ประกาศกระทรวงอุตสาหกรรม

ฉบับที่ ๔๙๖๖ (พ.ศ. ๒๕๖๐)

ออกตามความในพระราชบัญญัติมาตรฐานผลิตภัณฑ์อุตสาหกรรม

พ.ศ. ๒๕๑๑

เรื่อง กำหนดมาตรฐานผลิตภัณฑ์อุตสาหกรรม

สารสนเทศภูมิศาสตร์ - กระบวนการลงทะเบียนรายการ

เล่ม ๑ หลักการพื้นฐาน

อาศัยอำนาจตามความในมาตรา ๑๕ แห่งพระราชบัญญัติมาตรฐานผลิตภัณฑ์อุตสาหกรรม พ.ศ. ๒๕๑๑ ซึ่งแก้ไขเพิ่มเติมโดยพระราชบัญญัติมาตรฐานผลิตภัณฑ์อุตสาหกรรม (ฉบับที่ ๗) พ.ศ. ๒๕๕๘ รัฐมนตรีว่าการกระทรวงอุตสาหกรรมออกประกาศกำหนดมาตรฐานผลิตภัณฑ์อุตสาหกรรม สารสนเทศภูมิศาสตร์ - กระบวนการลงทะเบียนรายการ เล่ม ๑ หลักการพื้นฐาน มาตรฐานเลขที่ มอก. 19135 เล่ม 1 - 2559 ไว้ดังมีรายละเอียดต่อท้ายประกาศนี้

ทั้งนี้ ให้มีผลตั้งแต่วันที่ประกาศในราชกิจจานุเบกษาเป็นต้นไป

ประกาศ ณ วันที่ ๑๔ กุมภาพันธ์ พ.ศ. ๒๕๖๐

อุตตม สาวนายน

รัฐมนตรีว่าการกระทรวงอุตสาหกรรม

มาตรฐานผลิตภัณฑ์อุตสาหกรรม

สารสนเทศภูมิศาสตร์–กระบวนการลงทะเบียนรายการ

เล่ม 1 หลักการพื้นฐาน

มาตรฐานผลิตภัณฑ์อุตสาหกรรมนี้กำหนดขึ้นโดยรับ ISO 19135-1: 2015 Geographic Information – Procedures for item registration – Part 1: Fundamentals มาใช้โดยวิธีพิมพ์ซ้ำ (reprint) ในระดับเหมือนกันทุกประการ (identical) โดยใช้ ISO ฉบับภาษาอังกฤษเป็นหลัก

มาตรฐานผลิตภัณฑ์อุตสาหกรรมนี้ระบุกระบวนการในการจัดทำ การดูแลรักษา และการเผยแพร่ทะเบียนของตัวระบุที่เป็นเอกลักษณ์ ที่ชัดเจนและถาวร รวมถึงความหมายที่กำหนดให้กับรายการสารสนเทศภูมิศาสตร์ เพื่อที่จะบรรลุวัตถุประสงค์ มาตรฐานผลิตภัณฑ์อุตสาหกรรมนี้ได้ระบุองค์ประกอบย่อยของสารสนเทศที่จำเป็นในการจัดการรายการทะเบียนเหล่านั้น

รายละเอียดให้เป็นไปตาม ISO 19135-1: 2015

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 211, *Geographic information/Geomatics*.

This first edition of ISO 19135-1 cancels and replaces ISO 19135:2005, which has been technically revised.

ISO 19135 consists of the following parts, under the general title *Geographic information — Procedures for item registration*:

— *Part 1: Fundamentals*

— *Part 2: XML Schema Implementation*

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Introduction

This part of ISO 19135 specifies procedures for the registration of items of geographic information. ISO/IEC JTC 1 defines registration as the assignment of an unambiguous name to an object in a way that makes the assignment available to interested parties. Items of geographic information that may be registered are members of object classes specified in technical standards such as those developed by ISO/TC 211.

NOTE In this International Standard, the definition of registration has been changed so that registration is the assignment of linguistically independent identifiers, rather than names, to items of geographic information.

Registration of items of geographic information offers several benefits to the geographic information community. Registration

a) supports wider use of registered items both by providing international recognition to the fact that such items conform to an ISO International Standard and by making them publicly available to potential users,

b) provides both immediate recognition to extensions of an International Standard and a source for updates to that International Standard during the regular maintenance cycle,

c) may provide a single mechanism to access information concerning items that are specified in different standards,

d) provides a mechanism for managing temporal change,

NOTE Items specified in a standard or in a register may change over time either due to changes in technology or for other reasons. Published standards do not clearly document what changes may have occurred, and do not include information about earlier versions of specified items. Such information can be maintained in a register.

e) may be used to make sets of standardized tags available for encoding of registered items in data sets, and

f) supports cultural and linguistic adaptability by providing both a means for recording equivalent names of items used in different languages, cultures, application areas and professions and a means for making those equivalent names publicly available.

This part of ISO 19135 specifies procedures to be followed in preparing and maintaining registers of items of geographic information. Any organization may choose to establish registers of items of geographic information that conform to this part of ISO 19135. Annex C is particularly applicable to registers established under the auspices of ISO/TC 211.

A goal of this part of ISO 19135 is to achieve a balance between minimizing the number of registers for items of geographic information and minimizing the burden on the registration authorities.

Following experience of setting up registers in user communities, there are fewer requirements in this version than previously. Because of this, implementations of the previous edition of ISO 19135 should be conformant to this part of ISO 19135. A log of changes from the previous version (ISO 19135:2005) is provided in Annex F.

The level of abstraction for the UML model described in ISO 19135-1 is the "Abstract Schema level" according to ISO 19103 requirement 4.

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INTERNATIONAL STANDARD ISO 19135-1:2015(E)

Geographic information — Procedures for item registration —

Part 1: Fundamentals

1 Scope

This part of ISO 19135 specifies procedures to be followed in establishing, maintaining, and publishing registers of unique, unambiguous, and permanent identifiers and meanings that are assigned to items of geographic information. In order to accomplish this purpose, this part of ISO 19135 specifies elements that are necessary to manage the registration of these items.

2 Conformance

2.1 General

This part of ISO 19135 defines three conformance classes for registers:

— Core schema – the minimum requirements for establishing, maintaining, and publishing registers;

— Extended schema – additional requirements to be conformant to the most frequently used model elements in the previous edition (ISO 19135:2005);

— Hierarchical register.

To conform to this part of ISO 19135, a register of items of geographic information shall satisfy all of the requirements specified in one of the three conformance levels described in 2.2 to 2.4, with the corresponding abstract test suite given in Annex A.

2.2 Core conformance class

Table 1 defines the characteristics of the core conformance class.

Table 1 — Core conformance class

Conformance class identifier	core
Standardization target	registers
Dependency	ISO 19103: Conformance classes UML 2, Model documentation ISO 19115-1: Clause 2 Conformance requirements
Requirements	All requirements in Clauses 5 to 7
Tests	All tests in A.1

2.3 Extended conformance class

Table 2 defines the characteristics for the extended conformance class.

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Table 2 — Extended conformance class

Conformance class identifier	extended-schema
Standardization target	registers
Dependency	hierarchical
Requirements	All requirements in Annex B
Tests	All tests in A.2

2.4 Hierarchical register conformance class

Table 3 defines the characteristics of the conformance class for hierarchical registers.

Table 3 — Hierarchical register conformance class

Conformance class identifier	hierarchical
Standardization target	registers
Dependency	core
Requirements	All requirements in Clause 8
Tests	All tests in A.3

3 Normative references

The following documents, in whole or in part, are normatively referenced in this document indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 19103:—[1)], *Geographic information — Conceptual schema language*

ISO 19115-1:2014, *Geographic information — Metadata — Part 1: Fundamentals*

4 Terms, definitions, and abbreviations

4.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

4.1.1
clarification
<register> non-substantive change to a register item

Note 1 to entry: A non-substantive change does not change the semantics or technical meaning of the item. Clarification does not result in a change to the *registration* (4.1.12) status of the register item.

4.1.2
control body
<register> group of technical experts that makes decisions regarding the content of a *register* (4.1.9)

4.1.3
geographic information
information concerning phenomena implicitly or explicitly associated with a location relative to the Earth

[SOURCE: ISO 19101-1:2014, 4.1.18]

1) To be published.

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4.1.4
hierarchical register
structured set of *registers* (4.1.9) for a domain of register items, composed of a *principal register* (4.1.8) and a set of *subregisters* (4.1.16)

EXAMPLE ISO 6523 is associated with a hierarchical register. The principal register contains organization *identifier* (4.1.5) schemes and each subregister contains a set of organization identifiers that comply with a single organization identifier scheme.

4.1.5
identifier
linguistically independent sequence of characters capable of uniquely and permanently identifying that with which it is associated

4.1.6
invalidation
<register> action taken to correct a substantive error in a register item

4.1.7
item class
set of items with common properties

Note 1 to entry: Class is used in this context to refer to a set of instances, not the concept abstracted from that set of instances.

4.1.8
principal register
register (4.1.9) that contains a description of each of the *subregisters* (4.1.16) in a *hierarchical register* (4.1.4)

4.1.9
register
set of files containing *identifiers* (4.1.5) assigned to items with descriptions of the associated items

4.1.10
register manager
organization to which management of a *register* (4.1.9) has been delegated by the *register owner* (4.1.11)

Note 1 to entry: In the case of an ISO register, the register manager performs the functions of the registration authority specified in the ISO/IEC Directives.

4.1.11
register owner
organization that establishes a *register* (4.1.9)

4.1.12
registration
assignment of a permanent, unique, and unambiguous *identifier* (4.1.5) to an item

4.1.13
registry
information system on which a *register* (4.1.9) is maintained

4.1.14
retirement
<register> declaration that a register item is no longer suitable for use in the production of new data

Note 1 to entry: The status of the retired item changes from "valid" to "retired". A retired item is kept in the register to support the interpretation of data produced before its retirement and has not been superseded by another item.

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4.1.15
submitting organization
organization authorized by a *register owner* (4.1.11) to propose changes to the content of a *register* (4.1.9)

4.1.16
subregister
part of a *hierarchical register* (4.1.4) that contains items from a partition of a domain of information

4.1.17
supersession
<register> declaration that a register item has been retired and replaced by one or more new items

Note 1 to entry: The status of the replaced item changes from "valid" to "superseded".

4.1.18
technical standard
<register> standard containing the definitions of *item classes* (4.1.7) requiring *registration* (4.1.12)

4.2 Abbreviations

JTC 1 Joint Technical Committee 1

TMB Technical Management Board

UML Unified Modelling Language

4.3 Notation

The conceptual schema specified in this part of ISO 19135 is described using the Unified Modelling Language (UML) (ISO/IEC 19505), following the guidance of ISO 19103.

By convention within ISO/TC 211, in earlier versions of standards, the names of UML classes, with the exception of basic data type classes, include a two-letter prefix that identifies the standard and the UML package in which the class is specified. For newer versions of ISO/TC 211 standards, this convention is no longer applied. In this part of ISO 19135, the two letter prefix of "RE" applies for classes that are continued from the previous edition. Classes and packages new to this edition do not use an abbreviation.

Several model elements used in this schema are specified in packages specified in other ISO/TC 211 standards, as shown in Table 4.

Table 4 — UML packages from ISO 19115-1

Prefix	Package
CI	Citation and responsible party information
MD	Metadata

5 Roles and responsibilities in the management of registers

5.1 General

Several organizations play a role in the management of a register (Figure 1). The roles and their relationships are illustrated as a conceptual model using UML notation.

NOTE Although they are not organizations, register and registry are included in Figure 1 because they are the basis of the roles played by the organizations included.

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For some simple registers, several roles may be handled by the same organization. For example, the role of the control body could be handled by the register manager. It is up to each register to give a more detailed description of the management of roles.

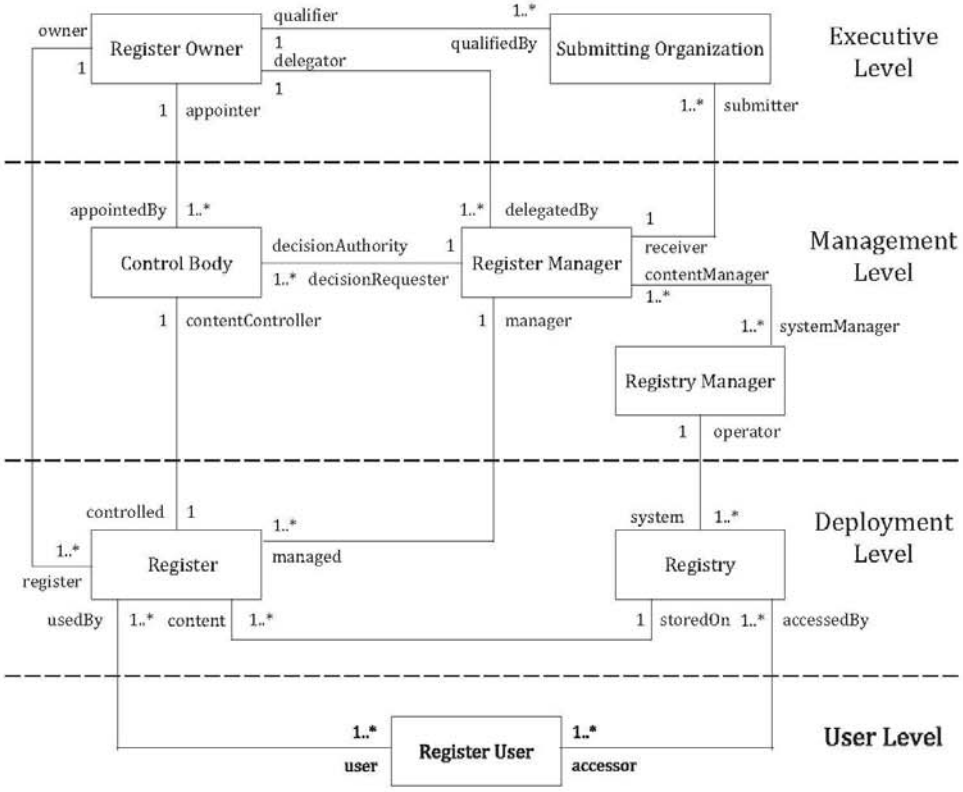

Figure 1 — Organizational relationships

5.2 Register owner

A register owner is an organization that

a) has established one or more registers, and

b) has primary responsibility for the management, dissemination and intellectual content of those registers.

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Requirement 1. The register owner shall set terms and conditions regarding different levels of access to the register and making the contents available to the public. In addition, the register owner shall specify the time period in which the approval process shall be completed.

Requirement 2. The register owner shall appoint a register manager (5.3). A register owner may serve as the register manager for any register that it has established or it may appoint another organization to serve as the register manager.

Requirement 3. The register owner shall decide whether a control body (5.5) is required for the register and if so appoint the control body. The register owner may serve as the control body for any register that it has established or it may delegate that role to a subgroup within the organization or to the register manager.

Requirement 4. A register owner shall specify the criteria that determine which organizations may act as submitting organizations (5.4).

Requirement 5. The register owner shall clarify the process for a submitting organization to appeal decisions of the control body (if such a body is appointed). The register owner may establish a procedure for such a process. The specification of this procedure shall include appropriate time limits for completion of the process. An alternative solution may be for a submitting organization to resubmit a new proposal with changes or a better justification.

5.3 Register manager

5.3.1 Appointment of a register manager

A register owner may delegate the role of register manager to another organization. This is the usual case for registers established by ISO or IEC Technical Committees. A register manager may manage multiple registers.

5.3.2 Responsibilities of a register manager

Requirement 6. A register manager shall manage a register in conformance with Clause 6.

Requirement 7. Upon request, the register manager shall distribute an information package containing a description of the register and how to submit proposals for changes to the content of the register. The information package shall describe what proposed changes to the content may be considered to be substantive (6.3.1).

Requirement 8. The register manager shall accept proposals from submitting organizations and manage the proposals as specified in 6.4. The register manager shall pass proposals to the control body (5.5) for decisions as to acceptability and shall serve as the point of contact between the control body and the submitting organization for negotiations regarding changes to the proposal.

Requirement 9. The register manager shall determine whether a submitting organization is qualified in accordance with the criteria established by the register owner.

5.4 Submitting organizations

A submitting organization is an organization that is qualified under criteria determined by the register owner to propose changes to the content of a register.

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5.5 Control body

A control body is a group of technical experts appointed by a register owner to decide on the acceptability of proposals for changes to the content of a register (Clause 7, Clause 8, and Annex B). A control body may not be required for simple registers.

Requirement 10. If a control body is appointed, it shall accept proposals from the register manager and render a decision regarding each proposal within the time limits specified by the register owner.

5.6 Registry manager

A registry manager is a person or an organization responsible for the day-to-day management of a registry. A register manager may engage a third-party service provider to perform this service.

Requirement 11. A registry manager shall ensure the integrity of any register held in the registry (6.8) and shall provide means for electronic access to the registry for register managers, control body members, and register users.

5.7 Register user

Register users access a registry in order to use one or more of the registers held in that registry. Register users include any person or organization interested in accessing or influencing the content of a register. Users have a variety of requirements from registered data:

— developers of standards and specifications want to re-use items specified in a register;

— data producers want to use in their products items specified in a register;

— data users want to understand the meaning of register items;

— system developers want to provide a capability to use register items in data production, interchange, or consumption.

Register users may have different levels of access to the register as defined by the register manager.

Register users vary in the frequency of access they need, from the occasional data user who may need to determine the meaning of a register item on a very infrequent basis, to the data producer who may need to use values from a register many times a day.

Requirement 12. Register managers shall consider the requirements of different categories of users in selecting methods for publishing the content of a register (Clause 7, Clause 8, and B.2).

6 Management of registers

6.1 Establishment of registers

Any organization may establish a register. A register established by an ISO Technical Committee (TC) or Subcommittee is an ISO register. In establishing registers, ISO Technical Committees are required to follow the general rules specified in the ISO/IEC Directives, but may develop detailed rules and procedures to satisfy their own requirements.

Establishment of ISO/TC 211 registers is described in Annex C.

Requirement 13. Every register shall have a technical document describing the item classes to be registered.

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6.2 Status of register items

Requirement 14. Items shall be individually managed, moving through a set of well-defined states. Information about the temporal history of each item shall be maintained.

Normally only the valid, superseded, and retired items are exposed when the contents of a register are made available to the public. Invalid items may also be exposed. Proposed and unaccepted items are part of the approval mechanism and are only required for management of the register.

An item in a register has a period of validity that begins on the date on which the proposal to register the item was accepted and ends on the date on which a decision to supersede, retire, or invalidate the item has been made. Although retired, superseded, and invalid items are no longer valid for use in the production of new data, they are kept in the register to support the interpretation of data produced before their retirement, supersession, or invalidation

NOTE This does not imply that use of an unregistered item specified in a standard is somehow "invalid" until the item is registered. However, a reference using an item identifier can apply only to the specification of a register item.

Geographic information concepts represented in a register may change over time due to changes in requirements or technology, or for other reasons. By defining a series of items of the same item class, each with associated dates of validity, a register can identify how a particular concept has changed over a period of time.

Requirement 15. If an item is superseded by another item, the date the succession occurred shall be captured, along with references to and from the item that superseded it. At any given time, only one item in the series shall be "valid" (see 7.5.2).

6.3 Change of status of register items

6.3.1 General

Submitting organizations may make requests to add or modify register items. Modifications are of two kinds: simple clarifications that cause no substantive change to an item (6.3.3) and substantive changes.

6.3.2 Addition

Addition is the insertion into a register of an item that describes a concept not described by an item already in the register.

6.3.3 Clarification

Clarifications correct errors in spelling, punctuation, or grammar.

Requirement 16. A clarification shall not cause any substantive semantic or technical change to a registered item.

Requirement 17. Clarification shall be accomplished by updating the existing item in the register. The clarification shall be recorded with a justification of the change and the date on which the register transaction was made.

6.3.4 Invalidation

Requirement 18. If an item in a register is found to have substantive error, it shall be removed from the register entirely or it shall be left in the register, have its status changed to invalid, have a reference to the item(s) that replaced it, and have the date when the register transaction was made.

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6.3.5 Retirement

Submitting organizations may submit requests for retirement of registered items that are no longer useful for producing data.

Requirement 19. Retirement shall be accomplished by leaving the item in the register, having its status changed to retired, and including the date on which the register transaction was made.

6.3.6 Supersession

Requirement 20. If a register item is deemed to be no longer suitable for the use in the production of new data and has been superseded by a new register item, either (a) it shall be removed from the register or (b) the original item shall remain in the register, shall have its status changed to superseded, have a reference to the item(s) that superseded it, including the date on which the register transaction was made.

6.4 Submission of proposals

6.4.1 Process of submitting

Figure 2 describes the process of submitting proposals. An example of the process for submitting proposals for registration of items of geographic information including the appeal process is illustrated in Annex D.

The internal process for submitting proposals may vary from register to register; however, the procedures in 6.4.2 shall be fulfilled.

6.4.2 Submitting organizations

The submitting organization is responsible for

a) ensuring that proposals are complete,

b) coordinating proposals with other submitting organizations, if desired,

c) forwarding the proposal to the appropriate register manager, and

d) explaining proposals to the register manager or register owner, if necessary.

6.4.3 Register manager

The register manager

a) shall receive proposals from qualified submitting organizations,

b) shall review proposals for completeness, and return proposals to the submitting organization if the proposal is incomplete or if the submitting organization is not qualified,

c) shall initiate the approval process (6.5), and

d) if necessary, generate a proposal management record.

Requirement 21. The register manager shall review proposals received from third parties for completeness and return proposals to the submitting organization if the proposal is incomplete or if the submitting organization is not qualified, else initiate the approval process.

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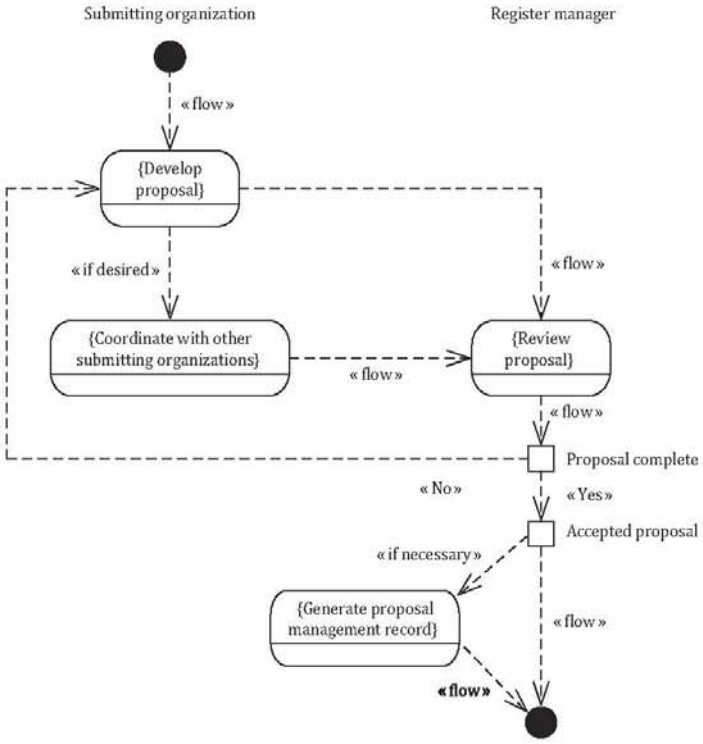

Figure 2 — Submission of proposals

6.5 Approval process

The process for determining the acceptability of proposals may vary between registers. An example of the approval process is described in Figure D.1.

Requirement 22. The approval process shall be completed within the time period specified by the register owner.

6.6 State of a register

It is necessary to be able to specify a unique state in the evolution of the contents of a register since those contents will evolve over time. This part of ISO 19135 specifies two alternative mechanisms, distinguished by the rate of change of the contents of a register, for specifying such a unique state.

a) For slowly changing registers, e.g. those disseminated as published hard copy documents, a version may be specified.

b) For rapidly changing registers, e.g. those made available as online interactive databases, a date of latest change may be specified.

6.7 Publication

Requirement 23. A registry manager shall ensure that information about valid, invalidated, superseded, or retired items in the register is readily available to users.

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The method for providing this information may depend upon the requirements of the members of the user community (5.7).

A transactional approach is recommended to support users with occasional requirements for information about specific register items. The register should be accessible to users through an Internet website or other electronically processable form, within appropriate access constraints. Register services should support queries based on item identifiers or searches based on keywords occurring in definitions or other elements of information about the register item.

A transfer approach is recommended to support users with requirements for frequent access to many of the items in a register. The register manager should be prepared to provide copies of the set of valid items contained in the register as digital data on a physical distribution medium or on paper. The register manager may also support a means for updating distributed copies. The register manager may charge for the cost of reproduction and distribution of such copies.

6.8 Integrity

A register manager should ensure, for each register that it manages, that

a) all aspects of the registration process are handled in accordance with good business practice,

b) the content of the register is accurate, and

c) only authorized persons can make changes to the register.

6.9 Registration proposals

6.4 and Annex B specifies information that is significant to submit a proposal to a register manager. Additional information requirements may be specified for an item class by the technical documents that specify that item class. Details may be obtained from the relevant register manager.

An example of a detailed proposal is described in Annex E.

7 Register schema

7.1 General

The schema specified in this Clause describes the core structure of a register. The schema consists of a single package comprised of 4 classes that represent information held in the register, together with interfaces and enumerations used by attributes of these classes. The schema is shown in Figure 3.

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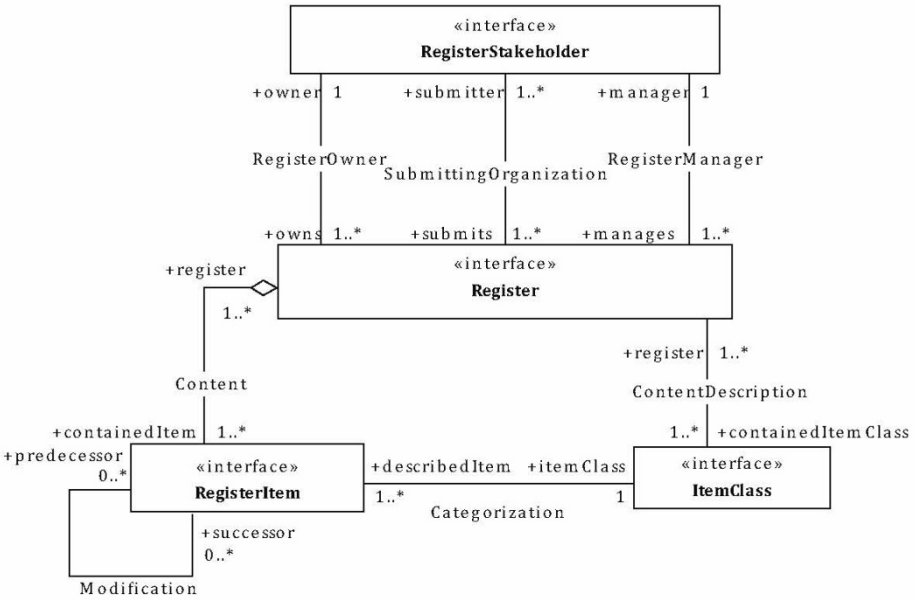

Figure 3 — Core register schema

Requirement 24.	The core register shall conform to the register schema as specified in UML in Clause 7.

7.2 Register

7.2.1 Register schema

The model elements for the schema are shown in Figure 4.

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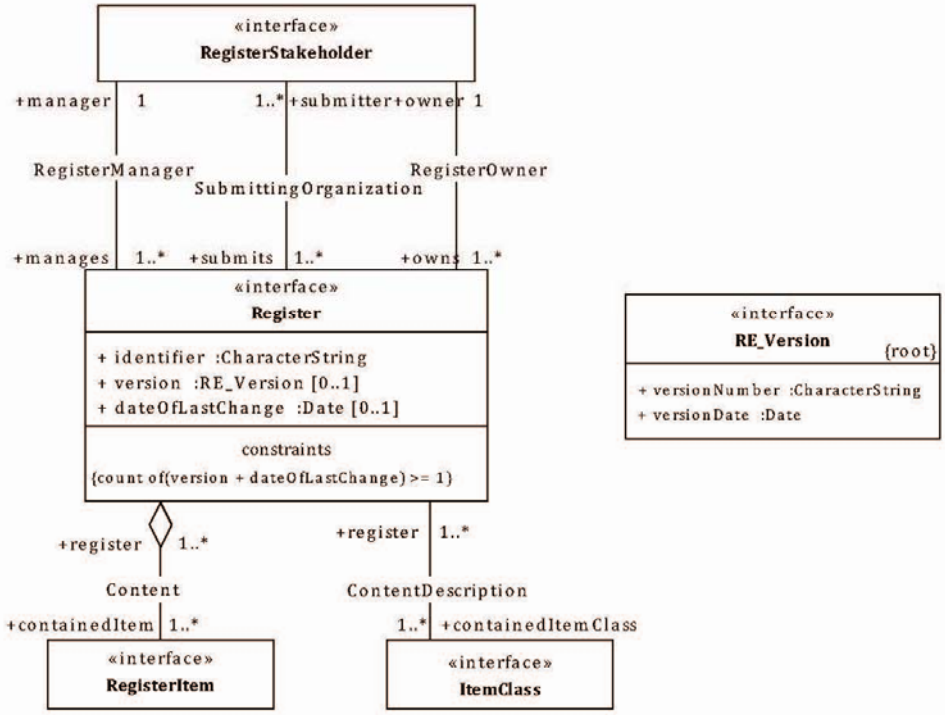

Figure 4 — Register

7.2.2 Object Type: Register

Register	
Definition: The class Register specifies information about the register itself.	
Supertype of: RE_Register	
Type: Object Type	
Attribute:	
Name:	identifier
Definition:	The attribute "identifier" represents a designator that is used to uniquely denote that register within the set of registers maintained by the register owner. It is represented as a CharacterString containing a compact and human-readable designator. EXAMPLE "ISO/TC 211 Register of Feature Data Dictionaries and Feature Catalogues" might be the identifier of the principal register of a hierarchical register. "DGIWG FACC Data Dictionary" and "IHO S-57 Object Dictionary" might be the identifiers of subregisters within the hierarchy.
Multiplicity:	1
Value type:	CharacterString
Attribute: Name:	version

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Definition:	The conditional attribute "version" is represented as an instance of class RE_Version that specifies a unique state in the life of the register.
Multiplicity:	0..1
Value type:	RE_Version
Attribute:	
Name:	dateOfLastChange
Definition:	The conditional attribute "dateOfLastChange" is represented as an instance of the class < Date > [ISO 19103] and specifies the (full precision) date of the most recent change to the status of an item in the register was made.
Multiplicity:	0..1
Value type:	Date
Association role:	
Name:	containedItemClass
Definition:	The role "containedItemClass" describes that the "ItemClass" for the association "Content-Description" contains the item classes in the register.
Multiplicity:	1..*
Value type:	ItemClass (feature type)
Association role:	
Name:	manager
Definition:	The role name "manager" identifies the RegisterStakeholder as the manager of the register.
Multiplicity:	1
Value type:	RegisterStakeholder (feature type)
Association role:	
Name:	owner
Definition:	The role name "owner" identifies the RegisterStakeholder as the owner of the register.
Multiplicity:	1
Value type:	RegisterStakeholder (feature type)
Association role:	
Name:	submitter
Definition:	The role name "submitter" identifies the RegisterStakeholder as the submitting organization to the register.
Multiplicity:	1..*
Value type:	RegisterStakeholder (feature type)
Association role:	
Name:	containedItem
Definition:	The role "containedItem" connects an instance of the class Register to one or more instances of RegisterItem.
Multiplicity:	1..*
Value type:	RegisterItem (feature type)

7.3 RegisterStakeholder

7.3.1 RegisterStakeholder schema

The model elements for the schema are shown in Figure 5.

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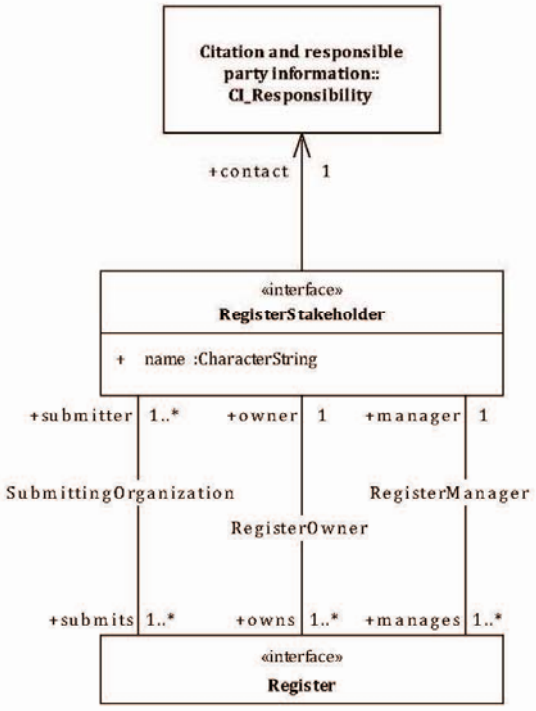

Figure 5 — RegisterStakeholder

7.3.2 Object Type: RegisterStakeholder

RegisterStakeholder	
Definition: The class RegisterStakeholder specifies information about the register stakeholder, which is either a manager, owner, or submitter. A stakeholder can serve one or more roles. NOTE This part of ISO 19135 does not require that a register stakeholder name be unique, since a stakeholder will, in general, have a name before undertaking a role in connection with a register.	
Supertype of: RE_RegisterStakeholder	
Type: Object Type	
Attribute:	
Name:	Name
Definition:	The attribute "name" shall be represented as a CharacterString containing a compact and human-readable designator that is used to denote the stakeholder of that register. EXAMPLE "ISO/TC 211," "Digital Geographic Information Working Group," and "International Hydrographic Bureau".
Multiplicity:	1
Value type:	CharacterString
Association role:	
Name:	manages

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Definition:	The role "manages" identifies the register stakeholder as the manager of the register.
Multiplicity:	1..*
Value type:	Register (feature type)
Association role:	
Name:	owns
Definition:	The role name "owns" identifies the register stakeholder as the owner of the register.
Multiplicity:	1..*
Value type:	Register (feature type)
Association role:	
Name:	submits
Definition:	The role name "submits" identifies the register stakeholder as the submitter of information to the register.
Multiplicity:	1..*
Value type:	Register (feature type)
Association role:	
Name:	contact
Definition:	The role name "contact" identifies the responsible party information for the register stakeholder.
Multiplicity:	1
Value type:	CI_Responsibility (feature type)

7.4 ItemClass

7.4.1 ItemClass schema

The model elements for the schema are shown in Figure 6.

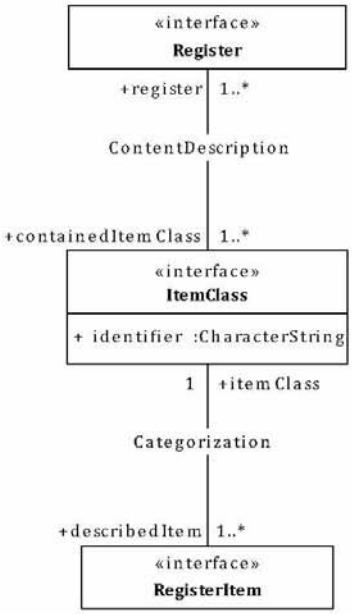

Figure 6 — ItemClass

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7.4.2 Object Type: ItemClass

ItemClass	
Definition:	
The class "ItemClass" is a description of a class of geographic information items specified in a technical standard.	
Supertype of:	
RE_ItemClass	
Type:	
Object Type	
Attribute:	
Name:	identifier
Definition:	The attribute "identifier" is represented as a CharacterString containing a compact and human-readable designator that is used to denote a class of item. The "identifier" that designates an item class held in a register that conforms to this part of ISO 19135 shall uniquely denote the item class within the context of the register.
Multiplicity:	1
Value type:	CharacterString
Association role:	
Name:	register
Definition:	The role "register" connects an instance of an item class to a register.
Multiplicity:	1..*
Value type:	Register (feature type)
Association role:	
Name:	describedItem
Definition:	The role "describedItem" connects an item class to one or more register items.
Multiplicity:	1..*
Value type:	RegisterItem (feature type)

Requirement 25. The attribute *identifier* that designates an item class held in a register that conforms to this part of ISO 19135 shall uniquely denote the item class within the context of the register.

7.5 RegisterItem

7.5.1 RegisterItem schema

The model elements for the schema are shown in Figure 7.

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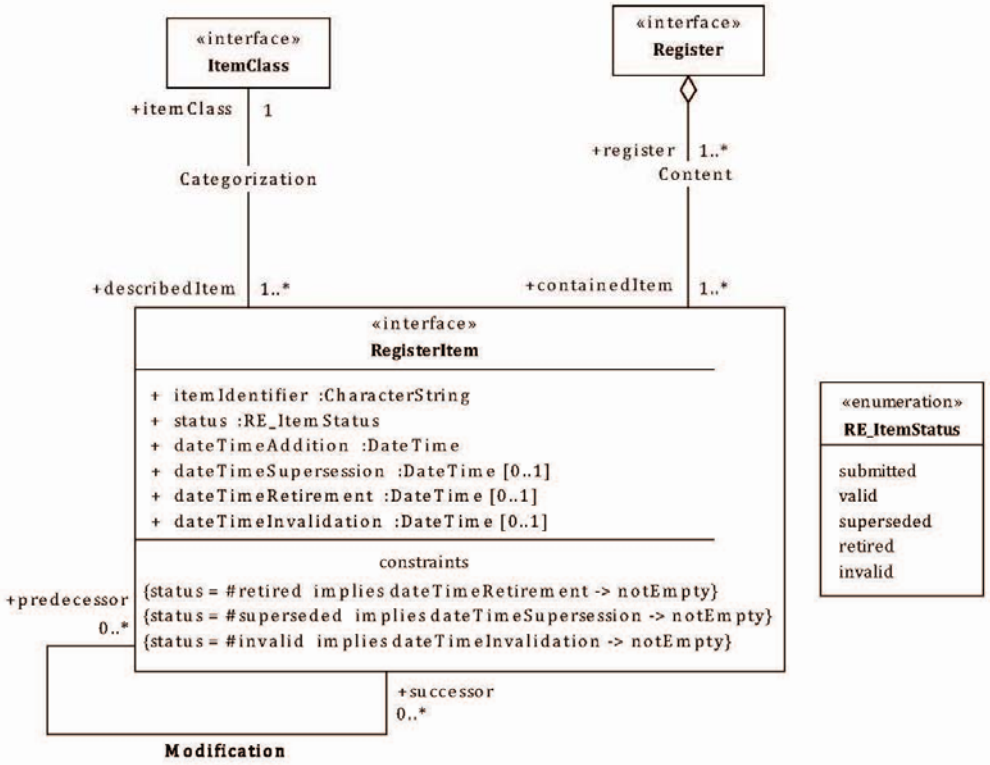

Figure 7 — RegisterItem

7.5.2 Object Type: RegisterItem

RegisterItem	
Definition: The class "RegisterItem" specifies elements of information to be recorded for each item held in a register. The technical standard that specified an item class may specify additional elements to be recorded.	
Supertype of: RE_RegisterItem SubregisterDescription	
Type: Object Type	
Attribute:	
Name:	itemIdentifier
Definition:	The attribute "itemIdentifier" is represented as a CharacterString that is used to uniquely denote that item within an item class and is intended for information processing. Once a value has been assigned, it shall not be reused. The class/identifier union shall be unique within the register. NOTE When a register contains items from different item classes, each item will be uniquely identifiable by the item identifier alone.
Multiplicity:	1

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Value type:	CharacterString	
Attribute:		
Name:	status	
Definition:	The attribute "status" is represented as an instance of RE_ItemStatus that identifies the registration status of the RegisterItem.	
Multiplicity:	1	
Value type:	RE_ItemStatus (enumeration)	
Values:	submitted	The item has been entered into the register, but the control body has not accepted the proposal to add it.
	valid	The item has been accepted, is recommended for use, and has not been superseded or retired.
	superseded	The item has been superseded by another item and is no longer recommended for use.
	retired	A decision has been made that the item is no longer recommended for use. It has not been superseded by another item.
	invalid	A decision has been made that a previously valid register item contains a substantial error and is invalid and will normally have been replaced by a corrected item.
Attribute:		
Name:	dateTimeAddition	
Definition:	The attribute "dateTimeAddition" specifies the date on which the item was added.	
Multiplicity:	1	
Value type:	DateTime	
Attribute:		
Name:	dateTimeSupersession	
Definition:	The attribute "dateTimeSupersession" specifies the date and time on which an item has been superseded.	
Multiplicity:	0..1	
Value type:	DateTime	
Attribute:		
Name:	dateTimeRetirement	
Definition:	The attribute "dateTimeRetirement" specifies the date and time on which an item has been retired.	
Multiplicity:	0..1	
Value type:	DateTime	
Attribute:		
Name:	dateTimeInvalidation	
Definition:	The attribute "dateTimeInvalidation" specifies the date and time on which an item has been invalidated.	
Multiplicity:	0..1	
Value type:	DateTime	
Association role:		
Name:	itemClass	
Definition:	The role "itemClass" connects an instance of a "RegisterItem" to an "ItemClass".	
Multiplicity:	1	
Value type:	ItemClass (feature type)	

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Association role:	
Name:	register
Definition:	The role register connects an instance of a register item class to a register.
Multiplicity:	1..*
Value type:	Register (feature type)
Association role:	
Name:	predecessor
Definition:	The role "predecessor" describes a previous concept of the "RegisterItem".
Multiplicity:	0..*
Value type:	RegisterItem (feature type)
Association role:	
Name:	successor
Definition:	The role "successor" describes a later concept of the "RegisterItem".
Multiplicity:	0..*
Value type:	RegisterItem (feature type)

Requirement 26. The attribute "itemIdentifier" is represented as a CharacterString that is used to uniquely denote that item within an item class and is intended for information processing. Once a value has been assigned, it shall not be reused. The class/identifier union shall be unique within the register.

8 Hierarchical registers

8.1 General

A hierarchical register is a structured set of registers composed of a principal register and one or more subregisters. A hierarchical register is associated with a partitioned domain of geographic information (see Figure 8). Depending upon the criteria used to partition a domain, the subdivisions may, but need not be, mutually exclusive. Identical items may occur in more than one partition, although most items in each should be unique.

The principal register may be a multi-part register or it may be one part of a multi-part register. The principal register contains a set of items that describe the subregisters. Each of the subregisters contains a set of register items from a partition of the information domain.

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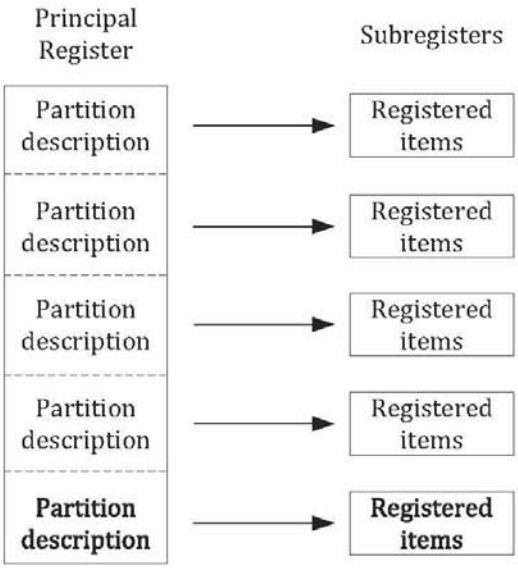

Figure 8 — Hierarchical register

EXAMPLE The register for ISO 6523 is an example of a hierarchical register. This hierarchical register consists of a principal register of organization identifier schemes, with a subregister for each scheme that contains organization identifiers that comply with that scheme. The registers for the individual organization identifier schemes are managed by "issuing organizations" that need not be ISO designated registration authorities. An ISO/TC 211 register of feature catalogues would be established as a hierarchical register in which each feature catalogue is established as a subregister owned by the organization that produces that catalogue.

8.2 Management of hierarchical registers

Requirement 27. The register owner shall coordinate the establishment of subregisters by other organizations.

8.3 Extensions to the register schema

The schema specified in 8.4 describes the additional information needed for hierarchical registers. The schema imports the core register schema and consists of a single package comprised of 1 class, SubregisterDescription.

Requirement 28. A hierarchical register shall conform to the subdescription schema specified in UML in 8.4.

Requirement 29. The "identifier" of a subregister shall uniquely identify that subregister within the set of all registers in the hierarchy.

8.4 SubregisterDescription

8.4.1 SubregisterDescription schema

The model elements for the schema are shown in Figure 9.

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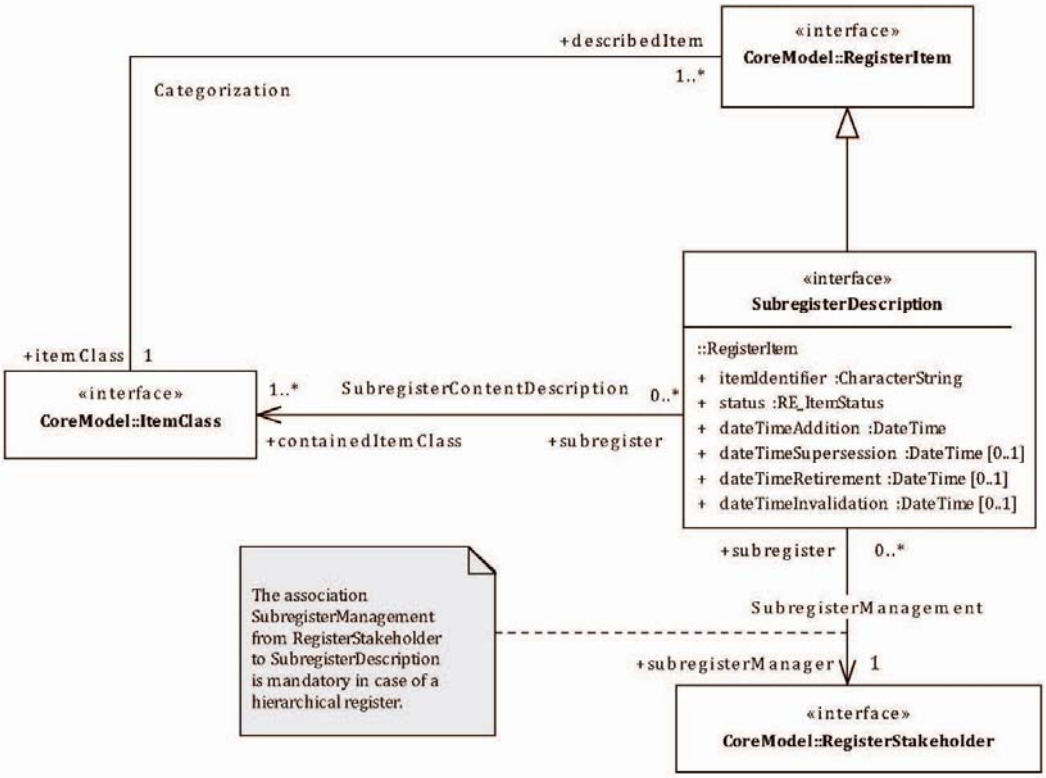

Figure 9 — SubregisterDescription

8.4.2 Object Type: SubregisterDescription

SubregisterDescription	
Definition:	
"SubregisterDescription" is a subclass of "RegisterItem" that shall be used in the principal register of a hierarchical register to describe each of the affiliated subregisters. Their semantics are unchanged, but a few are subject to additional constraints or conditions specified.	
NOTE Because a subregister is a type of register, it contains an instance of "Register" that describes itself. "SubregisterDescription" carries similar information about the subregister, but it is contained within the principal register.	
Subtype of:	
RegisterItem	
Supertype of:	
RE_SubregisterDescription	
Type:	
Object Type	
Association role:	
Name:	subregisterManager
Definition:	The role "subregisterManager" identifies the register stakeholder as the manager of the subregister.

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Multiplicity:	1
Value type:	RegisterStakeholder (feature type)
Association role:	
Name:	containedItemClass
Definition:	The role "containedItemClass" describes that the "ItemClass" for the association "SubregisterContentDescription" contains the item classes in the subregister.
Multiplicity:	1..*
Value type:	ItemClass (feature type)

Requirement 30. "SubregisterDescription" is a subclass of "RegisterItem" that shall be used in the principal register of a hierarchical register to describe each of the affiliated subregisters.

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Annex A
(normative)

Abstract test suite

A.1 Core conformance class

A.1.1 Register responsibilities

a) Test Purpose: Verify that the register has a management system which addresses all requirements.

b) Test Method: Request information about the register from the register. Verify that required information is included.

c) Reference: Clause 5, Requirements 1 – 12

d) Test Type: Capability.

A.1.2 Management procedures

a) Test Purpose: Verify that the register is managed according to the rules specified in this part of ISO 19135.

b) Test Method: Check the procedures described in the information package distributed by the register manager.

c) Reference: Clause 6, Requirements 13 – 23

d) Test Type: Capability.

A.1.3 Publication of register contents

a) Test Purpose: Verify that the contents of the register are publicly available.

b) Test Method: Check the information package distributed by the register manager. Visit the website or electronically processable form and inspect the information made available.

c) Reference: Clause 5, Requirement 12

d) Test Type: Capability.

A.1.4 Register Content

a) Test Purpose: Verify that the items in the register contain the minimum specified content.

b) Test Method: Inspect each of a sample of entries in the register to ensure that they include all elements of information required by this part of ISO 19135 and the technical standard that specifies the corresponding item class.

c) Reference: Clause 7, Requirements 24 – 26

d) Test Type: Capability.

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A.2 Extended conformance class

A.2.1 Register Content — Extended

a) Test Purpose: Verify that the items in the register contain the minimum specified content.

b) Test Method: Inspect each of a sample of entries in the register to ensure that they include all elements of information required by this part of ISO 19135 and the technical standard that specifies the corresponding item class.

c) Reference: Annex B, Requirements 30 – 35

d) Test Type: Capability.

A.3 Hierarchical registers

A.3.1 Hierarchical registers — Principal register

a) Test Purpose: Verify that the principal register provides required information about subregisters.

b) Test Method: Access the principal register and check that the class SubregisterDescription is implemented.

c) Reference: Clause 8, Requirements 27 – 28

d) Test Type: Capability.

A.3.2 Hierarchical registers — Subregister

a) Test Purpose: Verify that the subregister conforms to the description provided by the principal register.

b) Test Method: Access the instance of RE_Register that describes the register itself and compare the information it holds to that held by the instance of RE_SubregisterDescription that describes this subregister in the principal register.

c) Reference: Clause 8, Requirements 29 – 30

d) Test type: Capability

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Annex B
(normative)

UML model for the extended conformance class

B.1 General

The model elements for the extended conformance class are shown in Figure B.1. The elements of the extended model are subtypes of those defined at the core conformance class. The classes for the core conformance class are described in Clause 7 and are not repeated here.

Requirement 31.	The extended register shall conform to the register schema as specified in UML in B.2.

B.2 Extended model elements – feature types and associations

B.2.1 General

In Figure B.1, all the schema elements that belong to the extended conformance class are within the boundary boxes labelled "Extended conformance class".

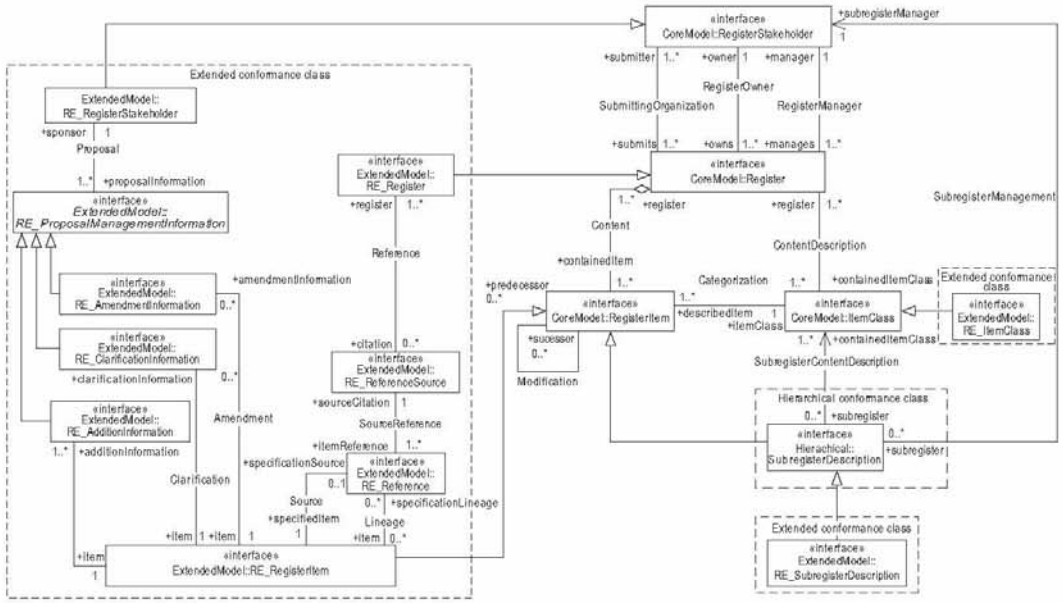

Figure B.1 — Core model with extension

B.2.2 RE_Register

B.2.2.1 RE_Register schema

The model elements for the schema are shown in Figure B.2.

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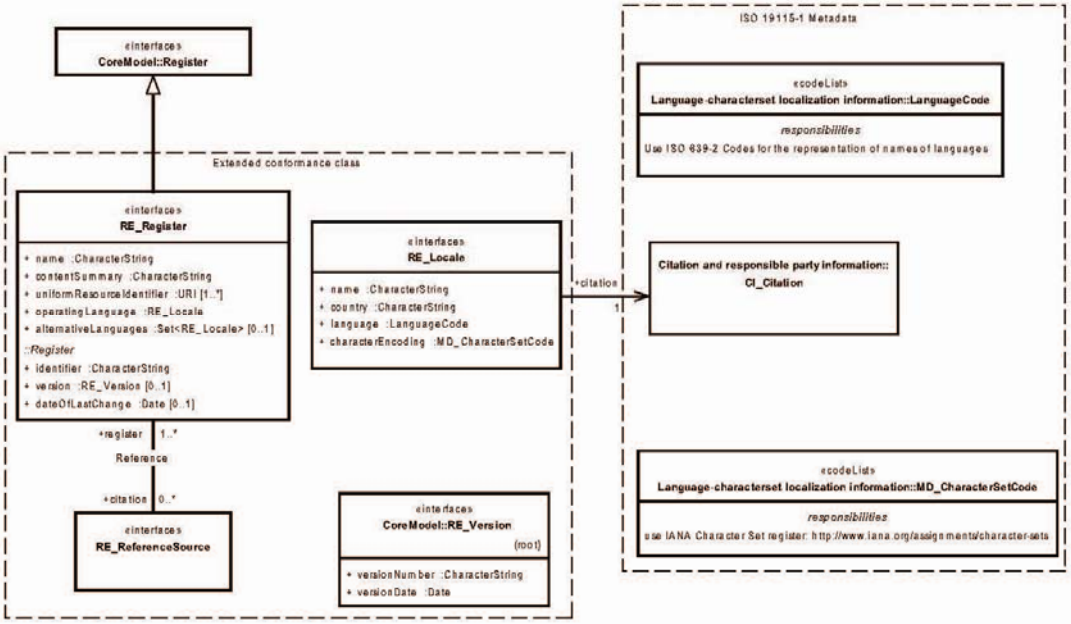

Figure B.2 — RE_Register

B.2.2.2 Object Type: RE_Register

RE_Register	
Definition: The class "RE_Register" specifies information about the register itself. It is a subtype of the Register class in the core profile.	
Subtype of: Register	
Type: Object Type	
Attribute:	
Name:	name
Definition:	The attribute "name" is represented as a CharacterString containing a compact and human-readable designator that is used to uniquely denote that register within the set of registers maintained by the register owner. EXAMPLE 1 "ISO/TC 211 Register of Feature Data Dictionaries and Feature Catalogues" might be the name of the principal register of a hierarchical register. "DGIWG FACC Data Dictionary" and "IHO S-57 Object Dictionary" might be the names of subregisters within the hierarchy.
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	contentSummary

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Definition:	The attribute "contentSummary" is represented as a CharacterString containing a general statement of the purpose for which items in the register are made available to potential users. It should also specify any limits to the scope of the register and identify the types of applications for which the items are intended. NOTE The scope of a register could be limited by theme, by region, by language or other criteria. EXAMPLE 2 The scope of a terminology register could be limited to Spanish terms used to describe landforms in Latin America.
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	uniformResourceIdentifier
Definition:	The attribute "uniformResourceIdentifier" takes as its value a set of URI's, each referencing information about online resources associated with the register. EXAMPLE 3 http://www.digest.org/Navigate2.htm is an example value of *OnLineResource.linkage*.
Multiplicity:	1..*
Value type:	URI
Attribute:	
Name:	operatingLanguage
Definition:	The attribute "operatingLanguage" is represented as an instance of class RE_Locale that is used to specify language, country information and character encoding for the proper interpretation of the content of character strings in the register. The values of all character strings in the register shall be in accordance with the value of "operatingLanguage", unless otherwise stated.
Multiplicity:	1
Value type:	RE_Locale
Attribute:	
Name:	alternativeLanguages
Definition:	The attribute "alternativeLanguages" supports cultural and linguistic adaptability, individual items in a register may provide elements of information in additional languages other than the operating language of the register. The attribute "alternativeLanguages" shall be represented as a set of instances of RE_Locale, each specifying an additional unique locale used by items in the register. Every member of the set shall be used by at least one item in the register. The *locale* of every "alternativeExpression" used by any item in the register shall be included in this set of "RE_Locales". This attribute provides a summary of alternative locales used by items in a register. Register owners shall specify and publish their policy as to whether all or only some of the items in a register shall have alternative expressions.
Multiplicity:	0..1
Value type:	Set
Association role:	
Name:	citation
Definition:	The role "citation" identifies reference source for one or more items in the RE_Register.
Multiplicity:	0..*
Value type:	RE_ReferenceSource (feature type)

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B.2.2.3 Object Type: RE_Locale

RE_Locale	
Definition:	
The class "RE_Locale" provides information about languages used in a register.	
Type:	
Object Type	
Attribute:	
Name:	name
Definition:	The attribute "name" is represented as a CharacterString that describes the locale. EXAMPLE 1 "Welsh"
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	country
Definition:	The attribute "country" is represented as a CharacterString that holds a 3-character numerical country code as specified in ISO 3166-1. NOTE The list of codes is available at https://www.iso.org/obp/ui/#search. Maintenance Agency at http://www.iso.org/iso/maintenance_agencies.html
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	language
Definition:	The attribute "language" takes as its value a 3-character language code as specified in ISO 639-2.
Multiplicity:	1
Value type:	LanguageCode (code list)
Attribute:	
Name:	characterEncoding
Definition:	The attribute "characterEncoding" is represented as an instance of MD_CharacterSetCode that specifies the name of the character coding standard used.
Multiplicity:	1
Value type:	MD_CharacterSetCode (code list)
Association role:	
Name:	expression
Definition:	The role "expression" identifies the class RE_AlternativeExpression for language information as specified in RE_Locale.
Multiplicity:	0..*
Value type:	RE_AlternativeExpression (feature type)
Association role:	
Name:	citation

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Definition:	The role "citation" is represented as an instance of CI_Citation [ISO 19115-1] that provides more information about the locale. EXAMPLE 2 An instance of CI_Citation could provide information about a specific dialect of the language identified for the locale or about some other culturally significant aspect of information presentation, such as a specific method of formatting numbers.
Multiplicity:	1
Value type:	CI_Citation (feature type)

B.2.2.4 Object Type: RE_Version

RE_Version	
Definition:	
A class that uniquely defines a version.	
Type:	
Object Type	
Attribute:	
Name:	versionNumber
Definition:	The attribute "versionNumber" is represented as a constrained CharacterString that denotes the version. The CharacterString shall be of the form <first positive integer> <dot> <second positive integer> <letter characters> ("#.#a"), where: <first positive integer> (one or more digits) shall specify the major version designation; <dot> (".") shall delimit the <first positive integer> from the <second positive integer> when there is a <second positive integer>; <second positive integer> (one or more digits) shall optionally specify the minor sub-version designation; and <letters> (one or more characters) shall optionally specify the minor sub-version designation. EXAMPLE 1 "2.1a".
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	versionDate
Definition:	The attribute "versionDate" is represented as an instance of the class < Date > [ISO 19103] that specifies the date (which may be of reduced precision) of the version. EXAMPLE 2 2002–10–21.
Multiplicity:	1
Value type:	Date

Requirement 32. The attribute "versionNumber" is represented as a constrained CharacterString that denotes the version. The CharacterString shall be of the form <first positive integer> <dot> <second positive integer> <letter characters> ("#.#a"), where:
<first positive integer> (one or more digits) shall specify the major version designation;
<dot> (".") shall delimit the <first positive integer> from the <second positive integer> when there is a <second positive integer>;
<second positive integer> (one or more digits) shall optionally specify the minor sub-version designation; and
<letters> (one or more characters) shall optionally specify the minor subversion designation.

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B.2.3 RE_RegisterItem

B.2.3.1 RE_RegisterItem schema

The model elements for the schema are shown in Figure B.3.

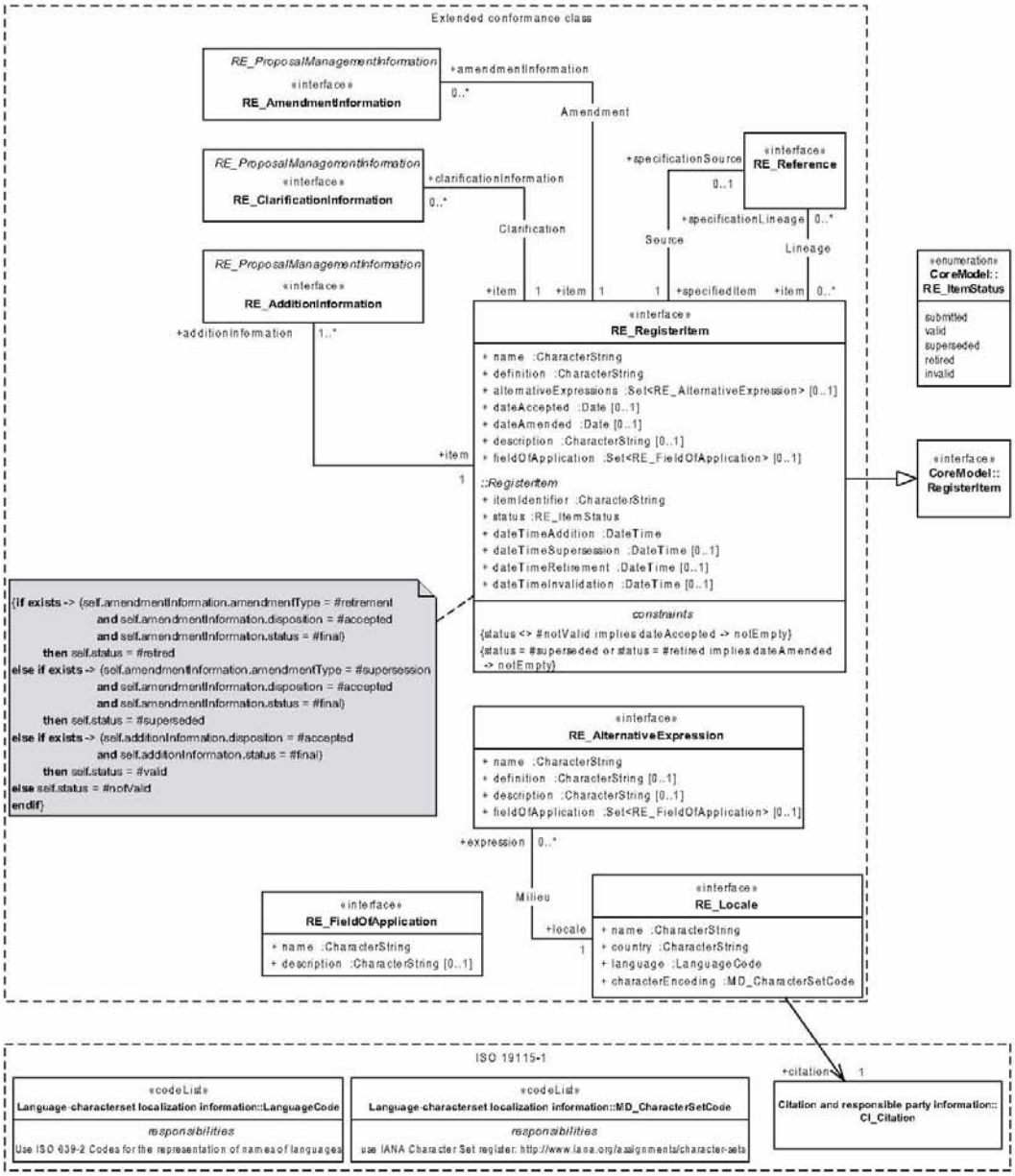

Figure B.3 — RE_RegisterItem

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B.2.3.2 Object Type: RE_RegisterItem

RE_RegisterItem	
Definition:	
The class "RE_RegisterItem" specifies elements of information to be recorded for each item held in a register. The technical standard that specified an item class may specify additional elements to be recorded.	
Subtype of:	
RegisterItem	
Type:	
Object Type	
Attribute:	
Name:	name
Definition:	The attribute "name" is represented as a CharacterString containing a compact and human-readable designator that is used to denote a register concept. Each "name" shall: — denote an item concept in the scope of an item class; and — be a succinct expression of the item concept it denotes. EXAMPLE 1 "Lift" and "buoy shape". The "name" shall be unique within a register according to the following rules: — Multiple items of the same item class may use the same value for "name" but only one such item may have a status of "valid". — Items in different item classes may use the same value for name. The "name" may be used to support searches for items of interest to a human user of the register.
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	definition
Definition:	The attribute "definition" shall be represented as a CharacterString containing the definition of the concept embodied by that item and expressed in the operating language of the register. The "definition" shall be a precise statement of the nature, properties, scope or essential qualities of the concept as realized by the item. If a definition is taken from an external source, RE_Reference shall be used to provide information about that source together with the unique identifier of the item in the external source where available. EXAMPLE 2 "Equipment consisting of a platform, which is often enclosed, that is raised and lowered in a vertical shaft to transport humans, equipment or materials; a lift or (U.S.) elevator" and "The shape of a buoy".
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	alternativeExpressions
Definition:	The attribute "alternativeExpressions" is represented as a set of instances of RE_AlternativeExpression, each specifying an alternative name and optionally additional information in a locale different from that of the register. No two instances of RE_AlternativeExpression within the set shall have the same value for *locale*.
Multiplicity:	0..1
Value type:	Set
Attribute:	

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Name:	dateAccepted
Definition:	The conditional attribute "dateAccepted" specifies the date on which a proposal to add the item to the register was accepted. DateAccepted = self.additionInformation.dateDisposed
Multiplicity:	0..1
Value type:	Date
Attribute:	
Name:	dateAmended
Definition:	The conditional attribute "dateAmended" specifies the date on which a proposal to supersede or retire the item was accepted. DataAmended = self.amendmentInformation.dateDisposed
Multiplicity:	0..1
Value type:	Date
Attribute:	
Name:	description
Definition:	The attribute "description" is represented as a CharacterString containing a description of the concept embodied by that item and expressed in the operating language of the register. The "description" contains a statement of the nature, properties, scope, or non-essential qualities of the concept that are realized by the item but are not specified by the "definition" element. EXAMPLE 3 "A lift may be moved through a system of overhead cables, lateral traction or under-floor hydraulics." EXAMPLE 4 "Buoy shape is generally based on the portion visible above the water line."
Multiplicity:	0..1
Value type:	CharacterString
Attribute:	
Name:	fieldOfApplication
Definition:	The attribute "fieldOfApplication" is represented as a set of instances of RE_FieldOfApplication, each of which shall describe a kind of use of the item. The fieldOfApplication may be used as the basis for creating metadata for submission to search engines. EXAMPLE 5 "Agricultural Production" and "Marine Navigation".
Multiplicity:	0..1
Value type:	Set
Association role:	
Name:	additionInformation
Definition:	The role "additionInformation" identifies the class RE_AdditionInformation for additional information about the registerItem.
Multiplicity:	1..*
Value type:	RE_AdditionInformation (feature type)
Association role:	
Name:	amendmentInformation
Definition:	The role "amendmentInformation" identifies that amendment information to the register item may be available in the RE_AmendmentInformation class.
Multiplicity:	0..*
Value type:	RE_AmendmentInformation (feature type)
Association role:	

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Name:	clarificationInformation
Definition:	The role "clarificationInformation " identifies the class RE_ClarificationInformation for clarifying information about the registerItem.
Multiplicity:	0..*
Value type:	RE_ClarificationInformation (feature type)
Association role:	
Name:	specificationLineage
Definition:	The role "specificationLineage" identifies the information in RE_Reference as lineage information for the register item.
Multiplicity:	0..*
Value type:	RE_Reference (feature type)
Association role:	
Name:	specificationSource
Definition:	The role "specificationSource" identifies the reference information as the specification source for the register item.
Multiplicity:	0..1
Value type:	RE_Reference (feature type)

Requirement 33. Each "name" for the RE_RegisterItem shall a) denote an item concept in the scope of an item class and b) be a succinct expression of the item concept it denotes.

Requirement 34. The "name" for the RE_RegisterItem shall be unique within a register according to the following rules: a) Multiple items of the same item class may use the same value for "name" but only one such item may have a status of "valid"; b) Items in different item classes may use the same value for name; c) The "name" may be used to support searches for items of interest to a human user of the register.

Requirement 35. No two instances of RE_AlternativeExpression within the set shall have the same value for "locale".

B.2.3.3 Object Type: RE_AlternativeExpression

RE_AlternativeExpression	
Definition:	
The class RE_AlternativeExpression is a data type used to provide information about a register item in an alternative language. Subclasses of RE_AlternativeExpression may be specified in order to add additional attributes appropriate for particular item classes.	
EXAMPLE A specification for a metadata element register could identify a subclass of RE_AlternativeExpression that would include the data dictionary fields specified in ISO 19115-1 (obligation/condition, data type, and domain) as additional attributes.	
Type:	
Object Type	
Attribute:	
Name:	name
Definition:	The attribute "name" is represented as a CharacterString whose content meets the requirements of RE_RegisterItem.name except that the applicable locale is that specified in RE_AlternativeExpression.locale.
Multiplicity:	1
Value type:	CharacterString

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Attribute:	
Name:	definition
Definition:	The attribute "definition" is represented as a CharacterString whose content meets the requirements of RE_RegisterItem.definition except that the applicable locale is that specified in RE_AlternativeExpression.locale.
Multiplicity:	0..1
Value type:	CharacterString
Attribute:	
Name:	description
Definition:	The attribute description is represented as a CharacterString whose content meets the requirements of RE_RegisterItem.description except that the applicable locale is that specified in RE_AlternativeExpression.locale.
Multiplicity:	0..1
Value type:	CharacterString
Attribute:	
Name:	fieldOfApplication
Definition:	The attribute fieldOfApplication is represented as a set of instances of RE_FieldOfApplication whose content meets the requirements of RE_RegisterItem.fieldOfApplication except that the applicable locale is that specified in RE_AlternativeExpression.locale.
Multiplicity:	0..1
Value type:	Set
Association role:	
Name:	locale
Definition:	The role "locale" identifies the class RE_Locale for further information about the language used for the alternative expression.
Multiplicity:	1
Value type:	RE_Locale (feature type)

B.2.3.4 Object Type: RE_FieldOfApplication

RE_FieldOfApplication	
Definition:	
The class RE_FieldOfApplication is a data type used to provide information about a use for a register item.	
Type:	
Object Type	
Attribute:	
Name:	name
Definition:	The attribute "name" is represented as CharacterString used to identify the field of application. EXAMPLE 1 "Agricultural Production", "Marine Navigation"
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	description

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Definition:	The attribute description provides as a CharacterString a description of the field of application. EXAMPLE 2 "Pertaining to the science, art, and business of cultivating soil, producing crops, and raising livestock." EXAMPLE 3 "Pertaining to the science or art of conducting ships or vessels from one place to another at sea."
Multiplicity:	0..1
Value type:	CharacterString

B.2.3.5 Object Type: RE_Locale

See B.2.2.3.

B.2.4 RE_ItemClass

B.2.4.1 RE_ItemClass schema

The model elements for the schema are shown in Figure B.4.

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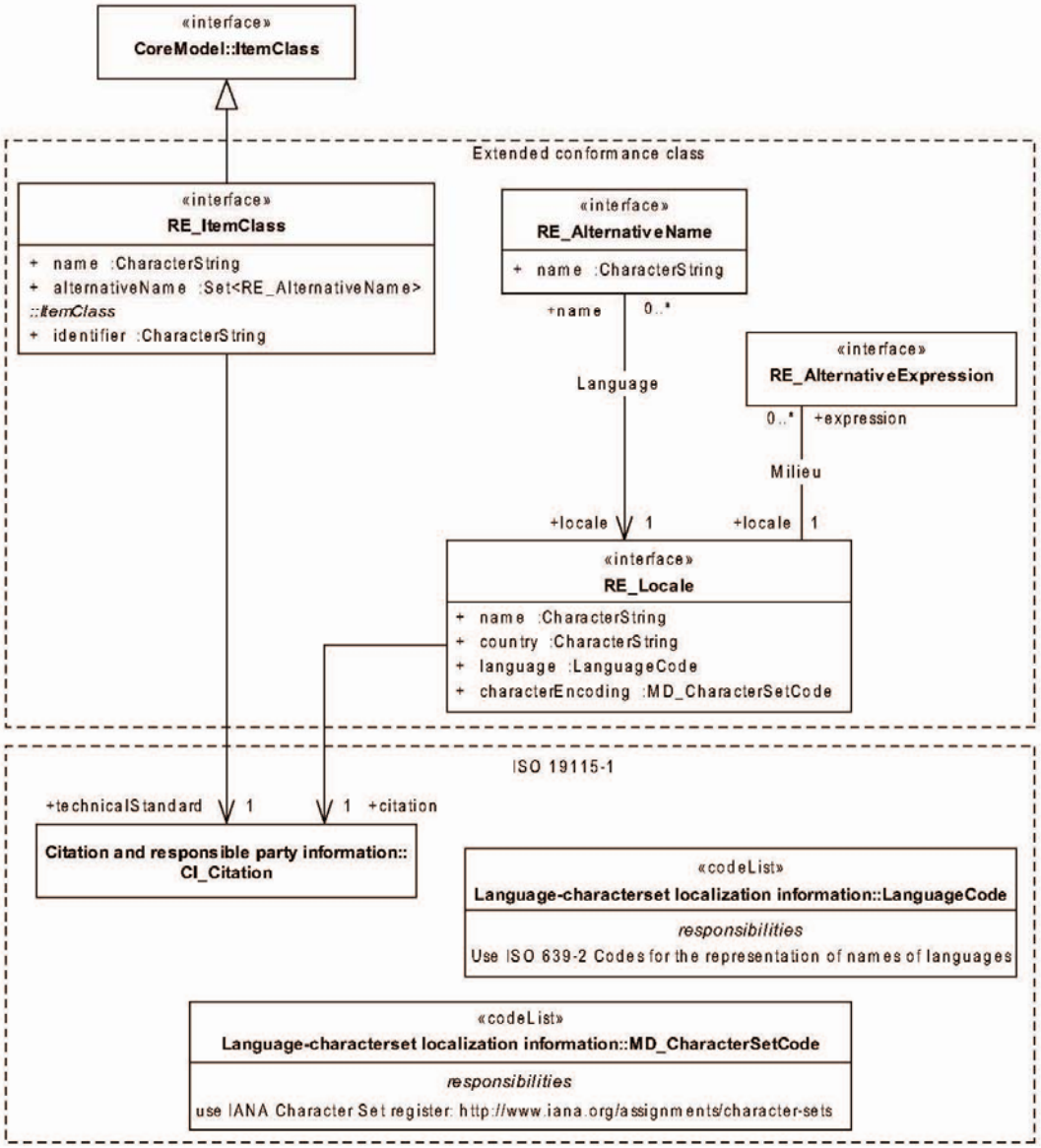

Figure B.4 — RE_ItemClass

B.2.4.2 Object Type: RE_ItemClass

RE_ItemClass
Definition: RE_ItemClass is a description of a class of geographic information items specified in a technical standard.
Subtype of: ItemClass

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Type:	
Object Type	
Attribute:	
Name:	name
Definition:	The attribute "name" is represented as a CharacterString containing a compact and human-readable designator that is used to denote a class of item. The "name" that designates an item class held in a register that conforms to this part of ISO 19135 shall: a) uniquely denote the item class within the context of the register; and b) be based on the item class designation used in the applicable technical standard.
Multiplicity:	1
Value type:	CharacterString
Attribute:	
Name:	alternativeName
Definition:	The attribute "alternativeName" contains a set of instances of RE_AlternativeName, each of which is a translation of the "name" of the RE_ItemClass into a language other than the "operatingLanguage" of the RE_Register.
Multiplicity:	1
Value type:	Set
Association role:	
Name:	technicalStandard
Definition:	The role "technicalStandard" shall be represented as an instance of CI_Citation [ISO 19115-1] that specifies the technical standard (and the specific portion thereof) to which items in the item class shall conform.
Multiplicity:	1
Value type:	CI_Citation (feature type)

Requirement 36. The "name" that designates an item class held in a register that conforms to this part of ISO 19135 shall: a) uniquely denote the item class within the context of the register; and b) be based on the item class designation used in the applicable technical standard.

B.2.4.3 Object Type: RE_AlternativeName

RE_AlternativeName	
Definition:	
The class RE_AlternativeName is a data type used to provide the name of an item class in an alternative language.	
Type:	
Object Type	
Attribute:	
Name:	name
Definition	The attribute "name" is represented as a CharacterString that contains the name of an item class in an alternative language.
Multiplicity:	1
Value type:	CharacterString
Association role:	
Name:	locale

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Definition:	The role "locale" identifies the class RE_Locale for further information about the name used in RE_AlternativeName.
Multiplicity:	1
Value type:	RE_Locale (feature type)

B.2.4.4 Object Type: RE_AlternativeExpression

See B.2.3.3.

B.2.4.5 Object Type: RE_Locale

See B.2.2.3.

B.2.5 RE_ProposalManagementInformation

B.2.5.1 RE_ProposalManagement schema

The model elements for the schema are shown in Figure B.5.

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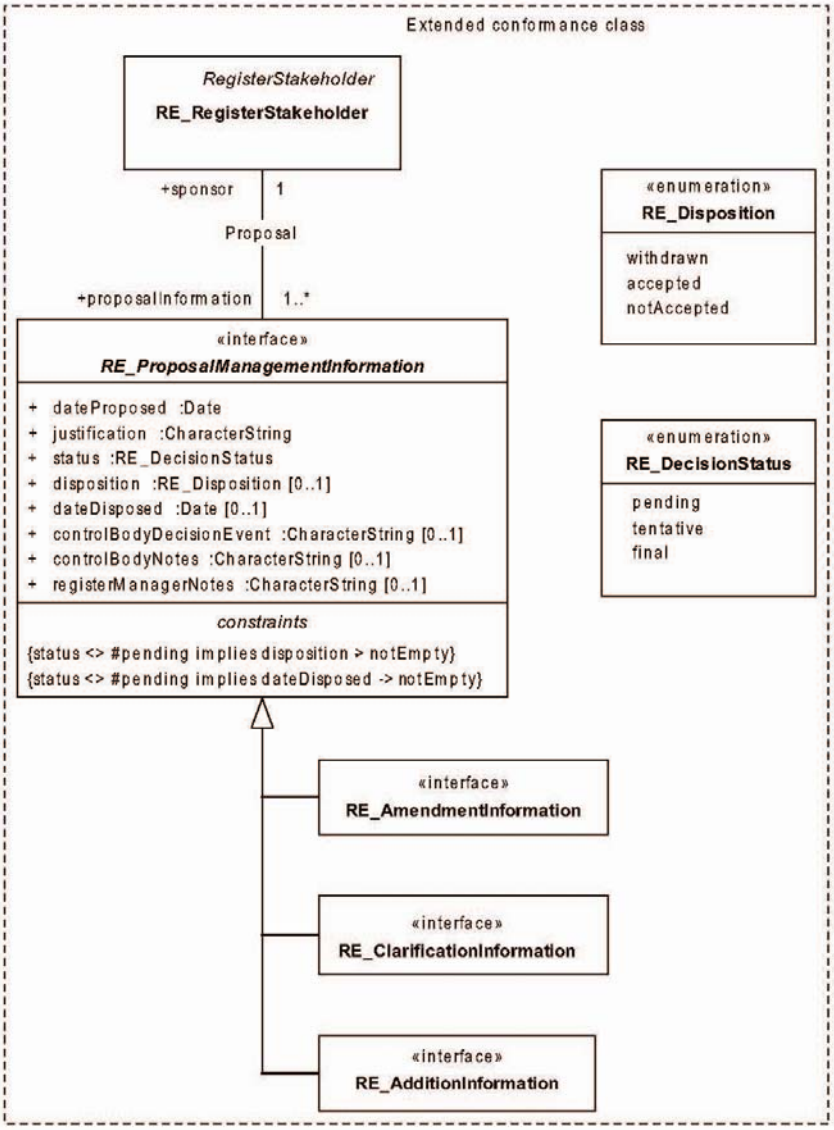

Figure B.5 — RE_ProposalManagementInformation

B.2.5.2 Object Type: RE_ProposalManagementInformation

RE_ProposalManagementInformation
Definition: The class RE_ProposalManagementInformation specifies elements of management information to be recorded for each proposal to add or modify a register item.
Description: This type is abstract.

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Supertype of:		
RE_AdditionInformation		
RE_AmendmentInformation		
RE_ClarificationInformation		
Type:		
Object Type		
Attribute:		
Name:	dateProposed	
Definition:	The attribute "dateProposed" is represented as an instance of the class <Date> [ISO 19103] and specifies the (full precision) date on which the item was entered into the register. EXAMPLE 2002–11–27.	
Multiplicity:	1	
Value type:	Date	
Attribute:		
Name:	justification	
Definition:	The attribute "justification" is represented as a CharacterString that explains why the proposed change should be implemented.	
Multiplicity:	1	
Value type:	CharacterString	
Attribute:		
Name:	status	
Definition:	The attribute "status" is represented as an instance of RE_DecisionStatus that identifies the standing of the proposed change within the approval process.	
Multiplicity:	1	
Value type:	RE_DecisionStatus (enumeration)	
Values:	pending	No decision has been made.
	tentative	A decision has been made, but it is still subject to appeal.
	final	A decision has been made and the time limit for appeal has run out or an appeal has been resolved.
Attribute:		
Name:	disposition	
Definition:	The conditional attribute "disposition" is represented as an instance of RE_Disposition that identifies the disposition of the proposal.	
Multiplicity:	0..1	
Value type:	RE_Disposition (enumeration)	
Values:	withdrawn	The submitting organization has withdrawn the proposal.
	accepted	The control body decided to accept the proposal.
	notAccepted	The control body decided not to accept the proposal.
Attribute:		
Name:	dateDisposed	
Definition:	The conditional attribute "dateDisposed" is represented as an instance of the class <Date> [ISO 19103] and specifies the (full precision) date on which the disposition of the proposal was determined.	
Multiplicity:	0..1	

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Value type:	Date
Attribute:	
Name:	controlBodyDecisionEvent
Definition:	The attribute "controlBodyDecisionEvent" is represented as a CharacterString that identifies a meeting or other event associated with the control body's decision concerning the proposed change.
Multiplicity:	0..1
Value type:	CharacterString
Attribute:	
Name:	controlBodyNotes
Definition:	The attribute "controlBodyNotes" is represented as a CharacterString containing notes relevant to the control body's decision concerning the proposal. Individual entries within the notes should be dated.
Multiplicity:	0..1
Value type:	CharacterString
Attribute:	
Name:	registerManagerNotes
Definition:	The attribute "registerManagerNotes" is represented as a CharacterString containing notes relevant to the register manager's handling of the proposal. Individual entries within the notes should be dated.
Multiplicity:	0..1
Value type:	CharacterString
Association role:	
Name:	sponsor
Definition:	The role "sponsor" identifies the class RE_RegisterStakeholder to be submitting proposal management information to the registry.
Multiplicity:	1
Value type:	RE_RegisterStakeholder (feature type)

B.2.6 RE_Reference and RE_ReferenceSource

B.2.6.1 RE_Reference and RE_ReferenceSource schema

The model elements for the schema are shown in Figure B.6.

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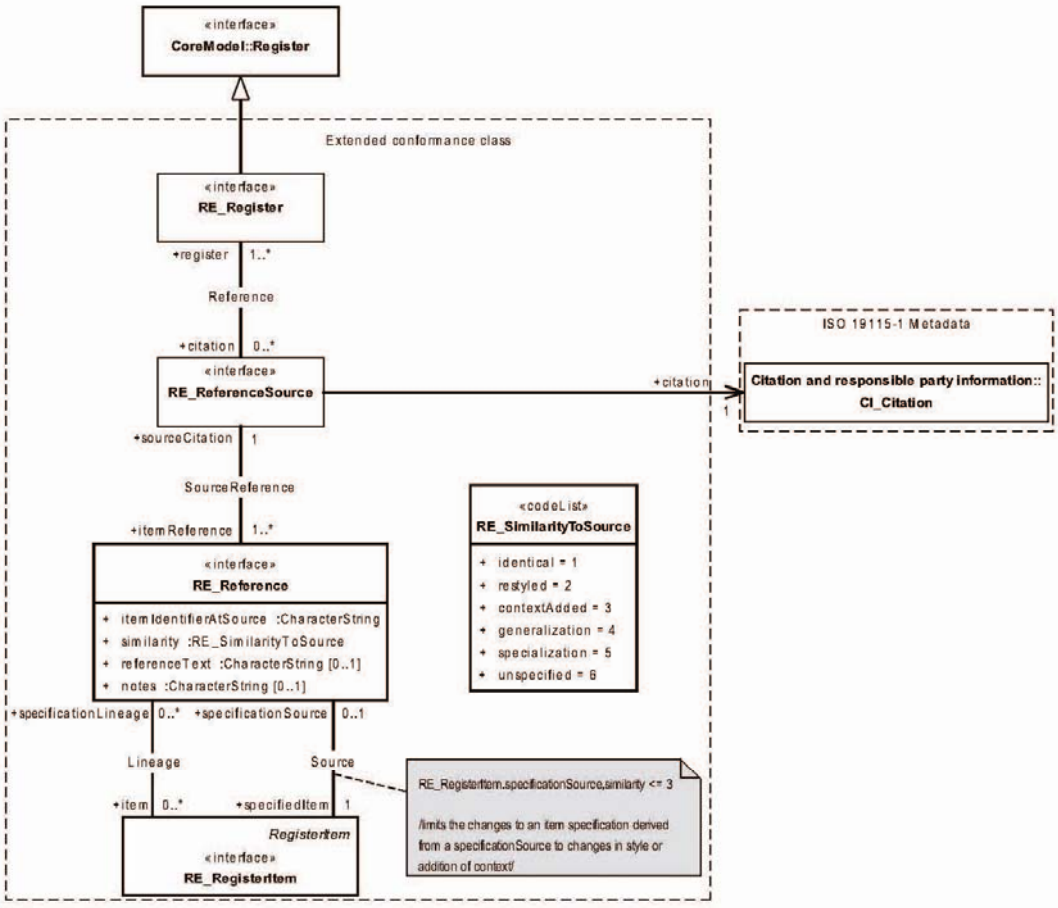

Figure B.6 — RE_Reference and RE_ReferenceSource

B.2.6.2 Object Type: RE_Reference

RE_Reference	
Definition:	
The class RE_Reference specifies information about the source and/or lineage of a specific RE_RegisterItem derived from an external document or register.	
Type:	
Object Type	
Attribute:	
Name:	itemIdentifierAtSource
Definition:	The attribute "itemIdentifierAtSource" is represented as a CharacterString that provides the value of the item identifier in the source document or register from which the specification of the RE_RegisterItem is derived.
Multiplicity:	1
Value type:	CharacterString
Attribute:	

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Name:	similarity	
Definition:	The attribute "similarity" uses a value from the codeList RE_SimilarityToSource that specifies the type of change that has been made to the item specification relative to the item specification in the external source.	
Multiplicity:	1	
Value type:	RE_SimilarityToSource (code list)	
Values:	1	No change has been made to the specification.
	2	The style of the specification has been changed to match the style and structure of other specifications in the register that has imported the specification.
	3	The specification includes information about its context that is not explicit in the specification in the external source.
	4	The specification of the register item has been generalized to have a broader meaning than the item specified in the external source.
	5	The specification of the register item has been specialized to have a narrower meaning than the item specified in the external source.
	6	The nature of the differences between the register item and the similar item in the external sources is unspecified.
Attribute:		
Name:	referenceText	
Definition:	The optional attribute "referenceText" is represented as a CharacterString that may be used to provide a copy of documentation about the item from the RE_ReferenceSource. NOTE This attribute is intended for use in cases where the RE_ReferenceSource may not be readily accessible to users of the register.	
Multiplicity:	0..1	
Value type:	CharacterString	
Attribute:		
Name:	notes	
Definition:	The optional attribute "notes" is represented as a CharacterString that may be used to provide additional information about the derivation of the specification of a register item from an external source.	
Multiplicity:	0..1	
Value type:	CharacterString	
Association role:		
Name:	sourceCitation	
Definition:	The role "sourceCitation" identifies that the information in the RE_ReferenceSource is the citation for the RE_Reference.	
Multiplicity:	1	
Value type:	RE_ReferenceSource (feature type)	
Association role:		
Name:	item	
Definition:	The role "item" identifies the information in RE_Reference for the register item.	
Multiplicity:	0..*	
Value type:	RE_RegisterItem (feature type)	
Association role:		
Name:	specifiedItem	
Definition:	The role "specifiedItem" describes that the RE_Reference for the association "source" is the reference source for specification of the register item.	

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Multiplicity:	1
Value type:	RE_RegisterItem (feature type)

B.2.6.3 Object Type: RE_ReferenceSource

RE_ReferenceSource	
Definition:	
The class RE_ReferenceSource specifies information about the source of RE_RegisterItem specifications taken from an external document or register.	
Type:	
Object Type	
Association role:	
Name:	itemReference
Definition:	The role "itemReference" describes that the information in the RE_ReferenceSource is the citation for one or more RE_References".
Multiplicity:	1..*
Value type:	RE_Reference (feature type)
Association role:	
Name:	citation
Definition:	information object containing information that directs a reader's or user's attention from one *resource* (4.17) to another, Source ISO 19115-1.
Multiplicity:	1
Value type:	CI_Citation (feature type)
Association role:	
Name:	register
Definition:	The role "register" describes that the register for the association Reference is the reference for one or more items in the register.
Multiplicity:	1..*
Value type:	RE_Register (feature type)

B.2.7 RE_AmendmentInformation, RE_ClarificationInformation, and RE_AdditionInformation

B.2.7.1 RE_AmendmentInformation, RE_ClarificationInformation, and RE_AdditionInformation schema

The model elements for the schema are shown in Figure B.7.

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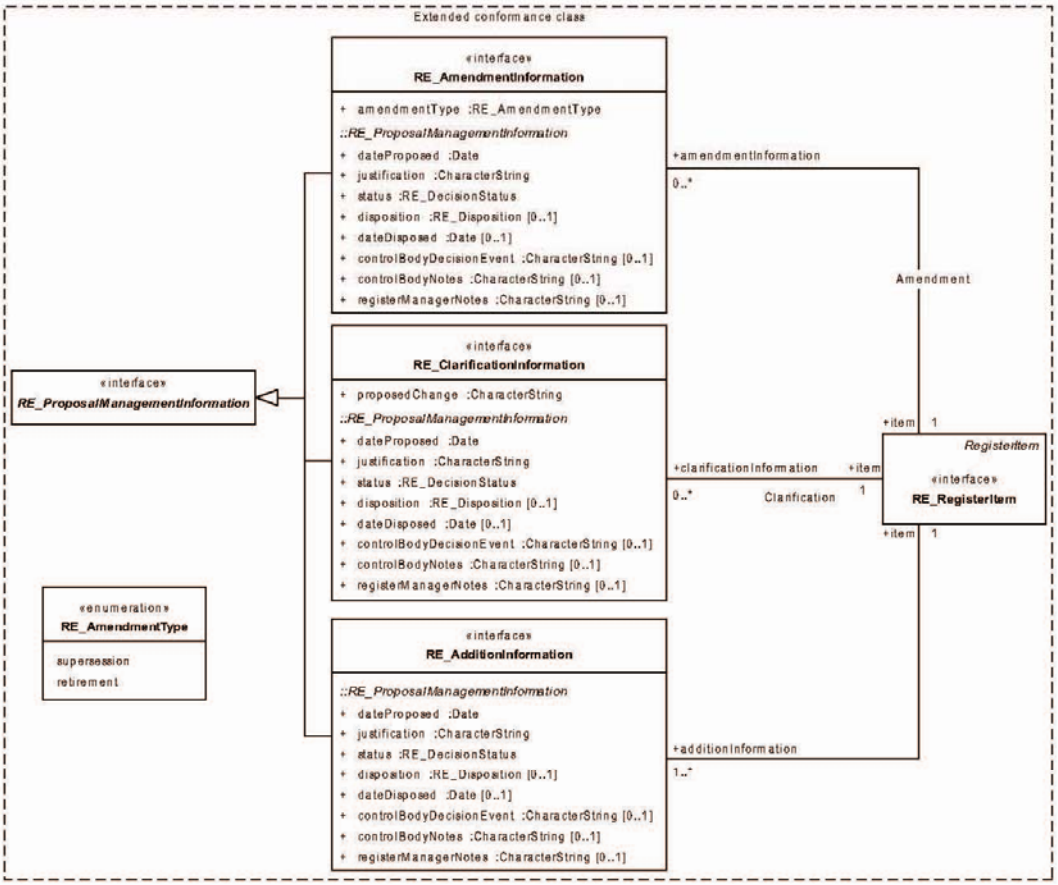

Figure B.7 — RE_AmendmentInformation, RE_ClarificationInformation, and RE_AdditionInformation

B.2.7.2 Object Type: RE_AdditionInformation

RE_AdditionInformation	
Definition:	
The subclass RE_AdditionInformation contains management information about a proposal to add an item to a register.	
Subtype of:	
RE_ProposalManagementInformation	
Type:	
Object Type	
Association role:	
Name:	item
Definition:	The role "item" identifies that the information in the class RE_AdditionInformation is related to a register item.
Multiplicity:	1

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Value type:	RE_RegisterItem (feature type)

B.2.7.3 Object Type: RE_AmendmentInformation

RE_AmendmentInformation		
Definition:		
The subclass RE_AmendmentInformation contains management information about a proposal to amend an item in a register.		
Subtype of:		
RE_ProposalManagementInformation		
Type:		
Object Type		
Attribute:		
Name:	amendmentType	
Definition:	The attribute "amendmentType" is represented as an instance of RE_AmendmentType that identifies the type of amendment proposed.	
Multiplicity:	1	
Value type:	RE_AmendmentType (enumeration)	
Values:	supersession	The proposal requests that an item be superseded.
	retirement	The proposal requests that an item be retired.
Association role:		
Name:	item	
Definition:	The role "item" identifies that the information in the class RE_AmendmentInformation is related to a register item.	
Multiplicity:	1	
Value type:	RE_RegisterItem (feature type)	

B.2.7.4 Object Type: RE_ClarificationInformation

RE_ClarificationInformation	
Definition:	
The subclass RE_ClarificationInformation contains management information about a proposal to clarify an item in a register.	
Subtype of:	
RE_ProposalManagementInformation	
Type:	
Object Type	
Attribute:	
Name:	proposedChange
Definition:	The attribute "proposedChange" is represented as a CharacterString containing a description of the clarification that identifies the elements of the register item that are changed and the prior and subsequent values of each. EXAMPLE The definition of this item was changed to correct a typographical error. The misspelled word "phenomnon" was changed to "phenomenon".
Multiplicity:	1
Value type:	CharacterString

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Association role:	
Name:	item
Definition:	The role "item" identifies that the information in the class RE_ClarificationInformation is related to a register item.
Multiplicity:	1
Value type:	RE_RegisterItem (feature type)

B.2.8 RE_SubregisterDescription

B.2.8.1 RE_SubregisterDescription schema

The model elements for the schema are shown in Figure B.8.

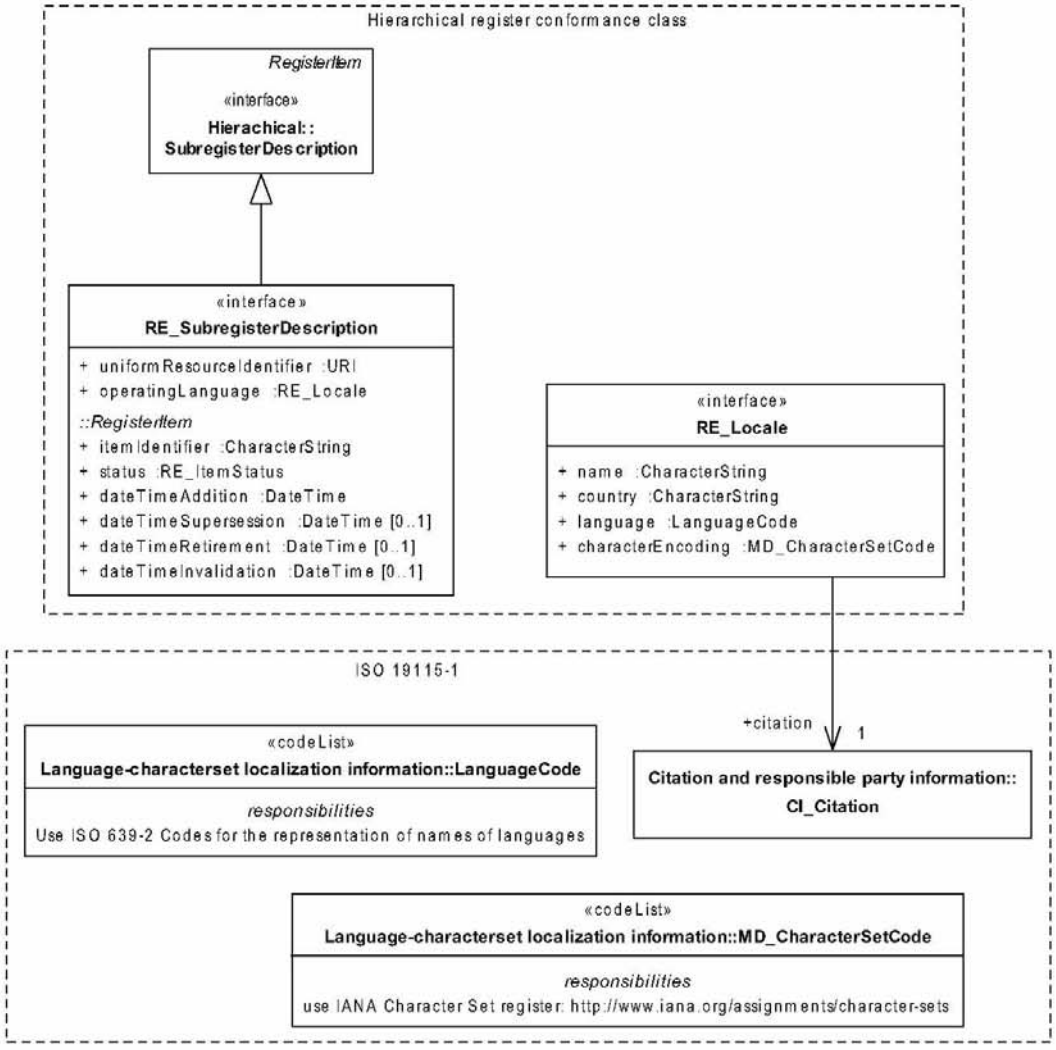

Figure B.8 — RE_SubregisterDescription

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B.2.8.2 Object Type: RE_SubregisterDescription

RE_SubregisterDescription	
Definition:	
RE_SubregisterDescription is a subclass of SubregisterDescription that is used in the principal register of a hierarchical register to describe additional information for each of the affiliated subregisters.	
Subtype of:	
SubregisterDescription	
Type:	
Object Type:	
Attribute:	
Name:	uniformResourceIdentifier
Definition:	The attribute "uniformResourceIdentifier" takes as its value a URI referencing information about online resources associated with the register.
Multiplicity:	1
Value type:	URI
Attribute:	
Name:	operatingLanguage
Definition:	The attribute "operatingLanguage" is represented as an instance of class RE_Locale that is used to specify language, country information and character encoding for the proper interpretation of the content of character strings in the subregister.
Multiplicity:	1
Value type:	RE_Locale

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Annex C
(informative)

Establishment of registers by ISO/TC 211

C.1 General

ISO/TC 211 has developed several technical standards that specify geographic information item classes and may develop more in the future. The TC may choose to establish registers for some of these classes. A proposal to establish a register should be included in the New Work Item Proposal (NWIP) to develop a technical standard that will specify an item class to be registered. ISO/TC 211 may also resolve to establish a register in connection with a standard that is already in development. In all such cases, ISO/TC 211 should be the register owner.

C.2 Appointment of an ISO/TC 211 register manager

When ISO/TC 211 resolves to establish a register, the TC Secretariat shall solicit nominations of qualified organizations (C.3) to serve as the register manager. In order to reduce the proliferation of registration authorities, ISO/TC 211 shall first seek candidates among the registration authorities it has already approved. If no existing ISO/TC 211 register manager is able to serve, the ISO/TC 211 Secretariat shall solicit nominations. Only ISO/TC 211 member National Bodies and organizations in liaison with ISO/TC 211 may nominate organizations to be ISO/TC 211 registration authorities. ISO/TC 211 shall endorse the nomination by letter ballot or by plenary resolution. If more than one candidate is nominated, ISO/TC 211 shall choose between them by letter ballot. Once a candidate has been selected, the ISO/TC 211 Secretariat shall request the approval of the ISO/TMB.

C.3 Qualifications of an ISO/TC 211 register manager

To qualify for designation as an ISO/TC 211 register manager, an organization shall demonstrate that

a) it is a legal entity,

b) it has been in existence for no less than two years,

c) it enjoys a sound financial structure,

d) it has available personnel who are technically competent in the relevant subjects of the technical standards upon which item classes in the register are based,

e) it agrees to function in its capacity as a register manager for a minimum of five years,

f) it has sufficient equipment resources (e.g. hardware, software) and communication facilities (e.g. postal address, telephone, facsimile, e-mail address, website),

g) if it operates with a fee structure, this structure shall be only for the purpose of cost recovery, agreed by ISO/TC 211 and approved by ISO Council, and

h) it shall require no financial contribution from ISO Central Secretariat or ISO members.

C.4 Responsibilities of an ISO/TC 211 register manager

The register manager shall provide a report on its activities to each plenary meeting of ISO/TC 211. It shall indicate (e.g. on its web page) that it has been designated an ISO/TC 211 register manager by ISO.

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In order to promote the standardization of registered items, the register manager shall provide copies of portions of the registers maintained by the register manager to standards developers at no charge under the terms and conditions set by the register manager. The register manager shall complete processing of submitted proposals in no longer than 120 days.

C.5 Contract

If appointed, an ISO/TC 211 register manager shall operate under a contract with ISO. Upon 12 months notice, either the ISO/TC 211 register manager or the ISO may terminate the contract.

The contract document shall

a) identify the principal parties, which are

   1) the International Organization for Standardization (ISO) through ISO/TC 211, and

   2) the ISO/TC 211 register manager (the register manager),

b) identify all organizations engaged by the register manager to establish and/or operate and/or maintain the registry on its behalf (the Third-Party Service Providers),

c) specify the administrative provisions, including

   1) the legal jurisdiction in which the contract is enforceable,

   2) the term of the contract,

   3) the provisions for monitoring and reporting, including reports to plenary meetings of ISO/TC 211,

   4) the schedule for contract reviews,

   5) the provisions for contract renewal,

   6) the provisions for contract variation and change management,

   7) the provisions for dispute resolution,

   8) the provisions for early termination of the contract, either through unexpected forced withdrawal, or through the withdrawal of either principal party following 12 months notice, and

   9) the arrangements for the transfer of the register to ISO/TC 211 following the expiry or termination of the contract,

d) identify the requirements of the contract and the responsibilities of the parties, including

   1) the requirements for the management of the register (reflecting the provisions of Clause 6),

   2) the responsibilities of the register manager (reflecting the provisions of 5.3.2), and

   3) the responsibilities of ISO/TC 211,

e) prescribe the terms and conditions for supplying information to the public, including

   1) the methods of supply,

   2) the procedures for calculating and revising fees (if fees are to be charged), and

   3) the recognition of intellectual property.

The service provision contracts between the register manager and Third-Party Service Providers shall be subject to endorsement by ISO/TC 211 and shall be attached to the contract between ISO/TC 211 and the register manager.

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An attachment to the contract shall nominate the representatives of ISO/TC 211 and the register manager, who are delegated with the responsibility for the day-to-day management and administration of the contract.

C.6 Submitting organizations

In the case of registers established by ISO/TC 211, proposals for adding, clarifying, superseding, or retiring register items may be made by the following submitting organizations:

a) any P member or O member of ISO/TC 211;

b) any organization having liaison status with ISO/TC 211.

C.7 Control bodies

C.7.1 Appointment of control bodies by ISO/TC 211

ISO/TC 211 shall, in consultation with member bodies and liaison organizations, appoint a control body composed of people having appropriate technical expertise.

C.7.2 Responsibilities of control bodies

A control body shall review proposals for action on registration of individual items or sets of items and inform the register manager of its decision within 90 days of receiving the proposal from the register manager.

C.8 Appeals

A submitting organization may appeal to ISO/TC 211 if it disagrees with the decision of a control body to reject a registration proposal. An appeal shall contain at a minimum a description of the situation, a justification for the appeal, and a statement of the impact if the appeal is not successful. In the event of an appeal, the ISO/TC 211 Secretariat shall issue a letter ballot for the TC to vote to accept or reject the appeal. For such a ballot, both votes to sustain and votes to overturn the decision of the control body shall require a statement of the rationale for the vote. The decision of the TC shall be published within 150 days of the date of the appeal.

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Annex D
(informative)

Processing of proposals

D.1 General

This part of ISO 19135 does not describe fully the requirements for the internal processes of a register. The internal processes documented here are examples of internal processes of registers. They are all compliant to the requirements defined in 6.5.

D.2 Approval process

D.2.1 General

The approval process will vary from register to register. An example of the process for determining the acceptability of proposals in an organization with both a register manager and a control body is illustrated in Figure D.1.

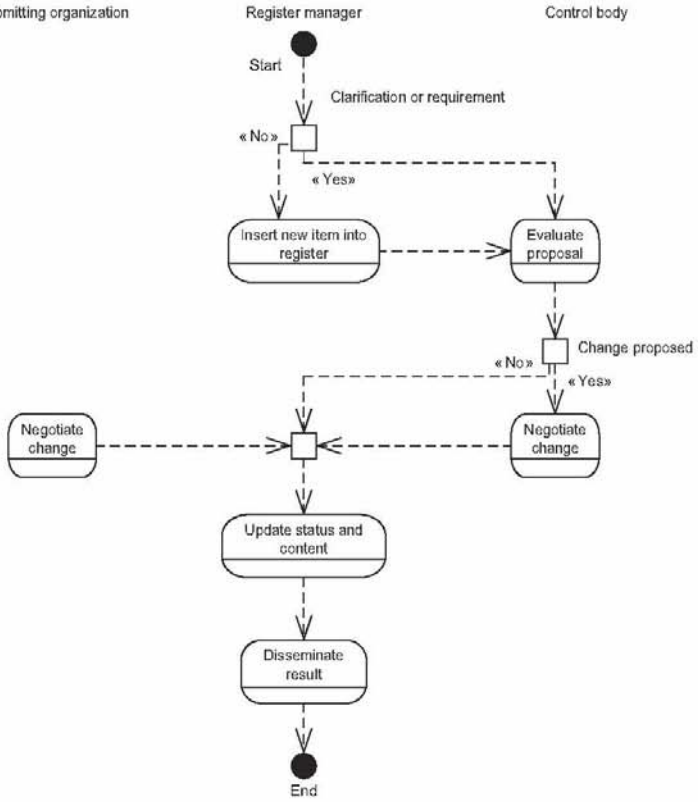

Figure D.1 — Example of an approval process where the control body evaluates the proposal

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D.2.2 Steps in the approval process

D.2.2.1 General

The internal process for the approval process may vary from register to register, but has to fulfil the requirements stated in 6.5.

D.2.2.2 Register manager

The register manager should

a) if the proposal is for clarification or retirement of a register item, update the register if the submitting organization is given the authority, or forward the proposal to the control body, and

b) if the proposal is for registration of a new item or modification of an existing register item:

   1) insert the new or superseding item into the register;

   2) assign an itemIdentifier to the new or superseding item, as specified in (7.5.2);

   3) set the status (7.5.2) to "submitted";

   4) forward the proposal to the control body.

D.2.2.3 Control body

The control body should

a) decide to accept the proposal without change, to accept the proposal subject to changes negotiated with the submitting organization, or not to accept the proposal. Criteria for not accepting a proposal include

   1) the specification of the item is incomplete or incomprehensible,

   2) an identical item already exists in the register,

   NOTE In the case of a hierarchical register, an identical item can exist in more than one subregister.

   3) the proposed item does not belong to an item class included in this register, or

   4) the justification for the proposal is inadequate, and

b) inform the register manager of the decision, and the rationale for the decision, within a time limit specified by the register owner.

D.2.2.4 Register manager

The register manager should

a) serve as point of contact if there is a need for negotiations between the submitting organization and the control body regarding changes to the proposal that are specified by the control body as a condition of acceptance, and

b) inform the submitting organization of the results of processing a proposal.

If the decision of the control body is positive, the register manager should

a) if a complete proposal management record is required, complete the record according to the requirements set in the register,

b) make approved changes to the content of the register item, and

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c) set the status (7.5.2) of the register item to "valid", "superseded", or "retired", as appropriate.

If the decision of the control body is negative, the register manager should

a) if an update to the proposal management record is required, complete the record according to the requirements set in the register, and

b) inform the submitting organization of the deadline for appealing the decision of the control body.

The register manager should disseminate the results of the approval process.

If the decision of the control body is related to a rejected proposal for additions or supersessions, the register manager should

a) remove the item from the register or keep it with the status "invalid".

D.2.2.5 Submitting organizations

Submitting organizations may

a) negotiate with the control body with regard to changes to their proposal that are specified by the control body as a condition of acceptance, and

b) make known within their respective countries or organizations the decisions taken on proposals by the control body as transmitted to them by the register manager.

D.2.2.6 Withdrawal

Submitting organizations may decide to withdraw a proposal at any time during the approval process.

The register manager should

a) if a management record is considered necessary, complete the record according to the requirements set in the register, and

b) change the value of status (7.5.2) to "retired" and the value for dateTimeRetirement (7.5.2) to the current date.

D.3 Appeals

D.3.1 General

An appeal process is not a requirement for a register, but for some kind of registries a formal appeal process may be assigned.

D.3.2 Steps in the appeal process

D.3.2.1 Submitting organization

D.3.2.1 to D.3.2.5 describes a submitting organization that appeals to the register owner if it disagrees with the decision of a control body to reject a proposal. The usual content of an appeal is at the minimum a description of the situation, a justification for the appeal, and a statement of the impact if the appeal is not successful. Such an example of the appeal process is illustrated in Figure D.2.

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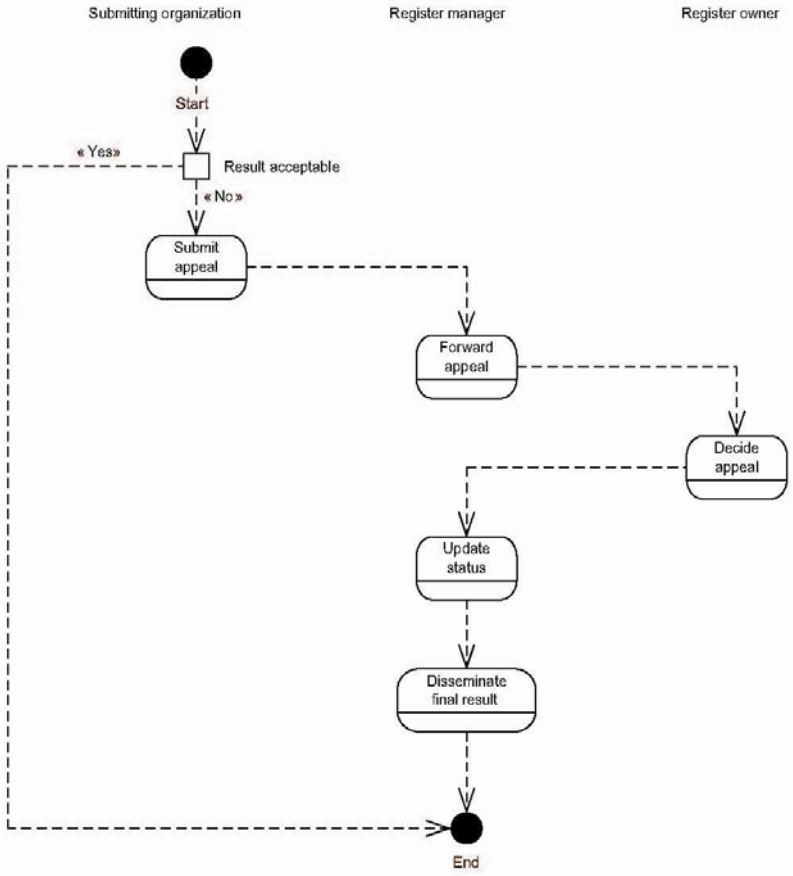

Figure D.2 — Example of appeal process

The submitting organization should

a) determine if the decision regarding a proposal for registration is acceptable, and

b) if not, submit an appeal to the register manager.

D.3.2.2 Register manager

The register manager should forward the appeal to the register owner.

D.3.2.3 Register owner

The register owner should

a) process the appeal in conformance with its established procedures,

b) decide whether to accept or reject the appeal, and

c) return the result to the register manager.

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D.3.2.4 Register manager

The register manager should

a) update the proposal management record, if one exist,

b) update the status (7.5.2) of the register item, and

c) provide the results of the decision to the control body and to the submitting organization.

D.3.2.5 Submitting organization

The submitting organization should

a) make the results of the appeal known within their country or organization.

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Annex E
(informative)

Information to be included in proposals for item registration

E.1 General

Different kinds of registers require different levels of formalism in proposals for item registration. For example, a register of geodetic codes and parameters requires a more formal process than a codelist register managed by the competent authority within a domain. Due to these differences, this part of ISO 19135 has no formal requirements outside the general requirements in Clause 5.

The examples provided in E.2 to E.5 are considered to be best practice.

E.2 Elements of information required for all proposals

The following information should be included in any proposal for registration of an item of geographic information:

a) name of submitting organization;

b) contact information for the submitting organization;

c) date proposal was submitted;

d) statement as to whether the proposal is for addition or modification of an item;

e) justification for accepting the proposal.

E.3 Additional elements of information for proposals to add new items to a register

E.3.1 Mandatory elements of information

The following information should be included in any proposal to add an item to a register:

a) name of the item class to which the item belongs;

b) name of the item;

c) definition of the item.

E.3.2 Conditional elements of information

The following conditional elements of information should be included as needed:

a) citation information that describes the source from which an externally referenced item was obtained;

b) identifier assigned to the item at its source;

c) type of changes made to the item specification as compared to that at its source;

d) additional information, as required by the technical standard that specifies the item class.

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E.3.3 Additional elements of information

Optional elements of information include the following:

a) a description of the item;

b) field(s) of application for which the item may be used;

c) names and definitions and optional elements of the item specification in alternative languages;

d) citation information that describes the lineage of the item;

e) additional comments.

E.3.4 Additional elements of information required for proposals to clarify a registered item

Additional elements of information include the following:

a) item identifier;

b) name of the item;

c) proposed change to the item.

E.4 Elements of information required for proposals to supersede a registered item

For the registered item to be superseded, the following information are required:

a) item identifier;

b) name of the item.

For the new item to supersede a registered item, all elements specified for proposals to add new items to a register (D.2) are included.

E.5 Additional elements of information for proposals to retire a registered item

Additional elements of information include the following:

a) item identifier;

b) name of the item.

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Annex F
(informative)

Backward compatibility

F.1 General

This version of ISO 19135-1 describes three conformance classes. The first conformance class describes the core elements, which are required for all kind of registries. The core profile is a "relaxed" version compared to ISO 19135:2005, but contains enough information to set up "simple" registries.

Due to backward compatibility, a second level was introduced: the extended conformance class. This model extends the elements in the core model with the elements from ISO 19135:2005.

Due to some modifications in the core profile, the extended conformance class is not fully backward compatible with ISO 19135:2005. More detailed information is given in F.4 and F.5.

To distinguish between principal registers and subregisters, the hierarchical conformance class was introduced. This class contains both the "core" "SubregisterDescription" and the extended elements to ensure linguistic adaptability.

The approval process and the appeal process (normative in ISO 19135:2005) has been moved to an informative Annex D. The reason for this change is that these processes will vary with the different kind of registers.

The clauses on UML notation and cultural and linguistic adaptability have been removed. These are not specific to this part of ISO 19135 and this information will be given in other documents. The UML models in the extended model have some ability to handle some linguistic adaptability issues, such as language information for some items.

This part of ISO 19135 has a normative reference (and conformance class dependency) to ISO 19103 and ISO 19115-1. The result of this is that all classes (except enumerations and codelists) are stereotyped <<interface>> .

The textual description of the UML models is generated from the model repository in Enterprise Architect (UML tool), so the output is quite different from that in ISO 19135:2005, but the content is similar.

F.2 Roles and responsibilities of the management of registers

The different roles of the stakeholder (manager, owner, and submitting organization) can be undertaken by the same entity, serving multiple roles. This means that classes have been replaced by roles.

A control body is no longer required, it depends on the register.

F.3 Management of registers

Invalid items may just be removed from the register. For more advanced registries, they may be kept in the register, having its status changed to invalid.

If an inclusion of one or more new items in the register may cause an existing item no longer to be suitable for the use in the production of new data, it may be removed entirely from the register. Alternatively, the original item shall remain in the register and shall have its status changed to superseded and have a reference to the item(s) that superseded it, including the date on which it was superseded.

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F.4 Core register schema/Extended register schema

The core register contains the minimum of what is required to set up a register conformant to ISO 19135-1 and is the "relaxed" version of the model in ISO 19135:2005. The main changes are the following:

RE_Register:

New attribute "identifier" is introduced.

The attributes Name, ContentSummary, uniformResourceIdentifier, operatingLanguage, and alternativeLanguage, including the associated classes, are moved to the extended model.

References to metadata are revised (ISO 19115-1).

RE_RegisterItem

The attributes name, definition, alternativeExpressions, dateAmended, dateAccepted, description, and fieldOfApplication are moved to the extended model. The attributes status, dateAccepted, and dateAmended are no longer derived.

RE_RegisterStakeholder

The classes RE_RegisterManager, RE_RegisterOwner, and RE_SubmittingOrganization are merged into RE_RegisterStakeholder.

RE_ItemClass

New attribute "identifier" introduced.

The attributes name and alternativeName are moved to extended model.

The attribute technical standard is replaced by an association to CI_Citation, with the role name "technicalStandard".

RE_ProposalManagementInformation

This class is moved to the extended model.

RE_Reference and RE_ReferenceSource

Both classes are moved to the extended model.

The attribute "citation" is replaced with an association to CI_Citation, with the role name "citation".

RE_AmendmentInformation, RE_ClarificationInformation, RE_AdditionInformation

All classes are moved to the extended model.

Associated classes, enumerations, and codelists

The classes RE_Version and RE_ItemStatus remain with the core.

The classes RE_Locale, RE_AlternativeExpression, RE_FieldOfApplication, RE_AlternativeName, RE_DispositionStatus, RE_DecisionStatus, RE_SimilarityToSource, and RE_AmendmentType are moved to the extended model.

F.5 Hierarchical register schema

This schema contains the classes SubregisterDescription and RE_SubregisterDescription.

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Bibliography

[1] ISO 704:2009, *Terminology work — Principles and methods*

[2] ISO 6523:1998 (all parts), *Information technology — Structures for the identification of organizationsand organization parts*

[3] ISO 19101:2002, *Geographic information — Reference model*

[4] ISO 19110:2005, *Geographic information — Methodology for feature cataloguing*

[5] ISO 19119:2005, *Geographic information — Services*

[6] ISO/IEC 11179-3:2013, *Information technology — Metadata registries (MDR) — Part 3: Registry metamodel and basic attributes*

[7] ISO/IEC 11179-6:2005, *Information technology — Metadata registries (MDR) — Part 6: Registration*

[8] ISO/IEC 19505-1:2012, *Information technology — Object Management Group Unified Modeling Language (OMG UML) — Part 1: Infrastructure*

[9] ISO/IEC 19505-2:2012, *Information technology — Object Management Group Unified Modeling Language (OMG UML) — Part 2: Superstructure*

[10] ISO/TS 19104:2008, *Geographic information — Terminology*

[11] ISO/IEC/TR 19764:2005, *Information technology — Guidelines, methodology and reference criteria for cultural and linguistic adaptability in information technology products*

[12] ISO/IEC JTC 1, *Procedures for the technical work of ISO/IEC JTC 1 on Information Technology*

[13] ISO/IEC 9973:2013, *Information technology — Computer graphics, image processing and environmental data representation — Procedures for registration of items*

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