilise call.

The 'PropertyType' value needs to be captured for all types of Incidents. The setting of the 'PropertyType' value is controlled by a Taxonomy File. The Taxonomy file has some associated attributes that should be returned: 'IsPropertyRegulated = yes/no',

'Other = yes/no' indicator, 'PropertyCategory', 'IsRTC = yes/no' and 'IsHazMat = yes/no' indicators.

These attributes pre-populate 'IsRTC' and 'HazardousMaterialsInvolved' fields respectively on the Incident.

The main three groups of information: 'Fire', 'SpecialService' and 'FalseAlarm' (expanded in later sections) are usually decided by the value recorded in the 'IncidentCategory'. If the IsRTC or IsHazMat are set to 'yes' then the SpecialService structure will need to be populated. This is particularly relevant if an Incident is a Fire and an RTC and/or Hazardous Materials are involved.



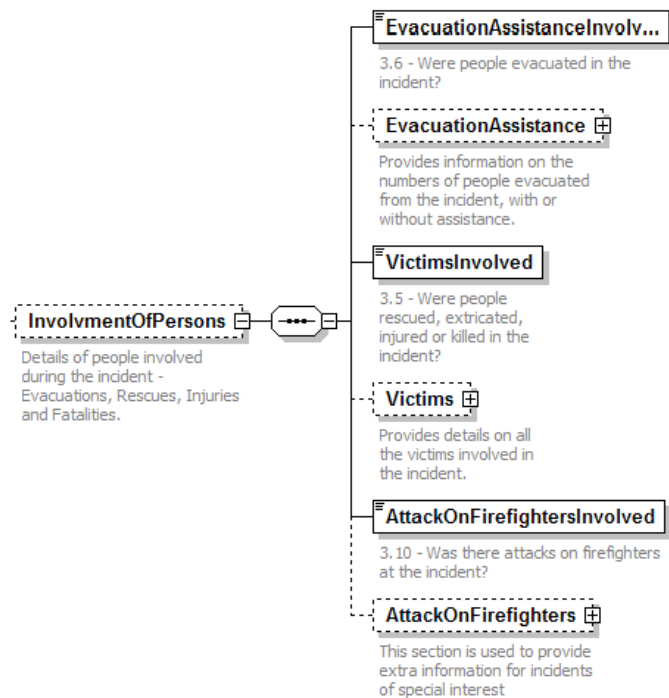
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### 3.4.8 Involvement of Persons

The InvolvementOfPersons structure captures information about people's involvement in the Incident: Evacuation Assistance involvement, Victims involved or Attacks on Firefighters.

Each of the low-level structures should only be populated if the associated 'yes/no' indicator has been set to 'yes'. This approach has been adopted to ensure that it is possible to differentiate between situations where the data is not yet captured and the situation where there is no data to be captured. This mechanism also simplifies the online forms processing.



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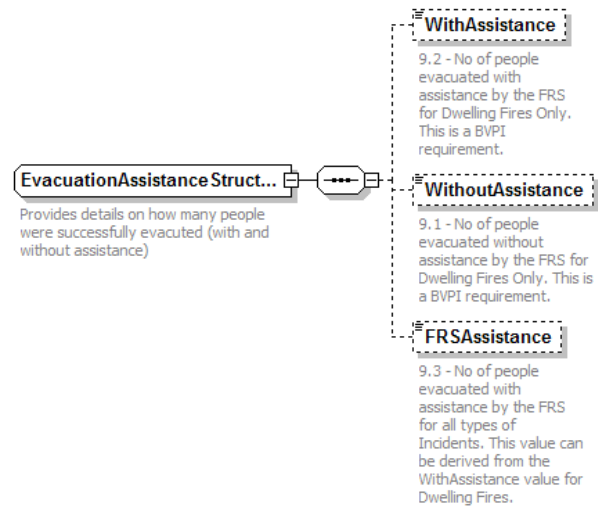
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### 3.4.9 Evacuation Assistance

The EvacuationAssistanceStructure is used to detail information on how many people have been evacuated from the scene of the Incident with or without assistance. The 'WithAssistance' and 'WithoutAssistance' elements must be present for Dwelling Primary Fires: 'IsPrimaryFire = yes' and 'PropertyCategory = Dwelling'.

The 'FRSAssistance' field must be populated for all 'Fires': 'IncidentCategory = yes'.

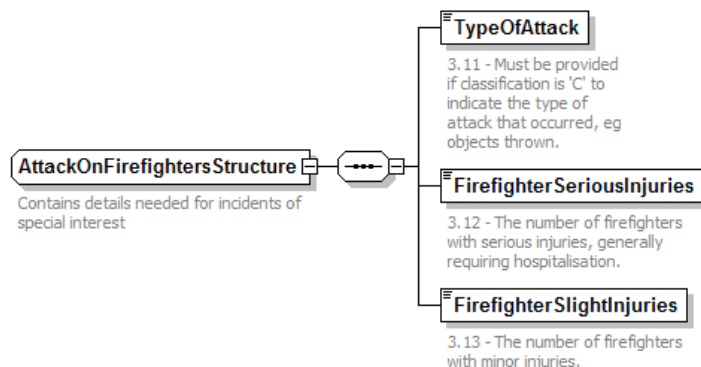


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### 3.4.1 Attacks on Firefighters

The AttacksOnFirefighters structure is only required if the Incident was identified as particular type of Special Interest Incident as defined by the Convergence Group definition. The details captured here are only those useful for statistical purposes and BVPI recording.

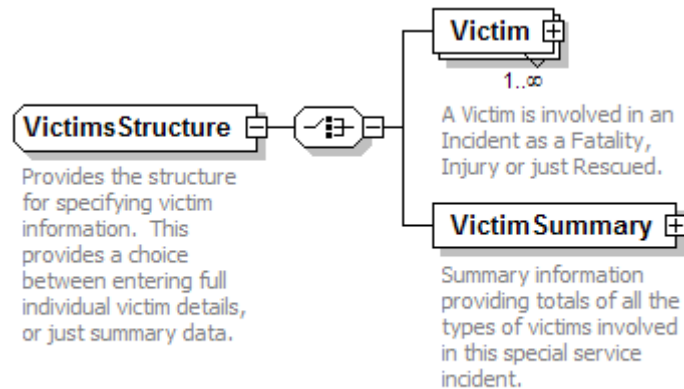


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### 3.4.2 Victims

The Victims structure is used to provide detailed information about victims involved in a 'Fire' or 'SpecialService' Incident. There are two choice structures: Victim or VictimsSummary. At this stage only the Victim specific details should be recorded.

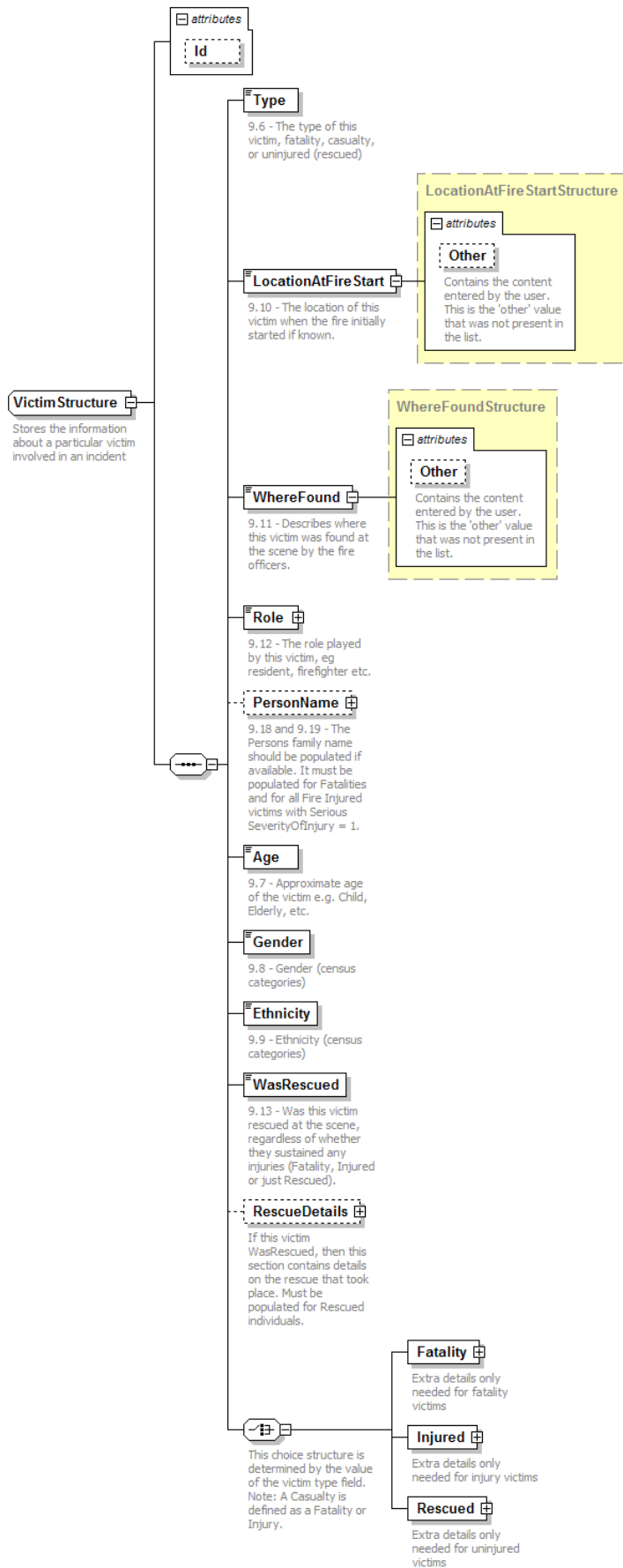


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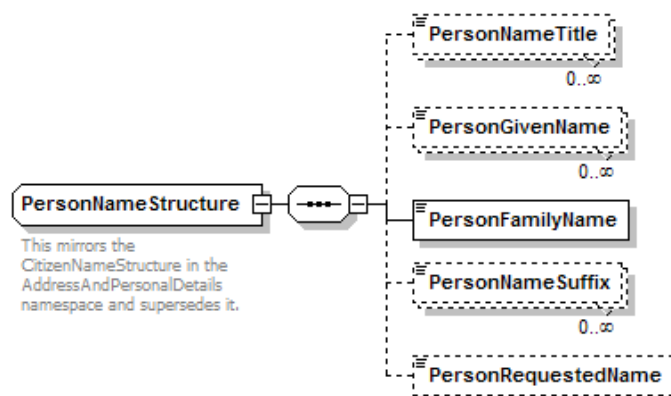
Note: The VictimSummary information is not currently required.

For each victim to be recorded there are a number of general details recorded (such as their role and the location they were found), but there are also some details that are dependant upon the type of the victim. This is why there are three separate structures contained within a choice block containing the extra details for 'Fatality', 'Injury', and 'Rescued' victims. Only one of these sections can be present in a conformant XML document, and this section should align with the value of the Victim Type field ('1 = Fatality', '2 = Injury', and '3 = Rescued').



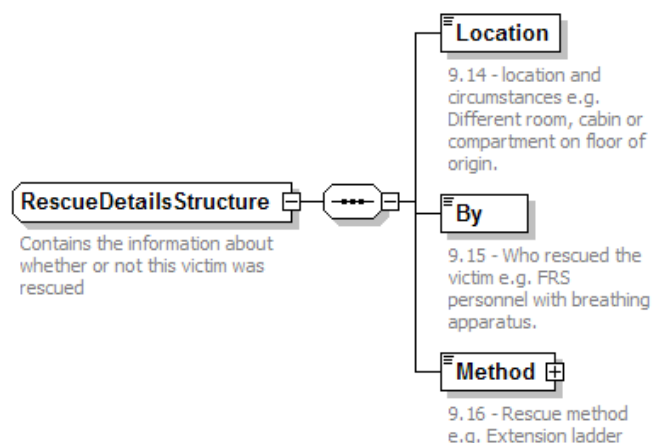
The following structure should be populated for most Victims. The various fields will be made available for all Victim details as optional fields. However, the forename 'PersonGivenName' and surname 'PersonFamilyName' must be populated for Victims with a 'Type' of '1 = Fatality' or '2 = Injury' for Fires that were of a serious nature only. This is checked by examining the 'SeverityOfInjury' field having a value of "1 = Victim went to hospital, injuries appear to be Serious".

It is expected that the full victim name details are recorded for firefighter victims – Victim Role is '1 = Firefighter'.



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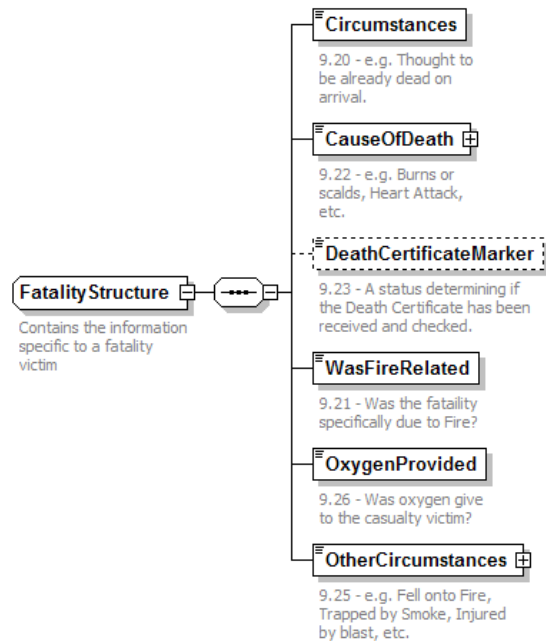
The following structure captures information about any Victim that has been rescued in some manner. If the VictimType is 'Rescued' then the 'WasRescued' must be set to 'yes' and the details must be entered. The Rescued details must be entered if 'WasRescued' is set to 'yes' in the main VictimStructure.



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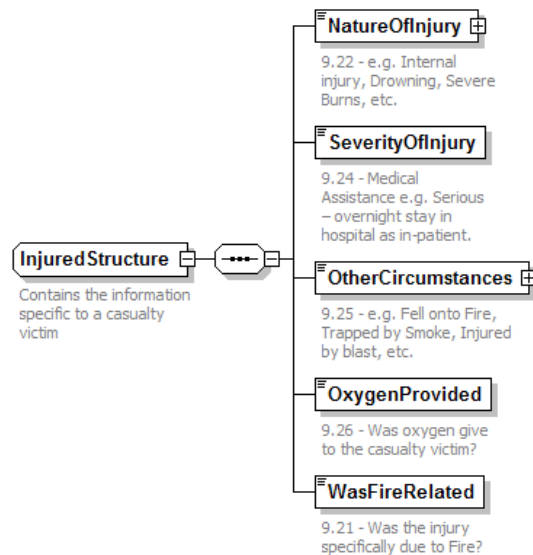
The following structure will apply if the VictimType is a '1 = Fatality'.



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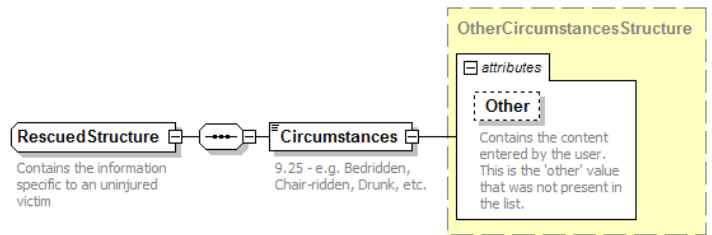
The following structure will apply if the VictimType is a '2 = Injury' (Casualty).



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The following structure will apply if the VictimType is '3 = Rescued' uninjured.



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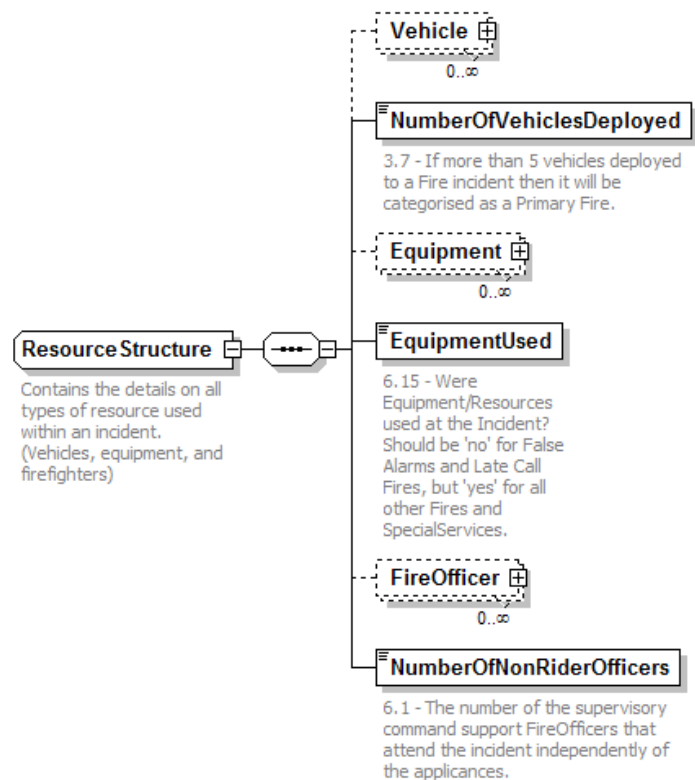
### 3.4.3 ResourceUsage

Any number of resources can be used to deal with each incident, with a resource being defined as a vehicle (fire appliance), equipment used/consumed, or a FireOfficer attended.

Two of the main data structures must be populated based on an indicator field being set appropriately:

- Vehicle(s) - NumberOfVehiclesDeployed (1 or more)
- Equipment(s) - EquipmentUsed set to 'yes'

The FireOfficer(s) structure is optional structure. However, the NumberOfNonRidingOfficers must be populated (can be set to zero).



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For each type of resource, a different set of information needs to be provided to identify the resource and how it was used. Each type of resource is optional, as it is possible that an incident has no equipment used, or even no vehicles attended e.g. 'late call' where a NonRiderOfficer attends to check the scene of the incident.

For the Vehicles and Equipment the data has been structured to capture the Type of resource used and a National RCC and/or FRS callsign of a particular resource. It is anticipated that the types and FRS callsign will be captured at this time, but the future Regional Fire Control System will populate the National RCC callsigns. However, it

would be recommended that if the Convergence definitions could be rolled out for the new IRS System, it would greatly improve the quality of data and analysis by all parties.

#### 3.4.3.1 Vehicle Resource

The Vehicle structure captures various elements of information related to the deployment of the vehicle appliance. It is necessary to identify the type of vehicle, callsigns, and the various timings of the vehicles movements.

In addition the 'IsDemountable' will assist in identifying elements such as Command Units that are Pods transported on Prime Movers or Tractor Units rather than actual vehicles in their own right.

It is also possible to enter separate 'DeploymentFrom' and 'DeploymentTo' Location if this is required. For example, a vehicle appliance may be deployed from the scene of another incident to the current incident. In addition the incident may be located at a sports stadium and require the vehicles to be deployed to a car park outside of the stadium. In this case the two locations would be different and both would be recorded. It is anticipated that many of these locations will be captured with Geo-coordinates.

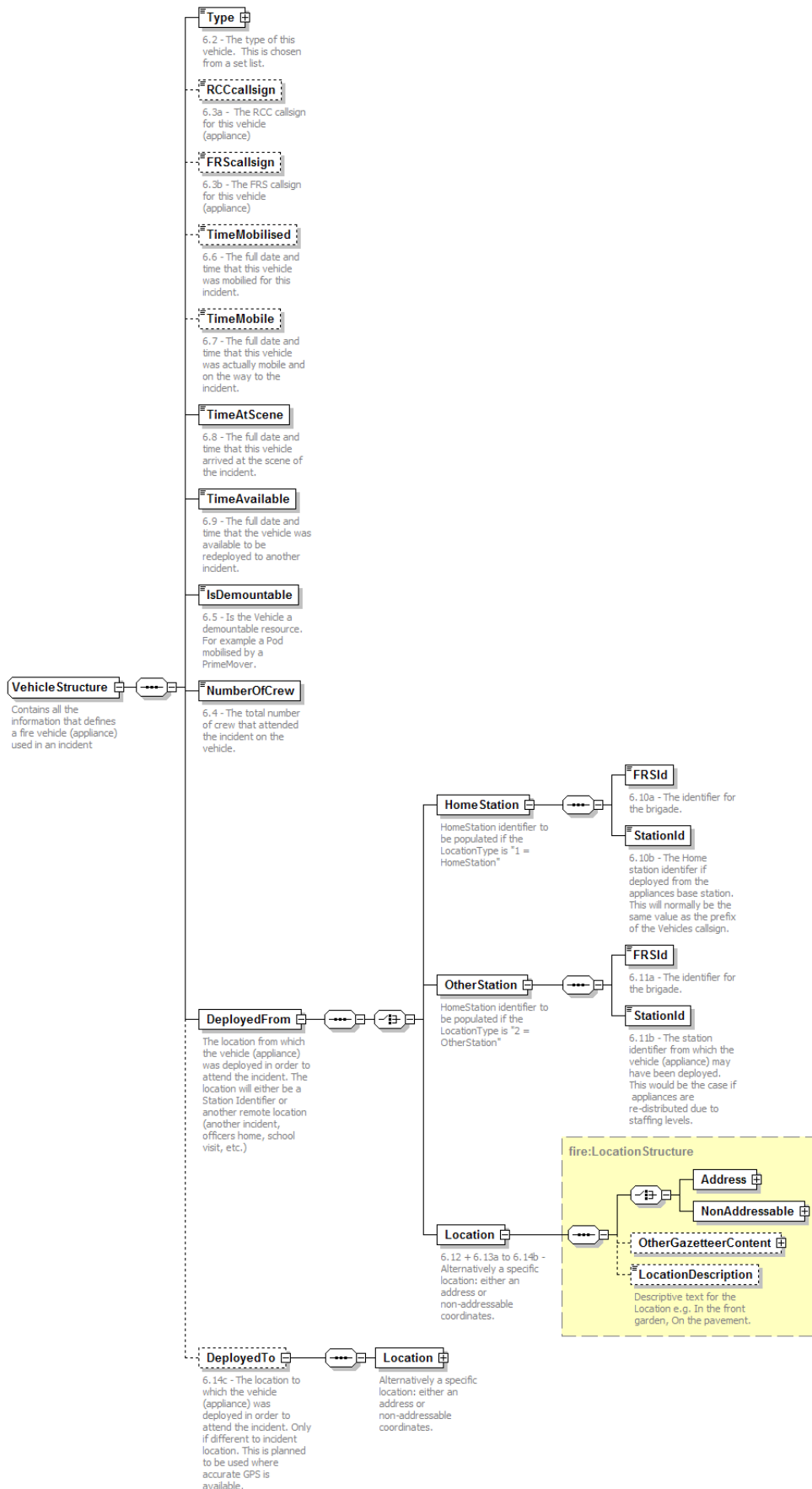
The 'DeploymentFrom' location is mandatory, but the 'DeploymentTo' location is optional.

For simplicity the 'DeployedFrom' Location contains a choice structure of one of three structures: "HomeStation", "OtherStation" or "Location" structure.

The "Location" is stored in the schemas as either an addressable location e.g. property, or, non-addressable location e.g. x,y coordinates (easting and northing) in the same manner as the other currently identified Incident Location.

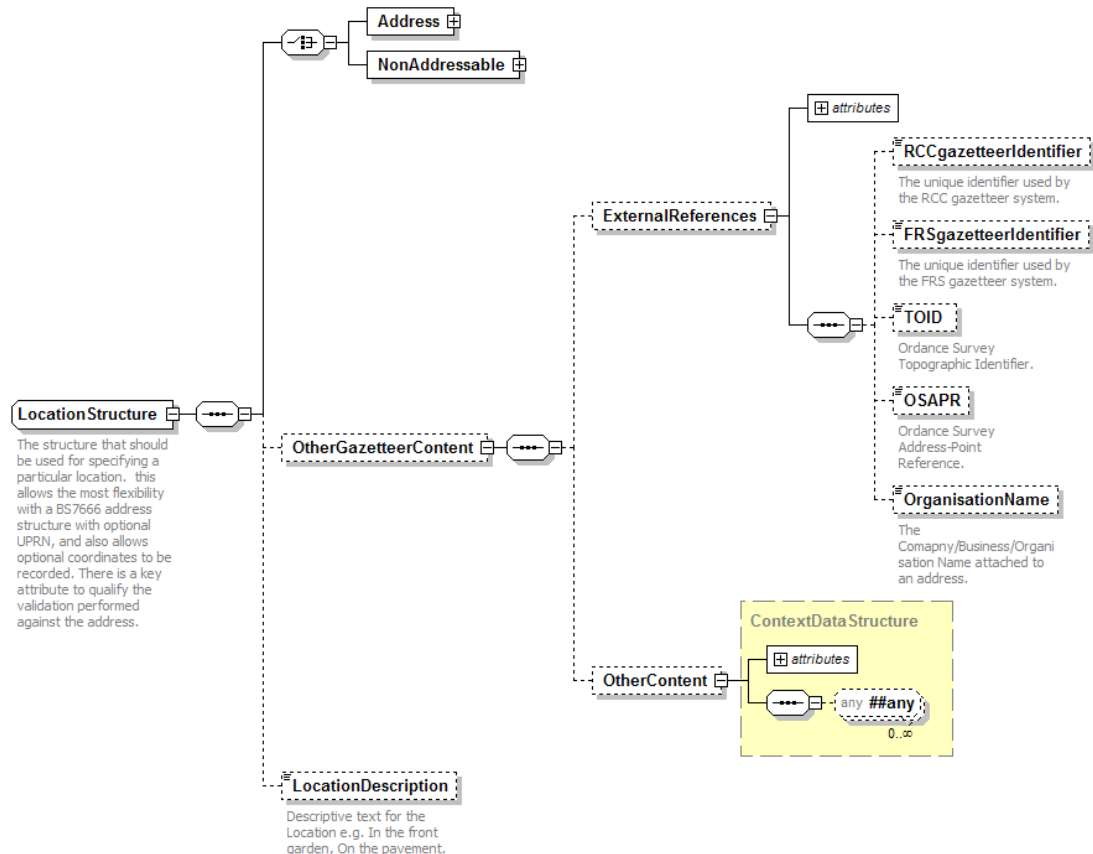
Note: It is strongly recommended that any FRS that already captures GPS coordinates for 'DeployedFrom' and 'DeploymentTo' locations should capture and pre-populate this information. Both 'DeployedFrom' and 'DeployedTo' location accuracy will greatly improve analysis.





Note: It is anticipated that the future Regional Command and Control based operation will enable Location GPS coordinates to be captured at the scene of any incident.

It is anticipated that there may be additional Gazetteer Unique Identifiers used by FRSs or the future RCC solution. This information can be recorded within the 'OtherGazetteerContent' structure. Specific fields have been defined for the most commonly anticipated requirements.



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The Regional Fire Control Convergence products have been adopted for identifying the 'StationId' code. The structure of the 'StationId' is as follows:

Full National call sign example: "FKG34"

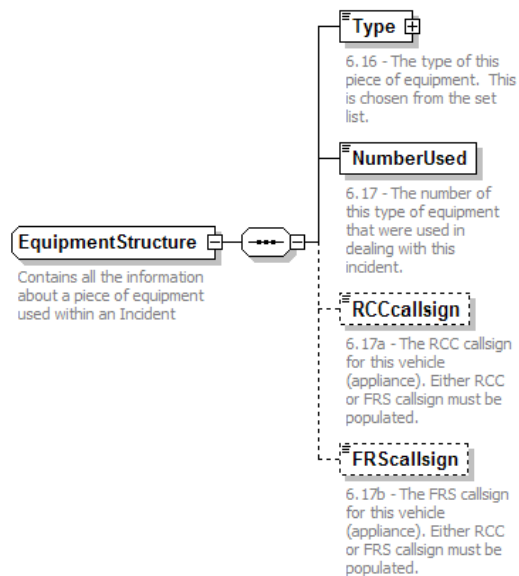
- Service F
- Region e.g. London K } Relates to the FRS Id.
- Sub Region/FRS i.d. G }
- Station 34

The code values that must be used by each FRS are defined within a reference spreadsheet. This can be found at:

document\source\FRSIncident\_Station\_Details\_v1-0i.xls

### 3.4.3.2 Equipment Resource

The Equipment structure captures various elements of information related to the equipment used at the scene of the incident. It is necessary to identify the type of equipment, the numbers used and the callsigns.

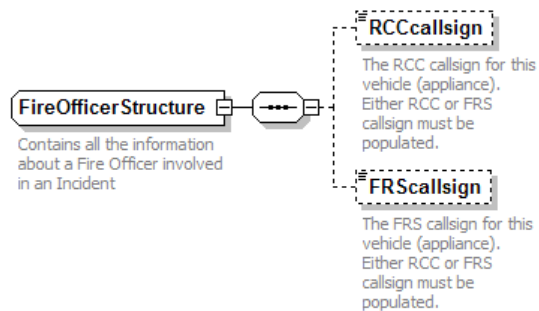


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### 3.4.3.3 FireOfficer Resource

The FireOfficer structure captures various elements of information related to the FireOfficers that attended the incident. It is only necessary to identify the callsigns.

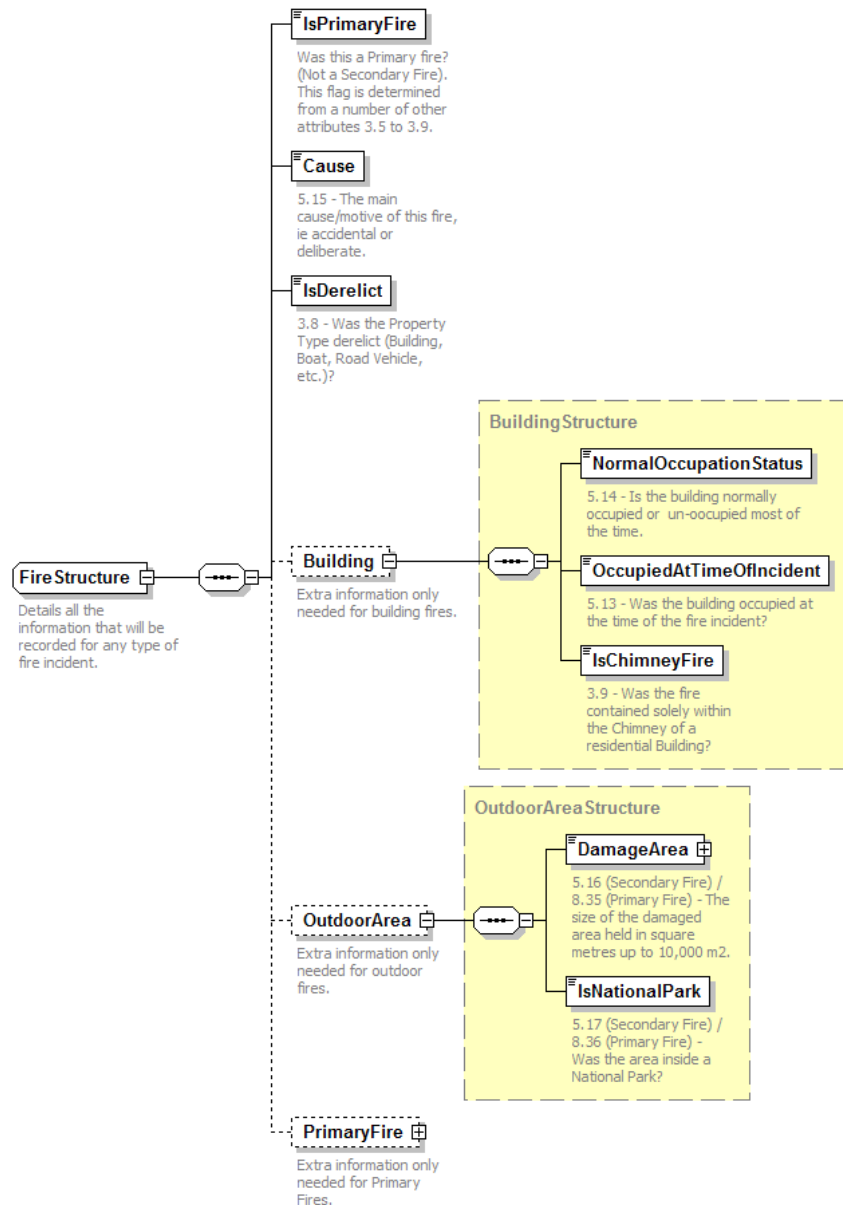


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### 3.4.4 Fire

Within the Fire structure there are a number of further optional sections ('Building', 'OutdoorArea') that are only required for certain 'PropertyType' Incidents. This is controlled by the 'PropertyCategory' attribute associated with the Property Type from the taxonomy file.



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Depending on the 'PropertyCategory' of the 'PropertyType' recorded one of the following two groups of data may be entered:

- 'Building' details for 'Dwelling', 'OtherResidential' and 'NonResidential' 'PropertyCategory' values
- 'OutdoorArea'. for 'Outdoor' & 'OutdoorStructure' 'PropertyCategory' values

If the 'MobiliseIncidentType' was 'CHIMNEY' (Id=39) or 'CHIMNEY THATCH' (Id=40) the 'IsChimneyFire' field value should be defaulted to 'yes'. Otherwise, the field will be defaulted to 'no'. The Fire Officer does have the ability to override the setting.

### 3.4.5 Primary Fire

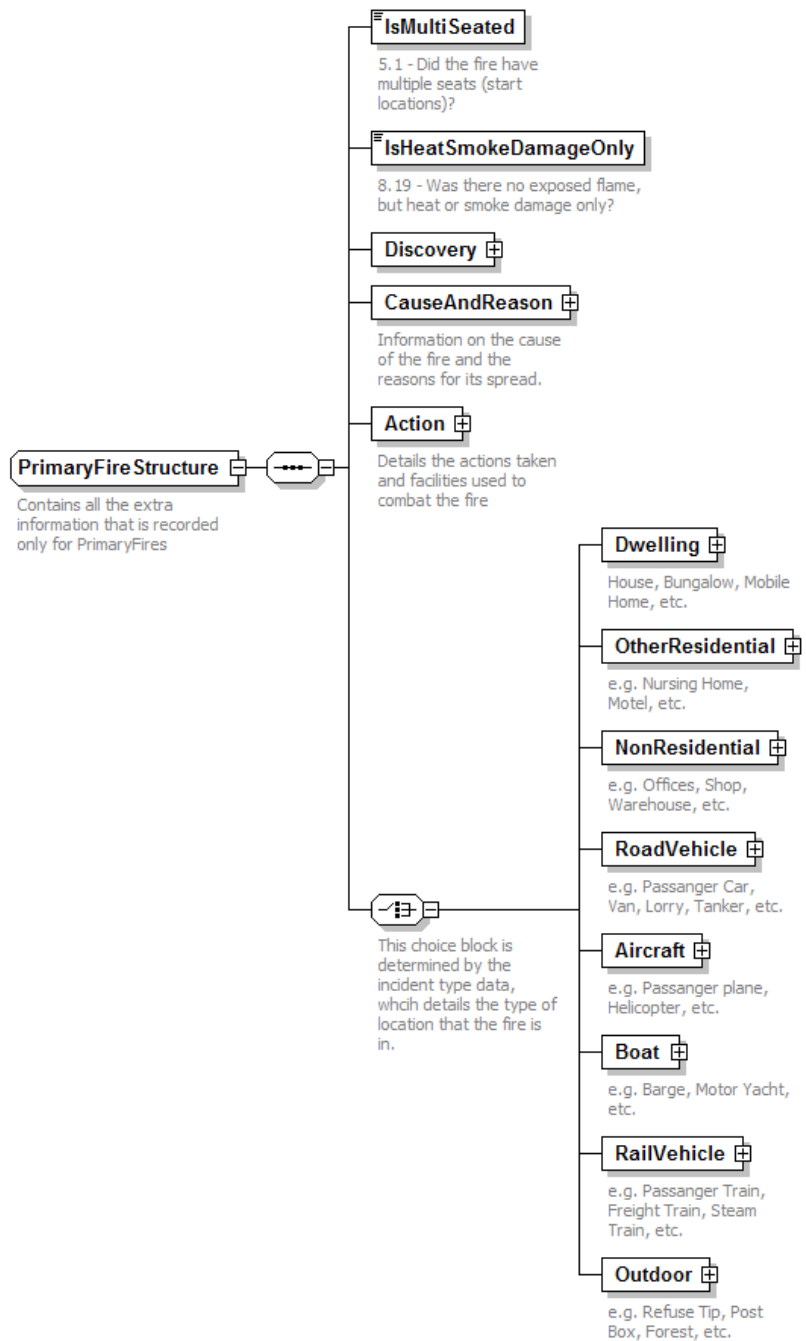
The majority of the detailed data collected within the IRS is only required for Primary Fires, and so this section contains a large amount of additional information.

The 'PrimaryFireStructure' is included within the 'Fire' structure shown above. It contains a number of questions regarding the discovery of the fire, its cause, and what action was taken to control it. This section should only be populated if the 'IsPrimaryFire' value is set to 'yes'.

There are a number of sections of data that are required by all Primary Fires such as: How the fire was discovered, what action took place and what was the cause and reason. Each of these data sections has its own data structure.

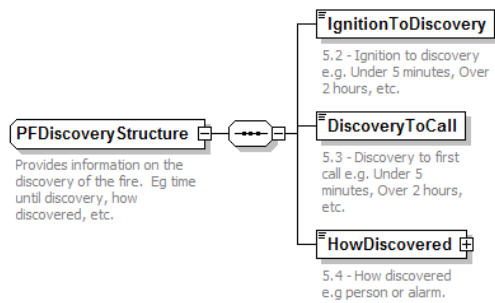
The 'PrimaryFireStructure' also contains a choice schema structure to allow for information specific to each 'PropertyCategory' that could have been involved in the Primary Fire. The category value defines the child structure to be populated: 'Dwelling', 'RoadVehicle', 'Outdoor', etc. The choice structure ensures that only one of these structures is ever present in the XML data. The value for the 'PropertyCategory' is derived from the 'PropertyType' selected from the Taxonomy File.

Note: Many of the repeating structures found below are controlled by a 'yes/no' indicator that defines whether the data should be populated. The structures should only be populated if the indicators are set to 'yes'.



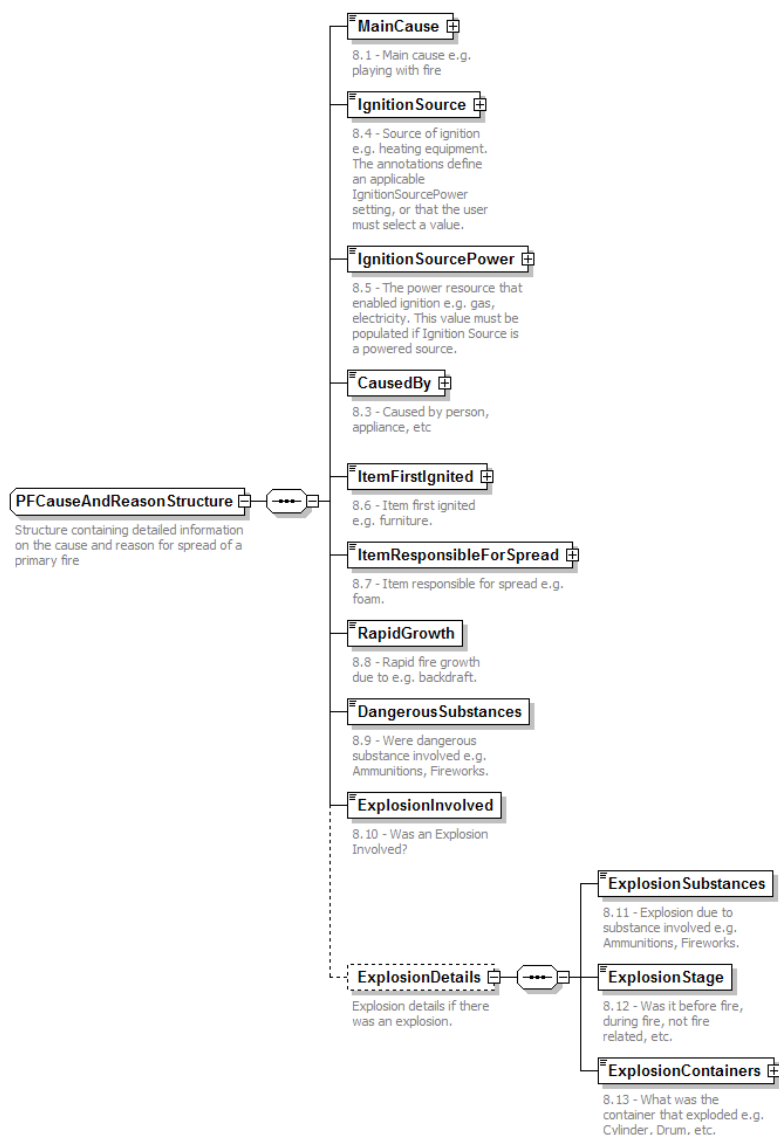
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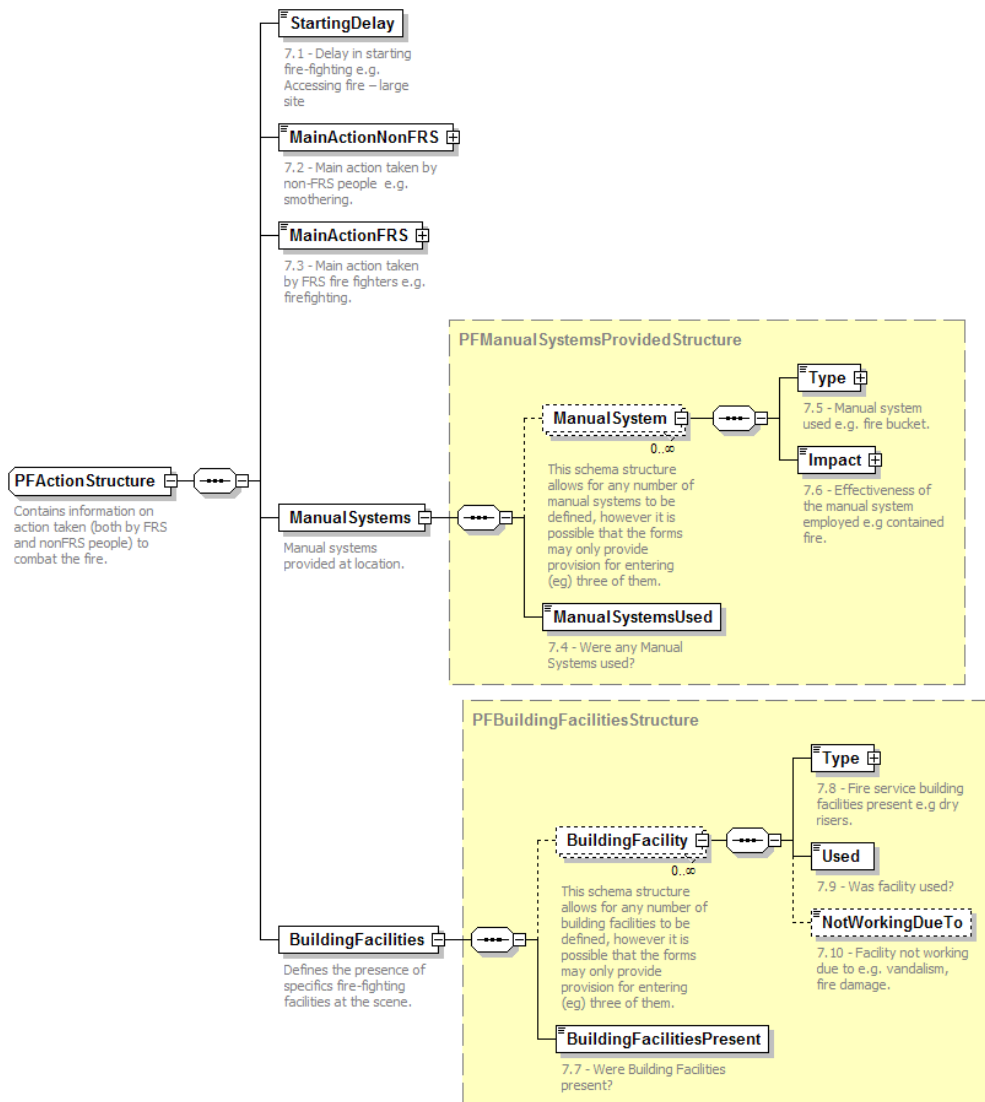
Generated by XmlSpy

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Generated by XmlSpy

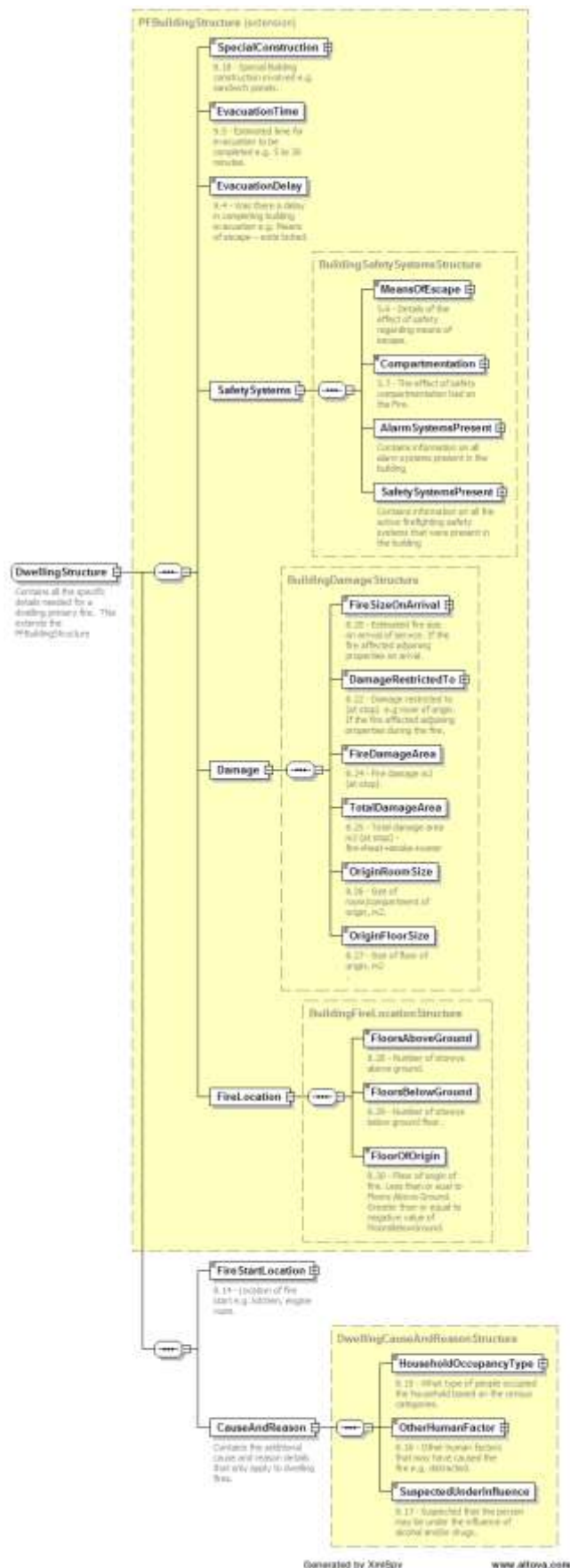
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#### 3.4.5.1 Dwelling

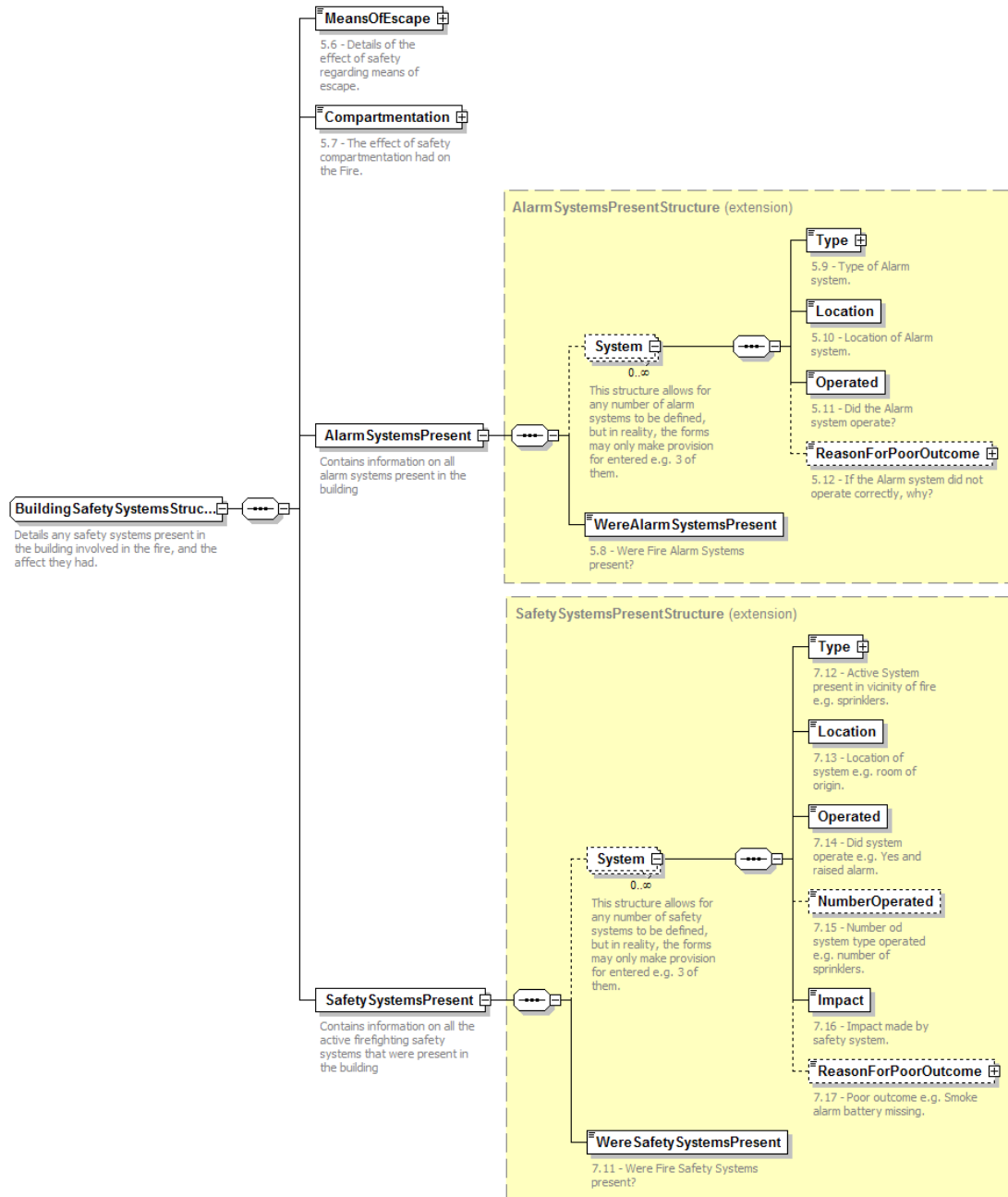
The 'DwellingStructure' details all the information required for primary fires that have occurred in dwellings. Most of the information recorded is the same for all three Building PropertyCategory types ('Dwelling', 'OtherResidential', 'NonResidential') and includes details of any safety systems present in the building, the total damage sustained, and the location of the fire within the building.

The 'Dwelling' structure adds to the common Building Details specific options for indicating where the fire started (Bedroom, Bathroom, Kitchen, etc.).



For all types of Buildings ('Dwelling', 'OtherResidential' and 'NonResidential') the following details need to be captured for the Safety Systems in place.

The 'WereAlarmSystemsPresent' and the 'WereSafetySystemsPresent' would be defaulted to 'yes' if the PropertyType selected had an attribute of 'IsPropertyRegulated = yes'. This attribute defines if the Building is covered by the Regulatory Reform Order (RRO).

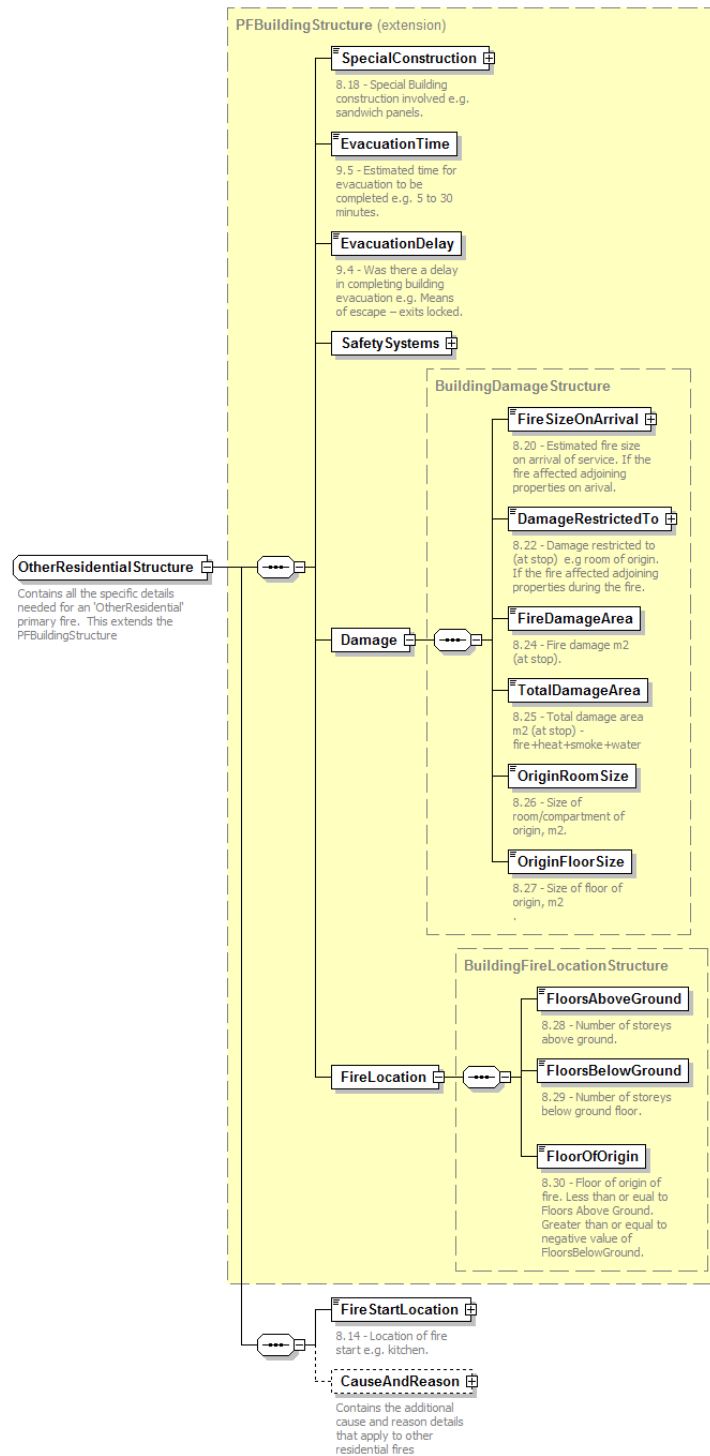


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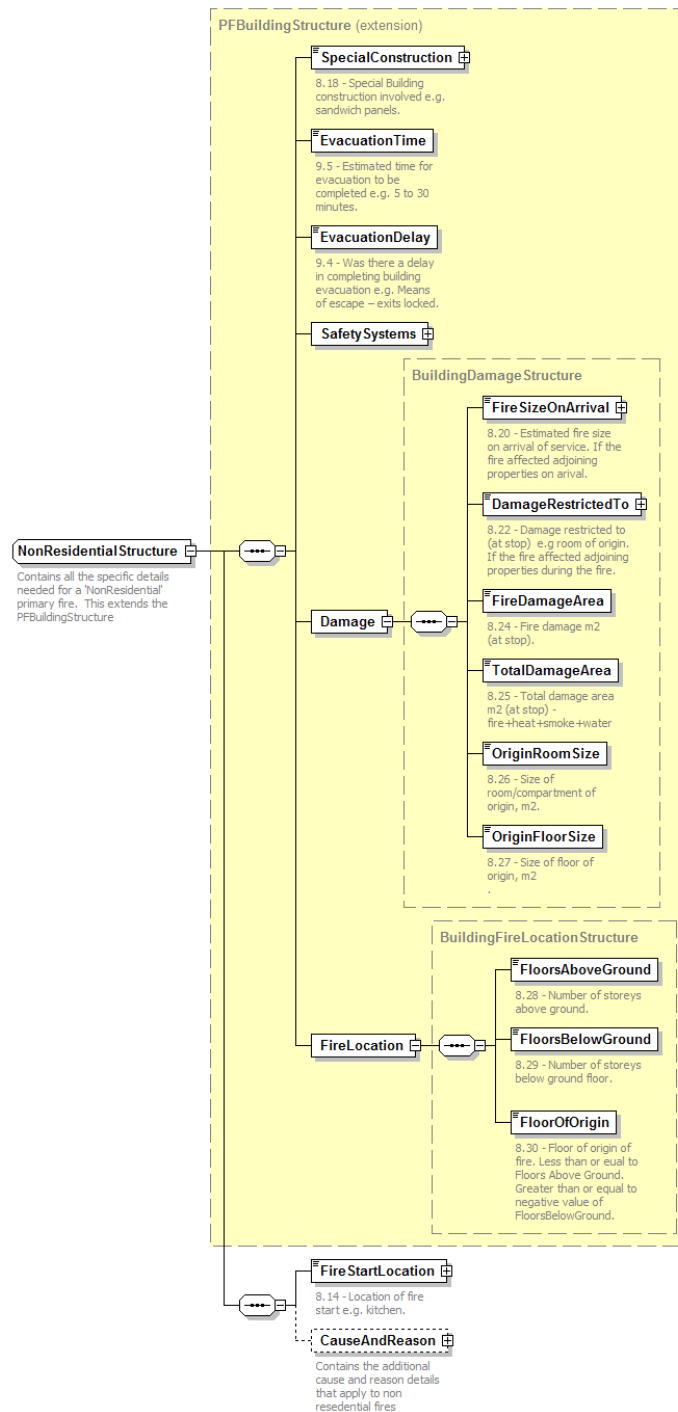
### 3.4.5.2 OtherResidential

This OtherResidentialStructure contains all the generic Building Fire details shown above for Dwelling Fires above, and adds specific options for indicating the start location of the fire that are relevant for OtherResidential Fires. This approach enables restrictions for the appropriate lists used for these elements, but the same element names are used.



### 3.4.5.3 NonResidential

This 'NonResidentialStructure' contains all the generic Building Fire details shown above for Dwelling Fires above, and adds specific options for indicating the start location of the fire that are relevant for 'NonResidential' Fires. This approach enables restrictions for the appropriate lists used for these elements, but the same element names are used.



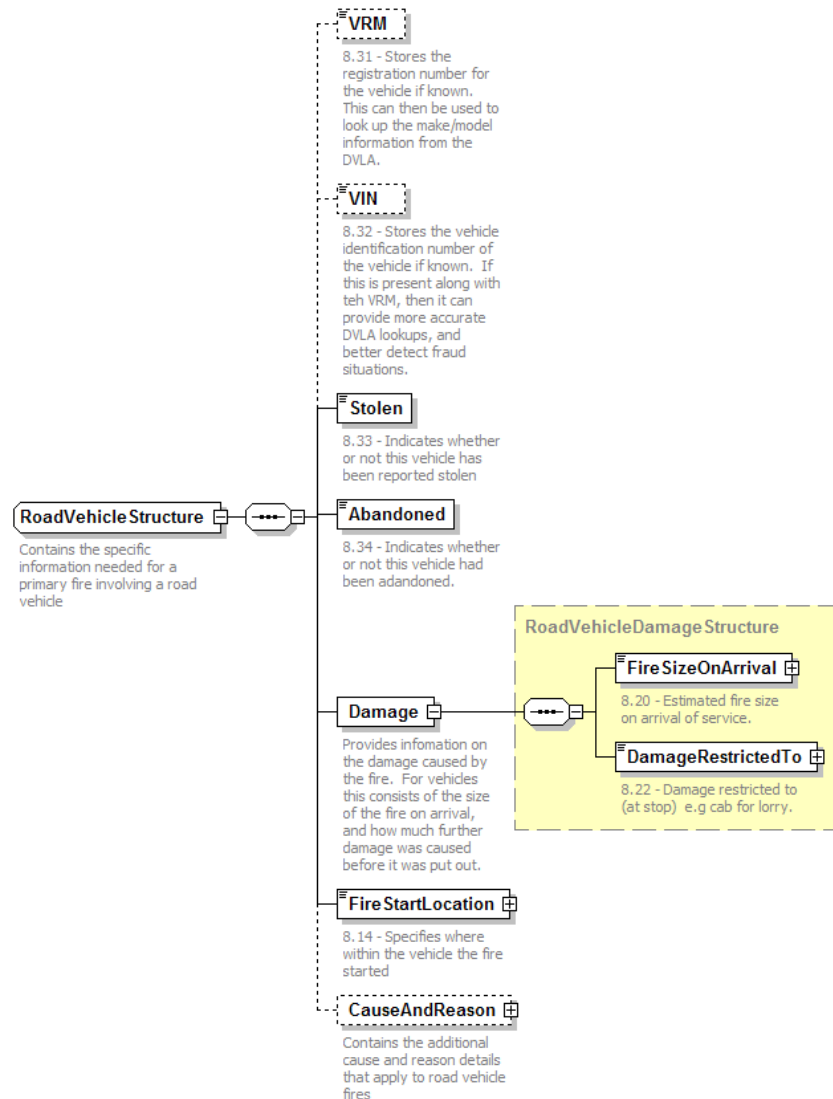
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### 3.4.5.4 RoadVehicle

The 'RoadVehicleStructure' contains details to identify the vehicle involved (VRM and VIN), along with information on whether the vehicle was stolen or abandoned, and the amount of damage sustained.

The 'RoadVehicle' section also provides specific options for specifying the start location of the fire (Engine, Fuel tank, Boot, etc.).

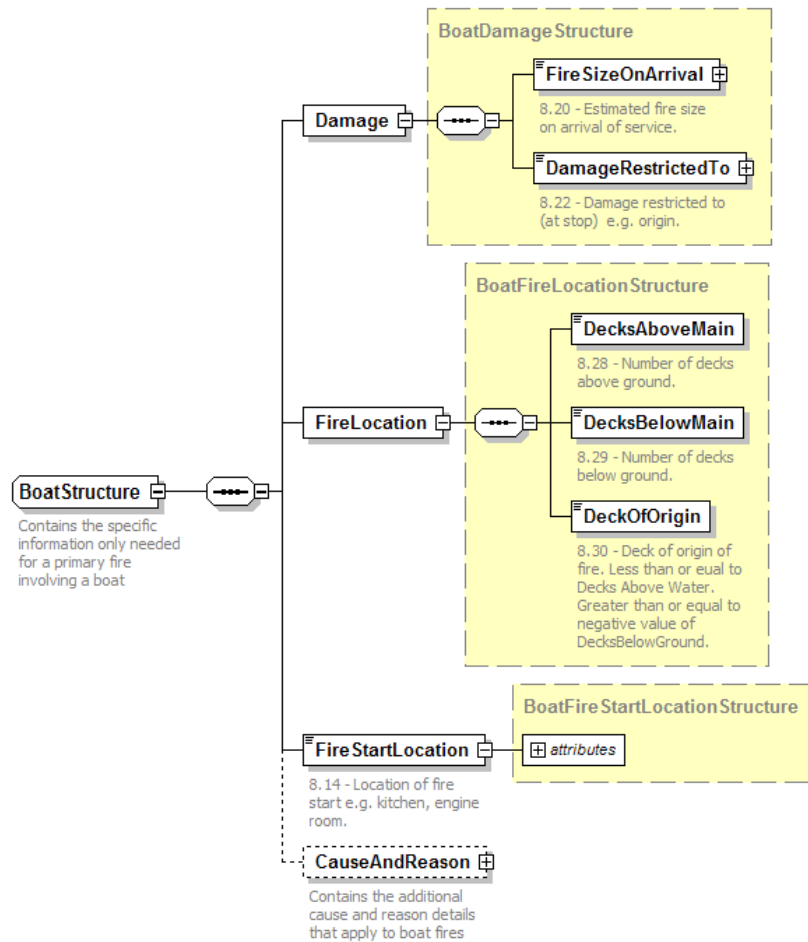


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### 3.4.5.5 Boat

This 'BoatStructure' contains information about the amount of damage the boat sustained, the number of decks it contained, and specific options for indicating the start location of the fire.

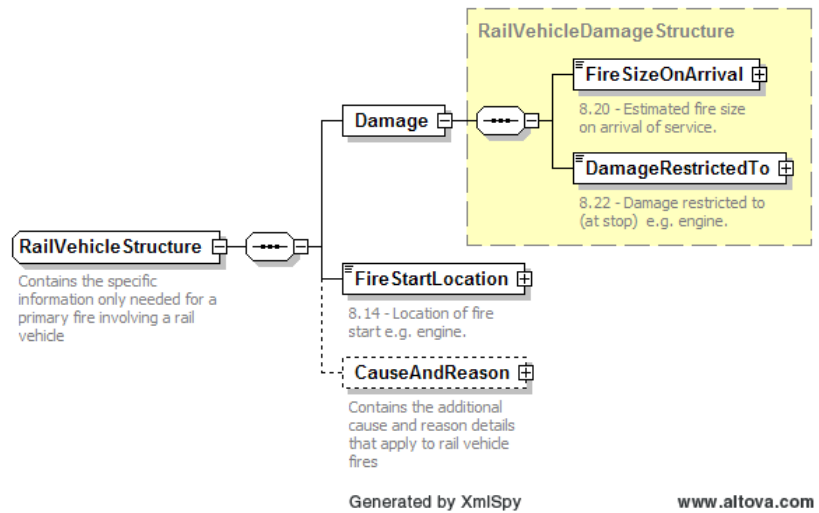


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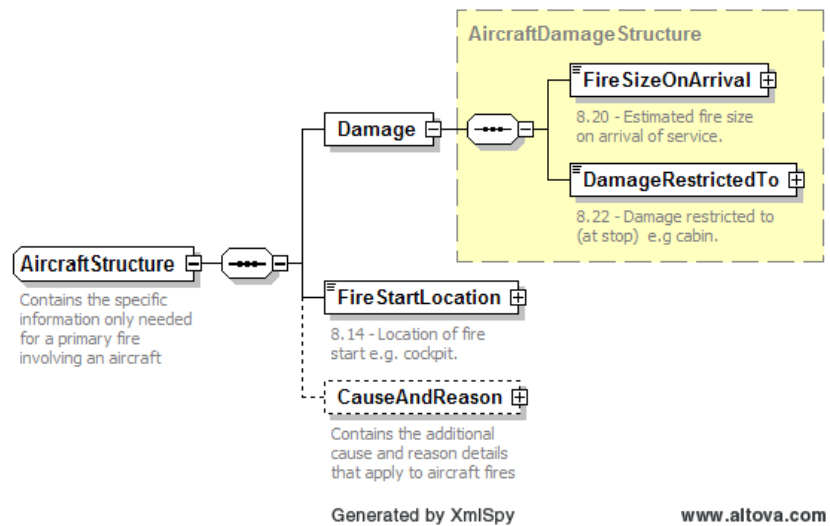
### 3.4.5.6 RailVehicle

This 'RailVehicleStructure' contains information about the amount of damage the rail vehicle sustained, and specific options for indicating the start location of the fire.



### 3.4.5.7 Aircraft

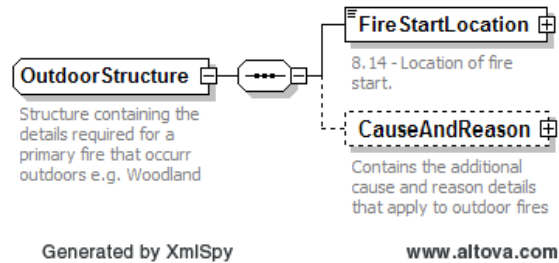
This 'AircraftStructure' contains information about the amount of damage the aircraft sustained, and specific options for indicating the start location of the fire.





#### 3.4.5.8 Outdoor

This 'OutdoorStructure' contains only information about outside areas e.g. Woodland.



#### 3.4.5.9 OutdoorStructure

This 'OutdoorStructureStructure' contains only information for outside structures e.g. PostBox.

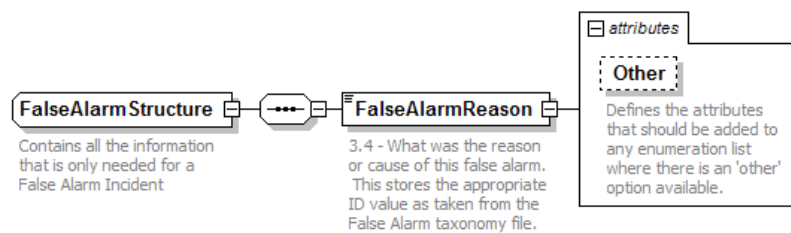
Note: Currently there are no mandatory fields required.

### 3.4.6 FalseAlarm

The 'FalseAlarmStructure' is required within the 'IncidentOnAttendance' section if it is determined that the incident was in fact a false alarm indicated by the 'IncidentCategory' is 'FalseAlarm'.

This section records the reason for the false alarm and whether the same location has been visited previously within the current year. The False alarm reason values are defined within the 'FalseAlarmReason' Taxonomy File.

No other specific details are required for false alarm incidents.



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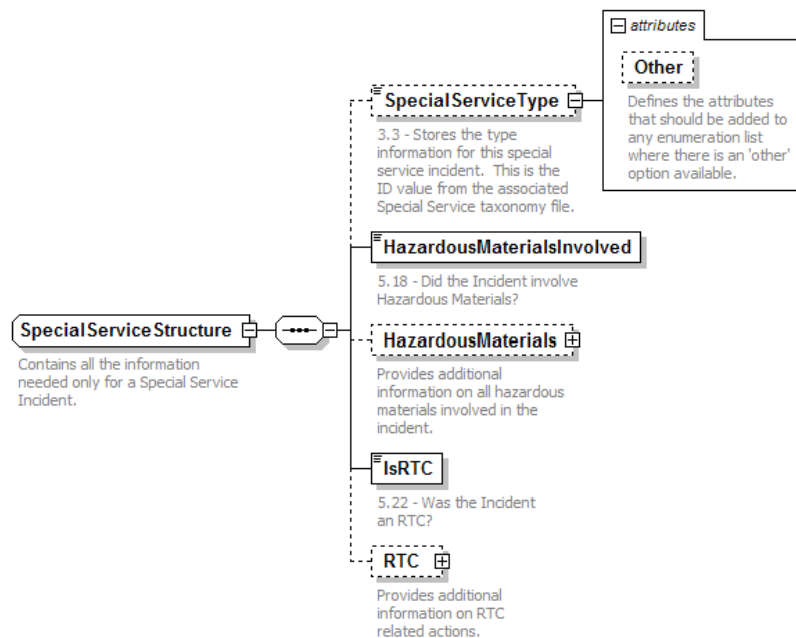
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### 3.4.7 SpecialService

The 'SpecialServiceStructure' is required within the 'IncidentOnAttendance' section if it is determined that the Incident was a special service indicated by the 'IncidentCategory' of 'SpecialService'.

Alternatively the 'SpecialServiceStructure' is also required if an Incident was a 'Fire' incident, but 'HazardousMaterialsInvolved' is set to 'yes' or was a Fire resulting from an RTC (IsRTC = 'yes'). In these cases the 'SpecialServiceType' is not defined, but the respective data structures are defined.

For Special Service Incidents the 'SpecialServiceType' values are defined within the 'SpecialServiceType' Taxonomy File. The 'SpecialServiceType' value has a number of associated attributes that are returned from the File:



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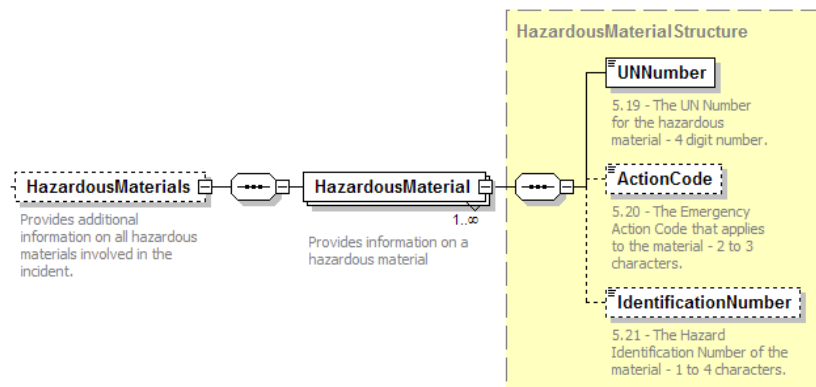
www.altova.com

Note: The 'HazardousMaterials' and 'RTC' structures within the 'SpecialService' structure are only required for some Incidents.

### 3.4.7.1 Hazardous Materials

The 'HazardousMaterialStructure' is part of the 'SpecialServiceStructure', but is currently only required for incident types that have a 'HazardousMaterialsInvolved' set to 'yes' (Should be set to 'yes' when the 'GenericType' of the MobiliseIncidentType is 'HM').

This structure allows for entry of any number of hazardous material details involved in the incident, and for each one its identification information is provided.



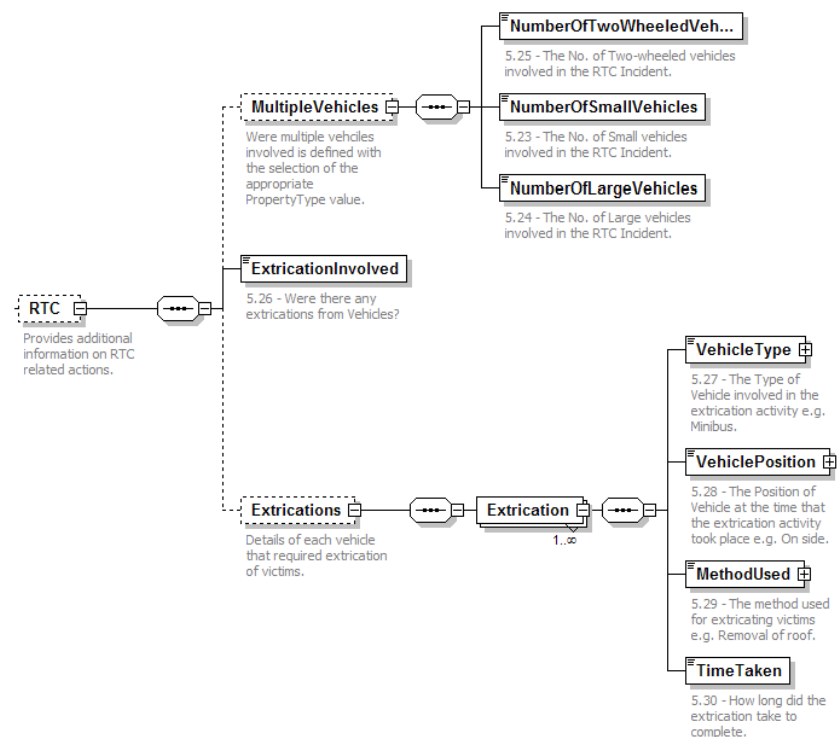
Note: The Hazardous Material details have very detailed validation constraints for each of the three elements of information. These constraints conform to the applicable industry standards. There is a schema type available which defines the 15 most common UNNumbers, but this is not attached directly to the UNNumber field within the schema.

### 3.4.7.2 RTC

The RTC structure allows the capture of specific information related to a Road Traffic Collision event.

If a Fire Incident selects a 'PropertyType' with a 'PropertyCategory' of 'RoadVehicle' then the user has the opportunity to record the 'IsRTC' field as 'yes'. In this case the user would then specify the 'RTC' specific data structure.

If a Fire Incident selects a PropertyType of '350 = MultipleVehicles' then the 'IsRTC' field should be set to 'yes'. In this case the user would specify the 'RTC' specific data section. The user would also have to enter the 'MultipleVehiclesStructure'.



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## 4 Appendix A – Taxonomy and Mappings

The taxonomy related files are supplied with the XML Information Model package. The file names are as follows:

### 4.1 Mobilisation Incident Type Taxonomy

The file reference is: FRSIncident\_MobilisationIncidentTypeTaxonomy-v1-0.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<ControlledList xmlns="http://www.esd.org.uk/standards" xmlns:fo="http://www.w3.org/1999/XSL/Format"
xmlns:fire="http://www.fire.gov.uk/schemas" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
ItemName="MobilisationIncidentType" ListName="Fire and Rescue Statistics - Incident Type List"
VersionDate="2007-03-16" HomeLocation="" LatestVersionLocation="" Version="1.0"
xsi:schemaLocation="http://www.esd.org.uk/standards http://www.esd.org.uk/standards/xmlschemas/taxonomy-
v3.0.xsd">
  <Item Preferred="true" LastUpdatedInVersion="1.0" AddedInVersion="1.0" Obsolete="false" ConceptId="0"
Id="0">
    <Name>Incident Type</Name>
    <ScopeNotes>Base item for all incident types</ScopeNotes>
  </Item>
  <Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="1000"
Id="1000">
    <Name>Alarms</Name>
    <ScopeNotes/>
    <BroaderItem Default="true" ConceptId="0" Id="0">Incident Type</BroaderItem>
  </Item>
  <Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="1"
Id="1">
    <Name>AFA</Name>
    <ScopeNotes>Incidents involving automatic fire detection systems</ScopeNotes>
    <Attributes>
      <fire:IncidentTypeDetails>
        <fire:GenericType>A</fire:GenericType>
        <fire:Category>P</fire:Category>
        <fire:Priority>3</fire:Priority>
        <fire:ForNationalStatisticsUse>yes</fire:ForNationalStatisticsUse>
      </fire:IncidentTypeDetails>
    </Attributes>
    <BroaderItem ConceptId="1000" Id="1000">Alarms</BroaderItem>
  </Item>
  <Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="2"
Id="2">
    <Name>GAS ALARMS</Name>
    <ScopeNotes>Any incident where the RCC is called to a fixed installation gas alarm. Domestic, commercial,
industrial</ScopeNotes>
    <Attributes>
      <fire:IncidentTypeDetails>
        <fire:GenericType>A</fire:GenericType>
        <fire:Category>P</fire:Category>
        <fire:Priority>3</fire:Priority>
        <fire:ForNationalStatisticsUse>yes</fire:ForNationalStatisticsUse>
      </fire:IncidentTypeDetails>
    </Attributes>
    <BroaderItem ConceptId="1000" Id="1000">Alarms</BroaderItem>
  </Item>
  <Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="3"
Id="3">
    <Name>SMOKE ALARM</Name>
    <ScopeNotes>Any report of a domestic smoke alarm operating. From a Member of the public or a monitoring
station</ScopeNotes>
    <Attributes>
      <fire:IncidentTypeDetails>
        <fire:GenericType>A</fire:GenericType>
        <fire:Category>P</fire:Category>
        <fire:Priority>3</fire:Priority>
        <fire:ForNationalStatisticsUse>yes</fire:ForNationalStatisticsUse>
      </fire:IncidentTypeDetails>
    </Attributes>
```

```

    </fire:IncidentTypeDetails>
  </Attributes>
  <BroaderItem ConceptId="1000" Id="1000">Alarms</BroaderItem>
</Item>
<Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="4"
Id="4">
  <Name>INTRUDER ALARM AT FRS PROPERTY</Name>
  <ScopeNotes>Activation of these alarms will be indicated through the RCC Systems. RCC will mobilise staff to
investigate.</ScopeNotes>
  <Attributes>
    <fire:IncidentTypeDetails>
      <fire:GenericType>A</fire:GenericType>
      <fire:Category>P</fire:Category>
      <fire:Priority>1</fire:Priority>
      <fire:ForNationalStatisticsUse>no</fire:ForNationalStatisticsUse>
    </fire:IncidentTypeDetails>
  </Attributes>
  <BroaderItem ConceptId="1000" Id="1000">Alarms</BroaderItem>
</Item>
<Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="5"
Id="5">
  <Name>FIRE ALARM AT FRS PROPERTY</Name>
  <ScopeNotes>Activation of these alarms will be indicated through the RCC Systems. RCC will mobilise staff to
investigate.</ScopeNotes>
  <Attributes>
    <fire:IncidentTypeDetails>
      <fire:GenericType>A</fire:GenericType>
      <fire:Category>P</fire:Category>
      <fire:Priority>1</fire:Priority>
      <fire:ForNationalStatisticsUse>yes</fire:ForNationalStatisticsUse>
    </fire:IncidentTypeDetails>
  </Attributes>
  <BroaderItem ConceptId="1000" Id="1000">Alarms</BroaderItem>
</Item>
<Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="1010"
Id="1010">
  <Name>Explosion</Name>
  <ScopeNotes/>
  <BroaderItem Default="true" ConceptId="0" Id="0">Incident Type</BroaderItem>
</Item>
<Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="20"
Id="20">
  <Name>EXPLOSION</Name>
  <ScopeNotes> Report of an explosion at a domestic or industrial premises. Not including deliberate bomb
attacks </ScopeNotes>
  <Attributes>
    <fire:IncidentTypeDetails>
      <fire:GenericType>E</fire:GenericType>
      <fire:Category>P</fire:Category>
      <fire:Priority>2</fire:Priority>
      <fire:ForNationalStatisticsUse>yes</fire:ForNationalStatisticsUse>
    </fire:IncidentTypeDetails>
  </Attributes>
  <BroaderItem ConceptId="1010" Id="1010">Explosion</BroaderItem>
</Item>
<Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="21"
Id="21">
  <Name>VEHICLE LPG FUELLED</Name>
  <ScopeNotes> Fires in vehicles fuelled by Liquid Petroleum Gas.</ScopeNotes>
  <Attributes>
    <fire:IncidentTypeDetails>
      <fire:GenericType>E</fire:GenericType>
      <fire:Category>P</fire:Category>
      <fire:Priority>2</fire:Priority>
      <fire:ForNationalStatisticsUse>yes</fire:ForNationalStatisticsUse>
    </fire:IncidentTypeDetails>
  </Attributes>
  <BroaderItem ConceptId="1010" Id="1010">Explosion</BroaderItem>
</Item>
<Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="1020"
Id="1020">

```

```

<Name>Fire</Name>
<ScopeNotes/>
<BroaderItem Default="true" ConceptId="0" Id="0">Incident Type</BroaderItem>
</Item>
<Item Preferred="true" Obsolete="false" LastUpdatedInVersion="1.0" AddedInVersion="1.0" ConceptId="30"
Id="30">
  <Name>ABANDONED CALL</Name>
  <ScopeNotes>Any occasion where a call is made to an RCC where the call terminates prematurely and the
information is incomplete</ScopeNotes>
  <Attributes>
    <fire:IncidentTypeDetails>
      <fire:GenericType>F</fire:GenericType>
      <fire:Category>M</fire:Category>
      <fire:Priority>5</fire:Priority>
      <fire:ForNationalStatisticsUse>no</fire:ForNationalStatisticsUse>
    </fire:IncidentTypeDetails>
  </Attributes>
  <BroaderItem ConceptId="1020" Id="1020">Fire</BroaderItem>
</Item>

```

## 4.2 Mobilisation Incident Type to Property Type Mapping

The file reference is: FRSIncident\_PropertyMapping-v1-0.xml

```

<ItemMappings xsi:schemaLocation="http://www.esd.org.uk/standards
http://www.esd.org.uk/standards/xmlschemas/mapping-v3.0.xsd" HomeLocation="" LatestVersionLocation=""
Version="1.0" FromResource="FRSIncident-MobilisationTypeTaxonomy-v1-0.xml" ToResource="FRSIncident-
PropertyTypeTaxonomy-v1-0.xml" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://www.esd.org.uk/standards">
  <ItemMapping AddedInVersion="1.0" LastUpdatedInVersion="1.0">
    <From>
      <Item Id="1" ConceptId="1">AFA</Item>
    </From>
    <To>
      <Item Id="1000" ConceptId="1000">Building</Item>
    </To>
  </ItemMapping>
  <ItemMapping AddedInVersion="1.0" LastUpdatedInVersion="1.0">
    <From>
      <Item Id="2" ConceptId="2">GAS ALARMS</Item>
    </From>
    <To>
      <Item Id="1000" ConceptId="1000">Building</Item>
    </To>
  </ItemMapping>
  <ItemMapping AddedInVersion="1.0" LastUpdatedInVersion="1.0">
    <From>
      <Item Id="3" ConceptId="3">SMOKE ALARM</Item>
    </From>
    <To>
      <Item Id="2000" ConceptId="2000">Dwelling</Item>
    </To>
  </ItemMapping>
  <ItemMapping AddedInVersion="1.0" LastUpdatedInVersion="1.0">
    <From>
      <Item Id="5" ConceptId="5">FIRE ALARM AT FRS PROPERTY</Item>
    </From>
    <To>
      <Item Id="285" ConceptId="285">Fire Station</Item>
    </To>
  </ItemMapping>
  <ItemMapping AddedInVersion="1.0" LastUpdatedInVersion="1.0">
    <From>
      <Item Id="20" ConceptId="20">EXPLOSION</Item>
    </From>
    <To>
      <Item Id="1000" ConceptId="1000">Building</Item>
    </To>
  </ItemMapping>

```



```
<ItemMapping AddedInVersion="1.0" LastUpdatedInVersion="1.0">
  <From>
    <Item Id="21" ConceptId="21">VEHICLE LPG FUELLED</Item>
  </From>
  <To>
    <Item Id="1010" ConceptId="1010">Road Vehicle</Item>
  </To>
</ItemMapping>
```

## 5 Appendix B – Online Form Questions – v1-0i

The referenced spreadsheet contains the 'questions' defined during the data consultation stage. The supporting document can be found within the Information Modelling pack at:

**document\source\Appendix B - Web Form Questions for incident types - v1-0i.xls**

## 6 Appendix C – FRS Incident Schema - Lists v1-0i

The referenced word document contains the 'drop-down lists' defined during the data consultation stage for some of the questions in Appendix B. The supporting document can be found within the Information Modelling pack at:

**document\source\Appendix C - FRS Incident Schema - Lists - v1-0i.doc**

## 7 Appendix D - Automated Schema Testing based on e-Government Schema Guidelines for XML v3

This stylesheet provides automated testing of schemas against some aspects of version 3 of the UK GovTalk XML Schema Guidelines. The result can be pasted from a browser into a word processor for completion of testing manually. When it is updated to version 4 of the guidelines, those guidelines that can only be tested manually will be added to make a complete template.

### 7.1 XML Schema Guidelines

Guideline	<u>Mand</u> <u>Rec</u>	<u>Auto</u> <u>Manual</u> <u>Part</u> <u>Auto</u>	Result	Comment
If your schema document has a target namespace, any default namespace for the document MUST be the same as the target namespace.	M	A	pass	
The W3C XML Schema namespace MUST be qualified with a prefix of either xsd or xs.	M	A	pass	
elementFormDefault MUST be set to qualified.	M	A	pass	
attributeFormDefault SHOULD be set to unqualified.	R	A	pass	
Schemas MUST be designed so that elements are the main holders of information content in the XML instances.	M	P	The schema contains 21 element declarations and 8 attribute declarations.	
In documenting a W3C XML schema, the documentation element MUST be used rather than XML comments.	M	P	pass	
Use of xsd:redefine SHOULD be avoided.	R	A	pass	
xs:import MUST NOT be used without a namespace attribute.	M	A	pass	

### 7.2 XML Schema Component Guidelines

Guideline	<u>Mand</u> <u>Rec</u>	<u>Auto</u> <u>Manual</u> <u>Part</u> <u>Auto</u>	Result	Comment
The names of complex data types SHOULD end with the text string Structure.	R	A	pass	
The name of simple data types SHOULD end with the text string Type.	R	A	pass	
Extremely long names SHOULD be avoided by designing concise and informative names. (This tests for names greater than 35 characters.)	R	P	pass	
All names SHOULD use upper camel case. (This	R	P	pass	

just tests that the first character is upper case.)				
The Government Data Standards Catalogue (GDSC) MUST be used as a reference document for data type and element definitions unless a domain-specific schema has been agreed for a specific use. (This test looks for likely names that can be compared manually.)	M	P	The following names are similar to those in the GDSC:	
In general, attributes SHOULD be given a local scope by defining them within the context of their owning element.	R	A	pass	
In a data-centric document, the mixed content model (where an element contains both other elements and character data, SHOULD be avoided.	R	P	pass	

### 7.3 Metadata and Schemas

Guideline	<u>Mand</u> <u>Rec</u>	<u>Auto</u> <u>Manual</u> <u>Part</u> <u>Auto</u>	Result	Comment
Schema documents MUST have e-GMS metadata.	M	P	pass	
In accordance with current W3C practice, schemas MUST indicate a schema version number using the version attribute of the schema element.	M	A	pass	
The id attribute of the schema element SHOULD be used to indicate the identity of the schema.	R	A	pass	
The id attribute of the schema element MUST be the same as that indicated in the e-GMS Identifier element (either entirely or the part within curly braces).	M	A	pass	
chemas MUST require the inclusion of a version number in those instance document elements where it is appropriate. This MUST include the intended document element of instance documents and MAY include other elements. This version number MUST use the attribute name SchemaVersion OR The target namespace MUST contain version information after the naming part (e.g. <a href="http://www.govtalk.gov.uk/Name-200409">http://www.govtalk.gov.uk/Name-200409</a> )	M	P	pass	

## 8 Appendix E – Complex Business Logic Rules

The Error categorisation details are detailed below along with a table containing a summary of the complex validation rules found in this document.

### 8.1.1.1 Fatal Errors

**Description:** These errors identify that it has not been possible to access or process the service, either because the request structure was invalid or the service is temporarily unavailable.

**IRS Action:** None.

**Error Return Method:** SOAP Fault response.

**Examples:** Authentication errors, Database connectivity errors.

### 8.1.1.2 Errors

**Description:** This category defines errors that prevent the request being completed due to basic error details related to the quality of the request information.

**IRS Action:** Generate the Validation Errors for Response. For a GET or SEARCH Incident requests no Incident results would be returned. For INSERT or AMEND Incident requests then the action would not have been successful and the request would not be inserted/amended to the IRS database.

**Error Return Method:** ValidationStructure of the SOAP Body response.

**Examples:** Schema validation errors, major data integrity or structure problems.

### 8.1.1.3 Warnings

**Description:** These errors prevent an incident from reaching the status of '60 = Recorded' (i.e. The FireOfficer cannot successfully complete and then publish an incident until all Warnings are addressed).

**IRS Action:** Generate the Validation Errors and complete the request (i.e. store/update incident in the database). However, the record can not be successfully '70 = Published' as the Warnings must be addressed.

**Error Return Method:** ValidationStructure of the SOAP Body response.

**Examples:** Population of Evacuation Assistance, Hazardous Materials, FOSI related information under specific conditions.

#### 8.1.1.4 Information details

**Description:** These errors are for information only and do not impact the processing at any stage in the lifecycle of the Incident. Sometimes these details are suggestions that the data seems to be uncommon, but could be valid. These details should be checked, but the record is valid to be '70 = Published'. There may be other Information details provided in some situations (yet to be defined). It is advisable that these errors are checked as the data may have been entered incorrectly.

**IRS Action:** Generate the Validation Errors structure and complete the request (i.e. store/update/publish incident in the database).

**Error Return Method:** ValidationStructure of the SOAP Body response

**Examples:** The difference between TimeOfCall and TimeIncidentClosed is greater than three days. FOSI details have not been completed, but there is a injured firefighter involved.

#### 8.1.1.5 Validation Status (Auto-Save, Basic, Full)

The INSERT and AMEND Incident Request structures include a ValidationStatus attribute, which is used to control the level of validation performed by a request.

The IRS Online Web Forms will permit 'AutoSave', 'Basic' and 'Full' validation. The IRS Incident Web Service will support 'Full' validation for the XML data access channel.

**'Auto-Save'** validation requests are not subject to either schema validation or the complex business rule validation. The requests must be well-formed XML and have no fatal errors. This will not produce 'Error', 'Warning' and 'Information' details in the Validation Structure as the validation has not been performed.

**'Basic'** validation requests are subject to 'Auto-Save' validation, schema validation and key data integrity checks, but not the full complex business rule validation. This will produce 'Error' details in the Validation Structure as the 'Basic' validation has been performed.

'Full' validation requests subject to the 'Basic' validation and the full complex business rule validation. This will produce 'Error', 'Warning' and 'Information' details in the Validation Structure as the 'Full' validation has been performed. The 'Full' validation will only pass successfully if there are no 'Fatal', 'Error' or 'Warning' error details returned.

Note: The 'Full' validation will perform a 'Basic' validation, which checks the XML Schemas. If the 'Basic' checks pass with no Errors (XML is well-formed and valid), then the Business Rules will be applied. This can cause validation to return a single error on the first pass, and then once the first error is resolved a number of further Errors or Warnings may appear.

Note: The Rules are structured into Rule Groups. This allows the rules to be processed based on whether data structures are present in the Incident structure or just for some Service Operations.

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Invalid XML	The web service request is not well formed XML	ALL	Fatal	0001	SOAP Fault
		The web service is unavailable	ALL	Fatal	9999	SOAP Fault
<b>Schema Validation</b>						
	Schema	The following Error Number is reserved for Schema validation errors. For example: Mandatory, Out of Range, Not a valid value, etc.	ALL	Error	0005	
	Schema Version Check	The Schema Version must be a valid implemented value – currently 'v1-0' only.	ALL	Fatal	0998	SOAP Fault
<b>LOGON</b>	<b>(Issue SecurityToken)</b>					
	Authentication – Issue Token	User must have a valid Logon User and Password Combination	LOGON	Fatal	1001	SOAP Fault
	<b>(Cancel SecurityToken)</b>					
	Authentication – Cancel User invalid	The Requested Session token does not exist	LOGON	Fatal	1002	SOAP Fault



Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Invalid Security	An error was discovered processing the Security Header.	LOGON	Fatal	1003	SOAP Fault
<b><u>All Operations - Access Control</u></b>						
	Authenticated Session	The Session Token must be valid and active (possible time-out)	INSERT, AMEND, GET, SEARCH	Fatal	1101	SOAP Fault
	FRS Incident Access	FRS Users are only permitted to retrieve data for their own FRS territory (based on FRSId within NationalStatisticsNumber), and the FRSId of the ResponsibleParty for recording the Incident. The user profile determined through login will be verified against the request to provide authorisation based on the Session Token.	GET, SEARCH	Error	1102	
	FRS Incident Registration Insert	FRS Users are only permitted to Insert data with the FRSId of the ResponsibleParty matching their user account. The user profile determined through login will be verified against the request to provide authorisation based on the Session Token.	INSERT	Error	1103	
	FRS Incident Registration Amend	FRS Users are only permitted to Amend data with the FRSId of the ResponsibleParty or the FRSId of the NationalStatisticsNumber (Territory) matching their user account. The user profile determined through login will be verified against the request to provide authorisation based on the Session Token.	AMEND	Error	1104	
<b><u>INSERT and AMEND Incident</u></b>						
	FRS Incident Insert	FRS Users are permitted to insert data from their own FRS, but cannot set the IncidentStatus greater than '75=Published With Queries' (Not 80,90)	INSERT, AMEND	Error	2001	
	Inclusion of IncidentId for Insert	To ensure the correct use of the Insert and Amend operations, the InsertIncidentDetails supplied to the InsertIncident operation contains an IncidentId attribute the request will be rejected. Note: the field is allocated by the IRS System.	INSERT	Error	2003	
	Incident Exists	The user cannot use an FRSIncidentNumber that is not unique across the recording FRS's incident data.  Note: This includes both FRSIncidentNumber and OverTheBorderFRSIncidentIdentifier fields.	INSERT, AMEND	Error	2004	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	OverTheBorder other Territory	<p>If the OverTheBorder indicator is set to 'yes' then the FRS Territory (NationalStatisticsNumber / FRSId) and the Recording FRS (ResponsiblePartyStructure / FRSId) cannot be the same value if populated.</p> <p>Note: The user must populate the FRS Territory if the OverTheBorder indicator is set to 'yes'. However, the Responsible Party can be left un-populated to allow the Web Service to provide the default value.</p>	INSERT, AMEND	Error	2010	
	OverTheBorder own Territory	<p>If the OverTheBorder indicator is set to 'no' then the FRS Territory (NationalStatisticsNumber / FRSId) and the Recording FRS (ResponsiblePartyStructure / FRSId) must be the same value if populated.</p> <p>Note: Both fields are defaulted by the IRS system if the fields are not populated in the request. The default is based on the Logon Username and the associated FRSId.</p>	INSERT, AMEND	Error	2011	
	OverTheBorder Incident Exists as Incident	<p>The user cannot use an OverTheBorderFRSIncidentIdentifier that is not unique across the territorial FRS's incident data (National StatisticsNumber / FRSId).</p> <p>Note: This includes both FRSIncidentNumber and OverTheBorderFRSIncidentIdentifier fields.</p>	INSERT, AMEND	Error	2005	
	Validation Status Incorrect	The ValidationStatus must be 'Full' for XML Data Access Channel or 'Auto-Save', 'Basic' or 'Full' for the online forms.	INSERT, AMEND	Fatal	2007	
	Validation Status vs Incident Status	<p>If the IncidentStatus is greater than or equal to "70=Published" (i.e. 70=Published, 75=Published With Queries, 80=Statistics Team Queried, 90=Statistics Team Closed) then ValidationStatus must be 'Full'. Note: The Online Forms 'Auto-Save' functionality will be exempt from this rule (controlled by Authorisation)</p>	INSERT, AMEND	Error	2008	
	Incident Locking	<p>To prevent multiple users editing the same Incident simultaneously a locking mechanism will be enforced.</p> <p>When an amendment is sent by the user the 'DateUpdated' (a timestamp) in the Audit details is checked to see if it hasn't changed from the details passed in by the User from when they previously called the GetIncident. If they are different an Error is generated as another user has updated the incident record since it was obtained.</p>	AMEND	Error	2009	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	IRS Populated values cannot be changed	The NationalStatisticsNumber elements (Nominal Year and Sequence Number) cannot be changed on an Amend Incident request if they have been populated.  These fields are populated by the IRS System. The fields will be ignored for any amendment. IRS will always return the correct values.	AMEND	Error	2012	
<b>Incident Validation</b>						
	<b>IncidentAtCall</b>					
	Value range for MobiliseIncidentType	The permitted values for the MobiliseIncidentType element are governed by the FRSIncidentTypeTaxonomy-v1-0.xml	INSERT, AMEND	Error	3001	
	MobiliseIncidentType Description	If the MobiliseIncidentType element is set to '0 = Not known' then the Description attribute must have a value.	INSERT, AMEND	Error	3012	
	MobiliseIncidentType valid for Publication	The MobiliseIncidentType can not be set to '0 = Not known' if the IncidentStatus >= '60=Recorded'.	INSERT, AMEND	Warning	3013	
	Value range for the GenericType attribute of MobiliseIncidentType	The permitted values for the GenericType are governed by the attributes for the corresponding MobiliseIncidentType item in the FRSIncidentTypeTaxonomy-v1-0.xml. The value should be defaulted from the Taxonomy entry.	INSERT, AMEND	Information	3002	
	Value range for PriorityAtCall	The permitted values for the PriorityAtCall element are governed by the attributes for the corresponding MobiliseIncidentType item in the FRSIncidentTypeTaxonomy-v1-0.xml. The value should be defaulted from the Taxonomy entry.	INSERT, AMEND	Information	3003	
	Value of LateCall flag	If the MobiliseIncidentType = 'LATE CALL' (Id=49) then LateCall='yes'. The value should be defaulted for the Taxonomy entry.	INSERT, AMEND	Information	3004	
	Incident Times in the Past	The TimeOfCall and TimeIncidentClosed must be <= Today.	INSERT, AMEND	Error	3014	
	Chronological ordering of Incident timings	If (LateCall = 'no') then the TimeOfCall, TimeStoppedMobilising, TimeIncidentClosed should be chronological.	INSERT, AMEND	Warning	3005	
	Chronological ordering of Incident timings	The TimeOfCall must be less than the TimeIncidentClosed	INSERT, AMEND	Warning	3011	
	Incident Timing Range Exceeded	If the TimeOfCall and TimeIncidentClosed is greater than 30 days apart then it's a Warning.	INSERT, AMEND	Warning	3006	
	Incident Timing Range Warning	If the TimeOfCall and TimeIncidentClosed is greater than 3 days apart then producing an Information Warning.	INSERT, AMEND	Information	3007	
	Incident Location Geo-Coordinates	The 'IncidentLocation / Address / Coordinates / X & Y' or the 'IncidentLocation / NonAddressable / Coordinates / X & Y' must be entered if the IncidentStatus >= '60=Recorded'	INSERT, AMEND	Warning	3008	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	OriginOfCall Description	If the OriginOfCall is set to '0 = Not known' then the Description attribute must be populated	INSERT, AMEND	Error	3009	
	OriginOfCall Valid for Publication	The OriginOfCall can not be set to '0 = Not known' if the IncidentStatus >= '60=Recorded'. A valid value must be selected.	INSERT, AMEND	Warning	3010	
	ResponsiblePartyFireOffice rld	If the ResponsibleParty FireOfficerId is populated then the StationId must also be populated.	INSERT, AMEND	Error	3016	
	IncidentOnAttendance Details	The 'IncidentOnAttendance' element must be present if the IncidentStatus >= '60=Recorded'	INSERT, AMEND	Error	3101	
	<b>IncidentOnAttendance</b>					
	Value range for IncidentCategory	The IncidentCategory and GenericType values should be compatible.  The value for the IncidentCategory is defaulted based on the IncidentAtCall GenericType values. The IncidentCategory value can only be: 'Fire', 'FalseAlarm', 'SpecialService' as follows:  A, E or F = Fire HM, R, CD or HA = SpecialService	INSERT, AMEND	Information	3102	
	Incident Category Details	If the IncidentStatus >= '60=Recorded'. Then at least one of the three elements 'Fire', 'SpecialService', or 'FalseAlarm' must be entered	INSERT, AMEND	Error	3103	
	Other option for PropertyType	"OtherAttributeRule" - IncidentOnAttendance / PropertyType - If the field value 'Other=yes' from the Taxonomy file is selected then a text description is required in the 'Other' attribute. The 'Other' attribute must not be populated unless the field value is 'Other=yes'.	INSERT, AMEND	Error	3105	
	Inclusion of Fire structure	If the IncidentCategory = 'Fire' then the 'Fire' element must be entered and the 'FalseAlarm' element can not be present.	INSERT, AMEND	Error	3201	
	Inclusion of SpecialService structure	If the IncidentCategory = 'SpecialService' then the 'SpecialService' element must be captured and the 'Fire' element can not be present.	INSERT, AMEND	Error	3121	
	Inclusion of FalseAlarm structure	If the IncidentCategory = 'FalseAlarm' then the 'FalseAlarm' element must be entered and the 'Fire' and 'SpecialService' elements can not be present.	INSERT, AMEND	Error	3110	
	Inclusion of Fire or FalseAlarm structure	If the IncidentCategory = 'SpecialService' then the 'Fire' or 'FalseAlarm' elements cannot be populated.	INSERT, AMEND	Error	3126	
	Value range for PropertyType	The permitted values for the PropertyType element are dependent upon FRSPROPERTYTYPETaxonomy-v1-0.xml	INSERT, AMEND	Error	3236	
	Mapping for PropertyType	The permitted values for the PropertyType element should be dependent upon the MobiliseIncidentType value and governed by the following taxonomy mapping file: FRSPROPERTYTYPEMapping-v1-0.xml	INSERT, AMEND	Information	3237	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	PropertyType and Property Category Compatibility	The PropertyCategory attribute for the designated PropertyType (defined in the FRSPROPERTYTypeTaxonomy-v1-0.xml) must match the PropertyCategory.	INSERT, AMEND	Error	3238	
	False Alarm PropertyType	The PropertyType can only be set to '9999 = Not known' if the IncidentCategory is 'FalseAlarm'.	INSERT, AMEND	Warning	3239	
	<b>FalseAlarm</b>					
	Value Range for False Alarm	The permitted values for the FalseAlarmReason are defined as an hierarchy taxonomy (FRSFalseAlarmReasonTaxonomy-v1-0.xml). Note: Must not use an 'Item' that is a BroaderItem of another 'Item' (i.e. Only leaf nodes are valid)	INSERT, AMEND	Error	3111	
	Other option for FalseAlarmReason	"OtherAttributeRule" - FalseAlarm / FalseAlarmReason - If the field value 'Other=yes' from the taxonomy file is selected then a text description is required in the 'Other' attribute. The 'Other' attribute must not be populated unless the field value is 'Other=yes'.	INSERT, AMEND	Error	3113	
	<b>SpecialService</b>					
	Value range for SpecialServiceType	The permitted values for the SpecialServiceType element are dependent upon the values governed by the following taxonomies: FRSSpecialServiceTaxonomy-v1-0.xml. Note: Must not use an 'Item' that is a BroaderItem of another 'Item' (ie. Only leaf nodes are valid).	INSERT, AMEND	Error	3122	
	Other option for SpecialServiceType	"OtherAttributeRule" - SpecialService / SpecialServiceType - If the field value 'Other=yes' from the Taxonomy file is selected then a text description is required in the 'Other' attribute. The 'Other' attribute must not be populated unless the field value is 'Other=yes'.	INSERT, AMEND	Error	3134	
	RTC Details	If (IncidentStatus >= '60=Recorded') then the RTC structure details must only be populated when: (IncidentCategory = 'SpecialService' or 'Fire') AND IsRTC = 'yes'	INSERT, AMEND	Warning	3127	
	RTC Extrication Details	At least one occurrence of the Extrication structure within the Extrications structure must be populated if ExtricationsInvolved = 'yes'	INSERT, AMEND	Warning	3128	
	HazardousMaterials Details	Hazardous Materials structure must be populated when: HazardousMaterialsInvolved = 'yes' and IncidentStatus >= '60=Recorded'	INSERT, AMEND	Warning	3123	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Mapping for SpecialServiceType	The permitted values for the SpecialServiceType element should be dependent upon the values governed by the following taxonomy mapping file: FRSIncidentSpecialServiceMapping.xml	INSERT, AMEND	Information	3124	
	Inclusion of SpecialServiceType	The 'SpecialServiceType' element must be only be populated if the (IncidentCategory = 'SpecialService') and the SpecialService structure is present.	INSERT, AMEND	Error	3125	
	<b>SpecialService / RTC</b>					
	Other option for RTC VehicleType	"OtherAttributeRule" - SpecialService / RTC / Extractions / Extrication / VehicleType - If the field value '99=Other' is selected then a text description is required in the 'Other' attribute. The 'Other' attribute must not be populated unless the field value is '99=Other'.	INSERT, AMEND	Warning	3129	
	Other option for RTC VehiclePosition	As "OtherAttributeRule" - For SpecialService / RTC / Extractions / Extrication / VehiclePosition	INSERT, AMEND	Warning	3130	
	Other option for RTC MethodUsed	As "OtherAttributeRule" - For SpecialService / RTC / Extractions / Extrication / MethodUsed	INSERT, AMEND	Warning	3131	
	RTC Multiple Vehicle Details	The three fields: NumberOfTwoWheeledVehicles, NumberOfSmallVehicles, NumberOfLargeVehicles must add up to a value > 1 if PropertyType = '350' (MultipleVehicles)	INSERT, AMEND	Warning	3133	
	<b>Fire</b>					
	Inclusion of Building structure	The Building structure can only be included if the IncidentCategory is 'Fire' and the PropertyCategory attribute of the PropertyType (populated from the FRSPROPERTYTypeTaxonomy-v1-0.xml file) is equal to ('Dwelling' or 'OtherResidential' or 'NonResidential')	INSERT, AMEND	Error	3211	
	Inclusion of OutdoorArea structure	The OutdoorArea structure can only be included if the IncidentCategory is 'Fire' and the PropertyCategory attribute of the PropertyType (defined in the FRSPROPERTYTypeTaxonomy-v1-0.xml) is equal to 'Outdoor' or 'OutdoorStructure'.	INSERT, AMEND	Error	3213	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
		<b><u>Checking Primary/Secondary/Chimney Fires</u></b>				
	IsPrimaryFire Setting	IsPrimaryFire should be set to 'yes' if any of the following are true: a) VictimsInvolved = 'yes' b) the Number of Vehicles Deployed is 5 or more c) the Taxonomy PropertyType entry has IsPrimaryFire attribute set to 'yes' and IsDerelict is 'no'  Note: The rows below provide the specific fields that need to be checked.	INSERT, AMEND	Warning	3232	
	Primary Fire Persons Involved Designation	If the (PersonsInvolved structure is present) AND (VictimInvolved = 'yes') then the IsPrimaryFire must be 'yes'.				Must be a Primary Fire if Victims Involved
	Primary Fire Vehicles Designation	If the (Number of Vehicles Deployed involved is 5 or more) then IsPrimaryFire must be 'yes'				Must be a Primary Fire if 5 or more appliances deployed
	Primary Fire Building Only Designation	If ((VictimsInvolved = 'no' and PersonsInvolved structure is present) AND (NumberOfVehiclesDeployed < 5)) AND (PropertyType IsPrimaryFire attribute = 'yes') AND (IsChimneyFire = 'no' or BuildingStructure is not present) AND (IsDerelict = 'no') then IsPrimaryFire must be 'yes'				Must be a Primary Fire if the PropertyType is indicated as a Primary Fire and it's not Derelict or a Chimney fire
	Primary Fire Property Type Designation	If ((VictimsInvolved = 'no' and PersonsInvolved structure is present) AND (NumberOfVehiclesDeployed < 5)) AND (PropertyType IsPrimaryFire attribute = 'no') then IsPrimaryFire must be 'no'				It cannot be a Primary Fire if the PropertyType is not designated as a PrimaryFire unless Victims Involved or 5 or more appliances deployed
	PrimaryFire and ChimneyFire conflict	If ((VictimsInvolved = 'no' and PersonsInvolved structure is present) AND (NumberOfVehiclesDeployed < 5)) AND (PropertyType IsPrimaryFire attribute = 'yes') AND (IsChimneyFire = 'yes') then IsPrimaryFire must be 'no' Note: A Secondary Fire is defined as IsChimneyFire and IsPrimaryFire are both set to 'no.'	INSERT, AMEND	Warning	3245	If a Property is a Chimney Fire it can't be a Primary Fire
	DerelictProperty and ChimneyFire conflict	If IsDerelict is 'yes' AND BuildingStructure is present then IsChimneyFire must be 'no'	INSERT, AMEND	Warning	3246	If a Property is Derelict then it can't be a Chimney Fire

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Inclusion of PrimaryFire structure	The PrimaryFire structure can only be included if the IsPrimaryFire is 'yes'	INSERT, AMEND	Warning	3235	Do not supply Primary Fire questions unless it is a Primary Fire
	WereAlarmSystemsPresent	AlarmSystemsPresent structure must only be populated if WereAlarmSystemsPresent = 'yes'	INSERT, AMEND	Error	3203	
	WereSafetySystemsPresent	SafetySystemsPresent structure must only be populated if WereSafetySystemsPresent = 'yes'	INSERT, AMEND	Error	3204	
	ManualSystemsUsed	ManualSystemsPresent structure must only be populated if ManualSystemsUsed = 'yes'	INSERT, AMEND	Error	3205	
	BuildingFacilitiesPresent	BuildingFacilitiesPresent structure must only be populated if BuildingFacilitiesPresent = 'yes' and the (PropertyCategory = 'Dwelling', 'NonResidential' or 'OtherResidential')	INSERT, AMEND	Error	3206	
	Explosion Details	ExplosionDetailsStructure must only be populated if ExplosionInvolved = 'yes'	INSERT, AMEND	Error	3207	
	<b><u>Fire / (PrimaryFire structure not present) (i.e. Secondary or Chimney Fires)</u></b>					
	Derelict Property Population	If the Mobilise Incident Type is '43=DERELICT PROPERTY' then default the IsDerelict to 'yes'.	INSERT, AMEND	Information	3202	
	Chimney Fire population	If the (Mobilise Incident Type is '39=CHIMNEY' or '40=CHIMNEY THATCH') and (PropertyCategory = 'Dwelling', 'NonResidential' or 'OtherResidential') then the IsChimneyFire should be set to 'yes'.	INSERT, AMEND	Information	3212	
	<b><u>Fire / PrimaryFire</u></b>					
	PropertyType structure within PrimaryFireStructure	The PropertyCategory attribute for the designated PropertyType (defined in the FRSPROPERTYTypeTaxonomy-v1-0.xml) determines which of the child structures (e.g. Dwelling, Aircraft) within the PrimaryFireStructure must be included if the PrimaryFire structure is present.	INSERT, AMEND	Error	3244	
	<b><u>Fire / PrimaryFire / Outdoor</u></b>					
	Outdoor Fire Large Area	If the OutdoorArea DamageArea = '12' (Over 10,000 sq metres) then the LargeAreaSize must be populated and greater than one.	INSERT, AMEND	Warning	3241	



Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	<b><u>Fire / PrimaryFire / Dwelling or NonResidential or OtherResidential (i.e. Buildings)</u></b>					
	OccupationStatus for Secondary Fire	If the (IsPrimaryFire value = 'no' and the IsChimneyFire='no' and Building structure is present) then the NormalOccupationStatus must be set to '0' (Not Known) and OccupiedAtTimeOfIncident must be set to 'no'.	INSERT, AMEND	Warning	3242	
	Main Cause of Fire MakeModel	If the (MainCause is present and has a value of '4', '5', '17', '43', '44' or '56') then the MakeModelDescription should have a value.	INSERT, AMEND	Warning	3247	
	LateCallNoDelay	If (LateCall = 'yes' and PrimaryFire structure is present) then PrimaryFire / Action / StartingDelay must be '1 = No Delay'.	INSERT, AMEND	Warning	3248	
	LateCallFireSizeOnArrival	If (LateCall = 'yes' and PrimaryFire structure is present) then PrimaryFire / ... / Damage / FireSizeOnArrival must be '98 = Not applicable'.	INSERT, AMEND	Warning	3341	
	MainSourceOfIgnition PoweredBy	If the IgnitionSourcePower attribute of the IgnitionSource is set to a value, then the IgnitionSourcePower must be set to the same value if present.	INSERT, AMEND	Error	3250	
	MotiveAndCause	If (PrimaryFire structure is present) and the IncidentStatus >= '60 = Recorded'), then the Cause (Motive) code and the FireCause attribute of PrimaryFire / MainCause code (e.g. Faulty fuel supply – Gas) must have the same value, or there is no FireCause attribute value (meaning applies for all).	INSERT, AMEND	Warning	3287	
	SafetySystem Operated and Poor Outcome	If (IncidentCategory = 'Fire') and the IncidentStatus >= '60 = Recorded'), then the SafetySystem / Operated code and the AlarmSystemOperated attribute of PoorOutcome code (e.g. Alarm battery missing) must have the same value, or there is no attribute value (meaning applies for all).	INSERT, AMEND	Warning	3288	
	Floor of origin of fire highest	If (PropertyCategory is ('Dwelling', 'NonResidential', 'OtherResidential') and the IncidentStatus >= '60 = Recorded') then the FloorOfOrigin must be less than or equal to FloorsAboveGround or FloorOfOrigin = 99	INSERT, AMEND	Warning	3290	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Floor of origin of fire lowest	If (PropertyCategory is ('Dwelling', 'NonResidential', 'OtherResidential') and the IncidentStatus >= '60 = Recorded') then the FloorOfOrigin must be >= (0 – FloorsBelowGround)	INSERT, AMEND	Warning	3291	
	RoomSize less than Floor Size	If (PropertyCategory is ('Dwelling', 'NonResidential', 'OtherResidential') and the IncidentStatus >= '60 = Recorded') then the OriginRoomSize value must be < = OriginFloorSize	INSERT, AMEND	Warning	3294	
	Damage Area Start and End	If (PropertyCategory is ('Dwelling', 'NonResidential', 'OtherResidential') and the IncidentStatus >= '60 = Recorded') then the FireDamageArea value must be < = TotalDamageArea	INSERT, AMEND	Warning	3295	
	Other option for OriginOfCall	"OtherAttributeRule" - IncidentAtCall / OriginOfCall - If the field value '99=Other' is selected then a text description is required in the 'Other' attribute. The 'Other' attribute must not be populated unless the field value is '99=Other'.	INSERT, AMEND	Warning	3251	
	Other option for PFMainCause	As "OtherAttributeRule" - For Fire / Primary Fire / CauseAndReason / MainCause	INSERT, AMEND	Warning	3252	
	Other option for PFIgnitionSource	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / CauseAndReason / IgnitionSource	INSERT, AMEND	Warning	3253	
	Other option for PFIgnitionSourcePower	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / CauseAndReason / IgnitionSourcePower	INSERT, AMEND	Warning	3254	
	Other option for PFCausedBy	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / CauseAndReason / CausedBy	INSERT, AMEND	Warning	3255	
	Other option for PFItemFirstIgnited	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / CauseAndReason / ItemFirstIgnited	INSERT, AMEND	Warning	3256	
	Other option for PFItemResponsibleForSpread	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / CauseAndReason / ItemResponsibleForSpread	INSERT, AMEND	Warning	3257	
	Other option for OtherHumanFactor	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / CauseAndReason / OtherHumanFactor	INSERT, AMEND	Warning	3258	
	Other option for HowDiscovered	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Discovery / HowDiscovered	INSERT, AMEND	Warning	3270	
	Other option for PFExplosionContainers	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / CauseAndReason / ExplosionContainers	INSERT, AMEND	Warning	3259	
	Other option for PFMainActionFRS	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Action / MainActionFRS	INSERT, AMEND	Warning	3260	
	Other option for PFManualSystem-Type	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Action / ManualSystems / ManualSystem / Type	INSERT, AMEND	Warning	3261	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Other option for PFMainActionNonFRS	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Action / MainActionNonFRS	INSERT, AMEND	Warning	3268	
	<b><u>Fire / PrimaryFire / Dwelling</u></b>					
	Other option for Dwelling-SpecialConstruction	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Dwelling / SpecialConstruction	INSERT, AMEND	Warning	3262	
	Other option for Dwelling-AlarmSystem-Type	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Dwelling / SafetySystems / AlarmSystemsPresent / System / Type	INSERT, AMEND	Warning	3263	
	Other option for Dwelling-AlarmSystem-PoorOutcome	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Dwelling / SafetySystems / AlarmSystemsPresent / System / ReasonForPoorOutcome	INSERT, AMEND	Warning	3264	
	Other option for Dwelling-SafetySystem-Type	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Dwelling / SafetySystems / SafetySystemsPresent / System / Type	INSERT, AMEND	Warning	3265	
	Other option for Dwelling-SafetySystem-PoorOutcome	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Dwelling / SafetySystems / SafetySystemsPresent / System / ReasonForPoorOutcome	INSERT, AMEND	Warning	3266	
	Other option for Dwelling-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Dwelling / FireStartLocation	INSERT, AMEND	Warning	3267	
	Other option for Dwelling-HouseholdOccupancyType	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Dwelling / CauseAndReason / HouseholdOccupancyType	INSERT, AMEND	Warning	3269	
	<b><u>Fire / PrimaryFire / OtherResidential</u></b>					
	Other option for OtherResidential-SpecialConstruction	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / OtherResidential / SpecialConstruction	INSERT, AMEND	Warning	3271	
	Other option for OtherResidential-AlarmSystem-Type	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / OtherResidential / SafetySystems / AlarmSystemsPresent / System / Type	INSERT, AMEND	Warning	3272	
	Other option for OtherResidential-AlarmSystem-PoorOutcome	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / OtherResidential / SafetySystems / AlarmSystemsPresent / System / ReasonForPoorOutcome	INSERT, AMEND	Warning	3273	
	Other option for OtherResidential-SafetySystem-Type	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / OtherResidential / SafetySystems / SafetySystemsPresent / System / Type	INSERT, AMEND	Warning	3274	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Other option for OtherResidential-SafetySystem-PoorOutcome	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / OtherResidential / SafetySystems / SafetySystemsPresent / System / ReasonForPoorOutcome	INSERT, AMEND	Warning	3275	
	Other option for OtherResidential-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / OtherResidential / FireStartLocation	INSERT, AMEND	Warning	3276	
	<b><u>Fire / PrimaryFire / NonResidential</u></b>					
	Other option for NonResidential-SpecialConstruction	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / NonResidential / SpecialConstruction	INSERT, AMEND	Warning	3277	
	Other option for NonResidential-AlarmSystem-Type	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / NonResidential / SafetySystems / AlarmSystemsPresent / System / Type	INSERT, AMEND	Warning	3278	
	Other option for NonResidential-AlarmSystem-PoorOutcome	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / NonResidential / SafetySystems / AlarmSystemsPresent / System / ReasonForPoorOutcome	INSERT, AMEND	Warning	3279	
	Other option for NonResidential-SafetySystem-Type	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / NonResidential / SafetySystems / SafetySystemsPresent / System / Type	INSERT, AMEND	Warning	3280	
	Other option for NonResidential-SafetySystem-PoorOutcome	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / NonResidential / SafetySystems / SafetySystemsPresent / System / ReasonForPoorOutcome	INSERT, AMEND	Warning	3281	
	Other option for NonResidential-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / NonResidential / FireStartLocation	INSERT, AMEND	Warning	3282	
	<b><u>Fire / PrimaryFire / RoadVehicle</u></b>					
	Other option for RoadVehicle-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / RoadVehicle / FireStartLocation	INSERT, AMEND	Warning	3283	
	<b><u>Fire / PrimaryFire / Aircraft</u></b>					
	Other option for Aircraft-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Aircraft / FireStartLocation	INSERT, AMEND	Warning	3284	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	<b><u>Fire / PrimaryFire / RailVehicle</u></b>					
	Other option for RailVehicle-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / RailVehicle / FireStartLocation	INSERT, AMEND	Warning	3285	
	Fire / PrimaryFire / Boat					
	Other option for Boat-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Boat / FireStartLocation	INSERT, AMEND	Warning	3289	
	Deck of origin of fire highest	If (PropertyCategory is ('Boat') and the IncidentStatus >= '60 = Recorded') then the DeckOfOrigin must be less than or equal to DecksAboveGround or DecksOfOrigin = 99	INSERT, AMEND	Warning	3292	
	Deck of origin of fire lowest	If (PropertyCategory is ('Boat') and the IncidentStatus >= '60 = Recorded') then the DecksOfOrigin must be >= (0 – DecksBelowGround)	INSERT, AMEND	Warning	3293	
	<b><u>Fire / PrimaryFire / Outdoor</u></b>					
	Other option for Outdoor-FireStartLocation	As "OtherAttributeRule" - For IncidentOnAttendance / Fire / Primary Fire / Outdoor / FireStartLocation	INSERT, AMEND	Warning	3296	
	<b><u>PersonsInvolved</u></b>					
	AttackOnFirefighters TypeOfAttack	The AttackOnFirefighters structure must only be populated if the AttackOnFirefightersInvolved is 'yes'	INSERT, AMEND	Error	3320	
	Inclusion of EvacuationAssistance structure (BVPI)	The EvacuationAssistanceStructure must be populated if (EvacuationAssistanceInvolved = 'yes') or (PropertyCategory = 'Dwelling' and IncidentCategory = 'Fire')	INSERT, AMEND	Error	3331	
	Evacuation Details for Dwellings	If (PropertyCategory = 'Dwelling' IncidentCategory = 'Fire') then the EvacuationAssistance / WithAssistance and EvacuationAssistance / WithoutAssistance must be populated with at least zero values.	INSERT, AMEND	Error	3332	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	VictimsInvolved and False Alarms	If IncidentCategory = 'FalseAlarm' then VictimsInvolved must be 'no'	INSERT, AMEND	Error	3342	
	Inclusion of Victims structure	The VictimsStructure must only be populated if VictimsInvolved = 'yes'	INSERT, AMEND	Error	3315	
	<b><u>PersonsInvolved / Victims</u></b>					
	Victim ID unique	The victim id must be a unique number for each entry and also run in sequence (e.g. 1,2,3, etc.)	INSERT, AMEND	Error	3301	
	Person Name Fatality population	The PersonGivenName and PersonFamilyName must be populated for Victims with a Type of '1=fatality'	INSERT, AMEND	Warning	3302	
	Person Name Serious Casualty population	The PersonGivenName and PersonFamilyName must be populated for Victims with a Type of '2=injured' casualty and the SeverityOfInjury is '1=Serious'	INSERT, AMEND	Warning	3303	
	Person Name Firefighter population	The PersonNameTitle, PersonGivenName and PersonFamilyName Should be populated for Victims with a Role of '1=firefighter'	INSERT, AMEND	Information	3304	
	Extra Details for Victims	Only one extra Victim detail structures (i.e. 'Fatality', 'Injury', 'Rescued') can be entered, but must match the selected VictimType value	INSERT, AMEND	Error	3305	
	Value of WasRescued flag	If the VictimType is 'Rescued' then the WasRescued must be defaulted to 'yes'	INSERT, AMEND	Error	3306	
	Inclusion of RescueDetails	If WasRescued = 'yes' the RescueDetails must be included	INSERT, AMEND	Error	3307	
	Other option for Victim-LocationAtFireStart	As "OtherAttributeRule" - For Victims / Victim / LocationAtFireStart	INSERT, AMEND	Warning	3308	
	Other option for Victim-WhereFound	As "OtherAttributeRule" - For Victims / Victim / WhereFound	INSERT, AMEND	Warning	3309	
	Other option for Victim-RescueMethod	As "OtherAttributeRule" - For Victims / Victim / RescuedDetails / Method	INSERT, AMEND	Warning	3310	
	Other option for Victim-Fatality-CauseOfDeath	As "OtherAttributeRule" - For Victims / Victim / Fatality / CasueOfDeath	INSERT, AMEND	Warning	3311	
	Other option for Victim-Injured-NatureOfInjury	As "OtherAttributeRule" - For Victims / Victim / Injured / NatureOfInjury	INSERT, AMEND	Warning	3312	
	Other option for Victim-Injured Circumstances	As "OtherAttributeRule" - For Victims / Victim / Injured / Circumstances	INSERT, AMEND	Warning	3313	
	Other option for Victim-Rescued-Circumstances	As "OtherAttributeRule" - For Victims / Victim / Rescued / Circumstances	INSERT, AMEND	Warning	3314	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	<b><u>ResourceUsage</u></b>					
	Vehicle Resources Entry	Resource Usage – At least one 'Vehicle' resource details occurrence must be entered when: (IncidentStatus >= '60=Recorded') and (PropertyType is not '285 = Fire Station')	INSERT, AMEND	Warning	3401	
	Other Resources Entry	Resource Usage – At least one 'Equipment' resource details occurrence should be entered when: (IncidentCategory = 'Fire') and IncidentStatus >= '60=Recorded' and LateCall = 'no'	INSERT, AMEND	Information	3402	
	Equipment Entry	Resource Usage – Must populate at least one 'Equipment' resource details occurrence when EquipmentUsed = 'yes'	INSERT, AMEND	Warning	3403	
	LateCall Fires No Equipment	If (IncidentCategory = 'Fire') and LateCall = 'yes' and IncidentStatus >= '60=Recorded' then no 'Equipment' resource details should normally be recorded	INSERT, AMEND	Information	3416	
	Chronological ordering of Vehicle timings - All	If (IncidentStatus >= '60=Recorded') the TimeMobilised, TimeMobile, TimeAtScene, TimeAvailable must be chronological if the values are populated (TimeMobilised and TimeMobile are optional fields)  Note: TimeMobilise and Time Mobile can have the same value.	INSERT, AMEND	Warning	3411	
	Chronological ordering of Vehicle timings - Attendance Only	If (IncidentStatus >= '60=Recorded') then the TimeAtScene, TimeAvailable must be chronological.	INSERT, AMEND	Warning	3412	
	Incident and Vehicle timings - All Mobilised in order	If (IncidentStatus >= '60=Recorded') and (LateCall = 'no') and (VehicleTimeMobilised is not empty) then the Vehicle TimeMobilised must be greater than or equal to the Incident TimeOfCall and less than or equal to the Incident TimeStoppedMobilising.	INSERT, AMEND	Warning	3413	
	Incident and Vehicle timings – Arrival Time in order	If (IncidentStatus >= '60=Recorded') and (LateCall = 'no') then the Vehicle TimeAtScene must be greater than or equal to the Incident TimeOfCall	INSERT, AMEND	Warning	3414	
	Incident and Vehicle timings – Available to Depart in order	If (IncidentStatus >= '60=Recorded') and (LateCall = 'no') then the Vehicle TimeAvailable must be less than or equal to the (Incident TimeIncidentClosed + 24 hours).	INSERT, AMEND	Warning	3415	
	Other option for VehicleType	Only if the ResourceUsage / Vehicle / Type has an attribute of Other='yes', the 'Other' attribute must be populated.	INSERT, AMEND	Warning	3421	

Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Other option for EquipmentType	Only if the ResourceUsage / Equipment / Type has an attribute of Other='yes', the 'Other' attribute must be populated.	INSERT, AMEND	Warning	3422	
	<b><u>Pre-Publication</u></b> <b><u>(IncidentStatus &gt;= '60=Recorded')</u></b>					
	Incident FRS Query Details	The Incident must have a 'Recorded with Queries' InfoType and Description if the IncidentStatus is '65=Recorded with Queries'.	INSERT, AMEND	Warning	3902	
	Incident FRS Publish Condition Details	The Incident must have a 'Published with Conditions' InfoType and Description if the IncidentStatus is '75=Published with Conditions'.	INSERT, AMEND	Warning	3903	
	Incident NS Query Details	The Incident must have a 'Queried by National Statistics' InfoType and Description if the IncidentStatus is '80=Queried by National Statistics'.	AMEND	Warning	3904	
	VehicleCallSigns	For each Vehicle recorded there must be at least one call sign recorded - either RCCCallSign or FRSCallSign.	INSERT, AMEND	Warning	3910	
	FireOfficerCallSigns	For each FireOfficer recorded there must be at least one call sign recorded - either RCCCallSign or FRSCallSign.	INSERT, AMEND	Warning	3911	
	SpecialServiceType Should be an RTC	If ('IsRTC' from the SpecialServiceType element of the taxonomy: FRSSpecialServiceTaxonomy-v1-0.xml = 'yes') and (IsRTC = 'no') and (IncidentStatus >= '60=Recorded') then the IsRTC field should be set to 'yes'.	INSERT, AMEND	Information	3920	
	SpecialServiceType Should be a HazMat	If ('IsHazMat' from the SpecialServiceType element of the taxonomy: FRSSpecialServiceTaxonomy-v1-0.xml = 'yes') and (HazardousMaterialsInvolved = 'no') and (IncidentStatus >= '60=Recorded') then the HazardousMaterialsInvolved field should be set to 'yes'.	INSERT, AMEND	Information	3921	
	<b><u>Publication</u></b>					



Reference	Rule Name	Description	Operations affected	Error Category	Error No	Notes
	Ready for Publication	The Incident is not ready for Publication as a result of outstanding 'Warnings'.  If the ValidationStatus is 'Full' and the IncidentStatus is greater than or equal to '60=Recorded' (i.e. 60=Recorded, 65=Recorded With Queries, 70=Published, 75=Published With Queries, 80=Statistics Team Queried, 90=Statistics Team Closed), then the validation must not have returned any errors with a category of 'Fatal', 'Error' or 'Warning' from the validation above.	INSERT, AMEND	Error	3999	
<b><u>GET Incident</u></b>						
	Get Incident ID Invalid	The Incident Identifier is not valid or Incident does not exist.  Note: For a Get Incident the user must populate either: The IncidentId, the FRSIncidentNumber or the NationalStatistics Number (all three parts).	GET, AMEND	Error	4001	
<b><u>SEARCH Incidents</u></b>						
	Search Incident Start/End date	For a SearchIncidentRequest the StartDateTime < EndDateTime	SEARCH (REQUEST)	Error	4002	
	Search Incident Start/End Status Range	If the SearchIncidentRequest IncidentStatusTo is populated then the IncidentStatusFrom <= IncidentStatusTo	SEARCH (REQUEST)	Error	4003	
	TerritoryCategory selection	If the user select Incidents using ByTerritoryCategory Structure, then the IncidentIdentifier / FRSId or the ResponsibleParty / FRSId must be populated.	SEARCH (REQUEST)	Error	4004	
	OverTheBorder Selection	OverTheBorder indicator can only be set to 'yes' if the IncidentIdentifier / FRSId and the ResponsibleParty / FRSId are different values (including a value being empty or not populated).	SEARCH (REQUEST)	Error	4005	