



Internal information

Quality plan

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SDK-003 Quality assurance plan for the safety assessment SR-Site

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1. Introduction

1.1 General

In broad terms, a QA (Quality Assurance) plan for a long-term safety assessment of a spent nuclear fuel repository aids in assuring that all relevant factors for long-term safety have been appropriately included and handled in the safety assessment. While no QA system will rigorously prove that this is the case, a purpose designed QA plan and QA system will assist the implementer in carrying out the safety assessment in a structured and comprehensive manner and aid a reviewer in judging the quality and completeness of the assessment.

The methodology for the safety assessment SR-Site will be similar to that used in the SR-Can assessment as described in detail in the SKB Technical report TR-06-09. The final version of the methodology for the SR-Site assessment will be given in the SR-Site Main Report. A principal purpose of a safety assessment of a final repository is to investigate whether the repository can be considered radiologically safe over time. In principle, this is established by comparing estimated releases of radionuclides and associated radiation doses with regulatory criteria.

A large number of factors affecting long-term safety need to be handled in the assessment in a quality assured manner. These factors, or features, events and processes, FEPs, are collected in a FEP database that is also used as a tool for documentation of the outcome of the different steps in the FEP processing procedure as the work proceeds. Thus, the FEP database in itself is regarded as a QA instrument, as further explained in the SR-Can FEP report, TR-06-20. The FEP database and underlying reports demonstrate how specific FEPs are included in the assessment or why they have been excluded.

The handling of many of the FEPs consists of modelling of the repository evolution. This requires a scientific evaluation of the understanding of the processes involved in the modelling, the formulation of mathematical models that simulate the process or system of coupled processes based on the understanding of the phenomena, the translation of the mathematical model into a computer code, derivation of input data and execution of the code. All these aspects need to be documented and quality assured.

Central parts of the QA plan thus relate to the FEP database and to the quantitative treatment of repository evolution.

In establishing this plan, the ISO 10005 standard "Quality management - guidelines for quality plans" has been used as an overall guide.

Lennart Öberg, Q Comp Consulting AB (at the time Scandpower Risk Management AB), provided expert advice in the development of the plan for SR-Can. The SR-Site QA-plan is similar, often identical, to the QA-plan for SR-Can. For the SR-Site project Lennart Öberg has reviewed an early version of the SR-Site QA-plan and will be engaged as a support in the continued QA work.

1.2 Application

The SR-Site report will support the application to build a final repository for spent nuclear fuel and is a sub-project of the Spent fuel project (Kärnbränsleprojektet), see Figure 1. In all general issues the SR-Site project follows the QA plan for Kärnbränsleprojektet SDK-001 "Kvalitetsplan för Kärnbränsleprojektet". SDK-001 is in agreement with general SKB routines described in SKB's

management system. The management system fulfils the requirements of ISO 9001:2000 and has been certified by DNV Certification AB, Sweden. DNV also performs annual audits of SKB.

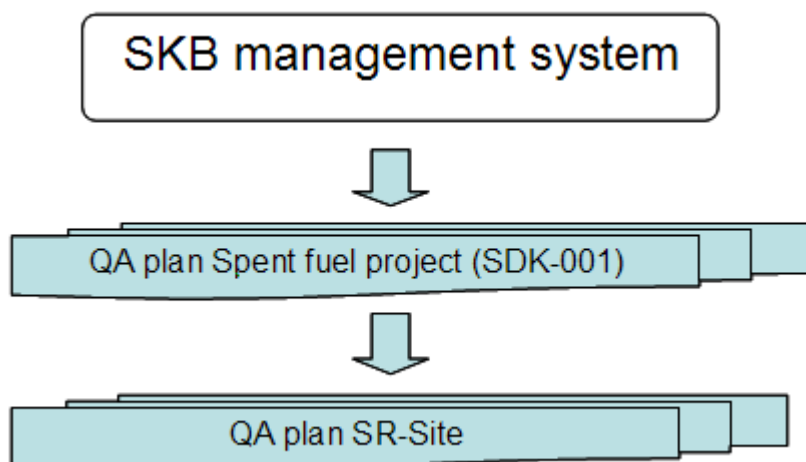


Figure 1: Organisation for QA documents in SR-Site

This quality assurance (QA) plan is a complementary document applicable for the safety assessment SR-Site and its staff, both SKB employees and consultants.

Many of the procedures referenced below have been followed in the project SR-Can from the beginning of the project in September 2003 as a preparation for the SR-Site project.

1.3 Objectives of this QA plan

The objective of this plan is to ensure that all relevant factors for long-term safety have been appropriately included and handled in the safety assessment SR-Site. In particular it should aid in demonstrating:

- that all factors relevant for long-term safety occurring in earlier version of SKB databases and in the international NEA FEP database are considered in the assessment,
- that the exclusion of any of these factors is well motivated by an identifiable expert,
- that the handling of included factors are well motivated by identifiable experts,
- how quantitative aspects of the assessment are handled by mathematical models and how the models (computer codes) have been quality assured,
- how appropriate data for quantitative aspects of the assessment are derived and used in the assessment in a quality assured and traceable manner
- how data, models and analyses used in earlier assessments are qualified for use in SR-Site where applicable, and
- how the safety assessment reports have been properly reviewed and approved for correct and complete content.

2. General issues

2.1 Organisation for QA work in SR-Site

The organisation for the project is shown in the project plan. The QA-coordinator for the SR-Site project participates in a QA-group (SamKom) coordinated by the QA-responsible for the Spent fuel project.

2.2 Responsibility for QA work in SR-Site

The project manager has the overall responsibility for quality assurance in the project SR-Site. The assistant project manager has been assigned the operative responsibility for the handling of quality assurance issues in the project.

The project manager of SR-Site is responsible for

- the review process of the SR-Site reports,
- identification of the project risks and for carrying out and approve preventive measures and for follow-ups of these risks,
- approval of departures from this QA-plan,
- ensuring that applicable regulations listed in the project decision are handled and administrated in the project,
- activities for quality assurance of project realization and project results,
- taking action if there are project nonconformities,
- approval, follow-up and control of corrective actions in case of nonconformities.

The operative responsibility for these tasks is normally delegated to the assistant project manager. The project manager initialises and approves project specific procedures and instructions. In cases where the project manager needs to be the reviewer for a project specific procedure or instruction, the project manager for the spent nuclear fuel project will approve these documents.

For the sections of this QA-plan which are parts of or references to the SR-Site Main Report, the responsibility is divided according to the list below. Project specific procedures are established by the listed project members.

- FEP-database, FEP catalogue	Kristina Skagius-Elert
- Process Reports	Kristina Skagius-Elert
- External Conditions	Jens-Ove Näslund
- Selection of scenarios	Allan Hedin
- Model Summary Report	Fredrik Vahlund
- Input Data, Data report	Fredrik Vahlund

The administrator of SR-Site is responsible for:

- Administration of the QA-plan
- Administration of the steering documents identified in table 1
- Coordination of the establishing of procedures specific for this project and with other parts of the Spent fuel project
- Checking agreement with procedures described in SKB's management system
- Administration of results from QA-reviews, including coordination and control of the follow-up work with nonconformities.
- Follow-up of results from QA-reviews

2.3 QA audits

Internal QA audits are conducted according to the procedure SD-005 in SKB's management system and following a programme approved by the managing director of SKB. For each audit, an audit plan is established in advance, specifying the purpose and focus of the audit as well as the criteria of the audit. The audit is conducted by assigned auditors and the result of the audit is documented in an audit report. A plan for corrective actions of nonconformities identified in the audit is included in the audit report by the audited part and when the plan is approved by the auditing team, the audit report is filed in SKB's internal documentation system SKBdoc.

2.3.1 History of QA audits

Audit 2008-09-30 to 2008-10-01

The purpose of an audit carried out 2008-09-30 to 2008-10-01 was to review the appropriateness of the SR-Site quality assurance plan and its supporting steering documents and the application of these in the project work. In addition, the audit addressed the implementation of procedures for handling comments related to quality assurance from the regulator's review of the safety assessment SR-Can (see also section 2.5.1). The audit resulted in four nonconformities and five observations or opportunities for improvements and corrective actions have been defined and documented in the audit report (SKBdoc-ID: 1182361). As a result of the experience from this audit, a second internal QA audit was ordered by the SR-Site project to be held during the first half of 2009.

Reports of project QA-audits and a list of nonconformities are available in the SKB management system, (see also section 2.3).

2.4 Steering documents

Most of the steering and QA-related documents for the project SR-Site are listed in table 1 to aid users of this document, including reviewers, in finding specific procedures, instructions and other documents related to the SR-Site QA work. Most items in the list are referred to in this QA-plan.

Table 1. Steering and QA-related documents for SR-Site

Item	Object	Language	Location	Comments
1.	Project decision	Swedish	SKBdoc-ID: 1069989	
2.	Project plan	Swedish	SKBdoc-ID: 1080448	
3.	Project risk analysis	Swedish	SKBdoc-ID: 1081678	Handling of risks is made according to SDK-114
4.	SDK-001 Quality assurance plan Spent fuel project	Swedish	SKBdoc-ID: 1054816	
5.	Quality assurance plan SR-Site	English	SKBdoc-ID: 1064228	
6.	Time plan	English	SKBdoc-ID: 1093768	
7.	List of experts	English	SKBdoc-ID:	In progress
8.	Review plan for SR-Site reports	English	SKBdoc-ID: 1182953	Appendix 9 to this QA-plan.
9.	Template for review comments	English		Provided by the Spent fuel project
10.	Instructions for development and handling of the SKB FEP database – Version SR-Site	English	SKBdoc-ID: 1082126	Appendix 1 to this QA-plan.
11.	Instructions for developing process descriptions in SR-Site and SR-Can	English	SKBdoc-ID: 1082127	Appendix 2 to this QA-plan.
12.	Instruction for qualification of “old” references	English	SKBdoc-ID: 1186579	Appendix 8 to this QA-plan
13.	Plan for model and data quality assurance for the	English	SKBdoc-ID: 1082128	Appendix 3 to this QA-plan.

	safety assessment SR-Site			
14.	SR-Site Model Summary Report Instruction	English	SKBdoc-ID: 1082130	Appendix 4 to this QA-plan.
15.	Supplying data for the SR-Site Data Report	English	SKBdoc-ID: 1082129	Appendix 5 to this QA-plan.
16.	Instruction for task description for the safety assessment SR-Site	English	SKBdoc-ID: 1183027	Appendix 6 to this QA-plan
17.	Instruction for final control of data used in SR-Site calculations/modelling	English	SKBdoc-ID: 1186612	Appendix 7 to this QA-plan

The project is defined by issuing, within SKB, a project decision, (item 1 in table 1) describing the purpose of the project, its deliverables, its time frame, necessary prerequisites in terms of data deliveries from related projects, the actors involved in the project and their roles, a budget frame etc.

A project plan (item 2 in table 1) is established, giving more detailed descriptions of how the purposes of the project are to be fulfilled. The project plan is updated as necessary throughout the project.

Associated with the project plan is a risk analysis document (item 3 in table 1), identifying critical issues that could jeopardise the fulfilment of the project objectives. The risk analysis is updated several times per year.

Also this QA plan (item 5 in table 1) is associated with the project plan. The QA plan builds on the general QA plan for the Spent fuel project, item 4 in table 1.

A time plan (item 6 in table 1), covering project activities and their interdependencies is established and updated continuously.

Any planned departures from steering documents, such as SKB-routines and documents referred to in this QA-plan, will be documented in a decision, brought up in project meeting and entered in the minutes of the project meeting. Decisions are stored in the SR-Site map system in SKBdoc.

The rest of the documents in table 1 are referred to in the following sections.

2.5 Demonstrations of fulfilment of regulatory criteria

The main purpose of the SR-Site project is to determine whether a safe repository of the KBS-3 type can be built at the selected site. This is ultimately determined by comparing potential releases from the repository to regulatory criteria and by fulfilling all regulatory requirements on the contents of the safety report and on the practices when developing the safety assessment.

Applicable regulations are listed in the project decision. To ensure that regulations are followed, all relevant regulatory requirements will be duplicated in an Appendix of the SR-Site Main Report. References are inserted in the regulatory text to sections of the main report, or underlying reports, where fulfilments of the requirements are demonstrated.

An example of how this is implemented can be found in the SR-Can Main Report, SKB TR-06-09. The same structure will be followed in the SR-Site Main Report.

2.5.1 Findings in regulator's review reports

A related issue concerns review reports, issued by Swedish authorities, of SKB's past safety assessment reports. It is important that issues raised in relevant review reports are considered in the SR-Site project.

Of particular concern for the SR-Site project is SKI's and SSI's report from their joint review of the SR-Can report. The review report was published in March 2008 in Swedish and in October in English. A procedure for ensuring an adequate handling of the review findings has been established:

The contents of every paragraph of the report are analysed by relevant members of the SR-Site team and SKB's handling of the various issues raised is described through inserts in the report text.

The main review report /SKI report 2008:23/ is the most relevant document for SKB to consider since it expresses the authorities' view of all reviewed aspects of the SR-Can reporting. There are also a number of background reports to aid the authorities in the review. All background reports are read and considered by relevant members of the SR-Site team in conjunction with the establishment of the handling of the issues in the main review report.

2.6 Documentation of experts' credentials

Expert judgements permeate the safety assessment. It is essential to be able to trace which experts contributed to the various parts of the assessment and what judgements were made by which expert in each step. In several of the central documents, (data report, process reports) relevant references will be made to these experts.

All experts contributing to the safety assessment are listed in a separate document where also references are given to where at SKB the credentials of the experts are filed. The document also contains a statement which formally approves the individual as an expert for the SR-Site assessment. The list of experts and the motivation for their selection is filed in the SR-Site project archive, item 7 in table 1.

In general, experts are selected on the basis of their documented credentials. There are, however, no particular procedures for the selection of experts. The generalists in the project group will provide a large part of expert judgements and these individuals have, as will be documented, been working with the safety of the KBS-3 system for a number of years and will thus be among the most experienced individuals available on the various aspects of the analysis of the system.

Regarding experts for the documentation of process understanding, for the selection of models or of input data etc for the quantitative aspects of the assessment, the ambition is to contract leading experts in the field. The merits of these experts will be documented, providing a justification for their involvement. Should formal elicitations of a panel of experts be required to resolve an issue, the selection of experts for such a panel would be justified and documented in a more detailed manner.

2.7 QA procedures for reports

2.7.1 Writing

The main references to the SR-Site main report are listed in the project plan. Most reports will be written in English to facilitate discussions and reviewing in international contexts.

Several reports in SR-Site will be structured according to pre-defined templates, see further sections 3.3, 3.4, 3.5 and 4.2. The handling of reports is addressed in section 2.8.

All reports will be reviewed according to a review plan, see below.

2.7.2 Peer reviewing

Peer reviewing with subsequent handling of review comments is an important method for broadening the basis on which expert opinions/judgments are formed in a safety assessment.

All reports produced in the SR-Site project will therefore be subject to peer review within the project prior to being finalised. A review plan has been established and filed in the project archive, item 8 in table 1. This review plan defines the document that should be provided to the reviewers, general criteria for acceptance of a report, requirements on reviewers' competence and how the review documents shall be handled (see section 2.8). This review plan further prescribes that a review instruction is produced for each report subject to review in which the general as well as report-specific acceptance criteria are specified together with the selected reviewers and their competence.

A template, item 9 in table 1, for review comments is used and the comments are filed to ensure traceability of the review process. The template also requires the author of the report to document how each comment is handled when the report is finalised.

Demands on reviewers:

- A reviewer should not have been involved in the production of the report but may be involved in other parts of the SR-Site project.
- All reviewers will be included in the expert database mentioned above, where their role(s) in the SR-Site project will be documented.

A final check will be carried out to ensure that references are correct within and between reports, correct use of language in text by authors not writing in their mother tongue, etc.

It is required that all documents that are produced for the license application shall undergo a factual and quality review. However, many of these new documents need to refer to older or SKB external documents that lack a documented factual and quality review. For example, process descriptions in the SR-Site process reports (see section 3.4) contain many references to old or external documents of this type. A procedure for qualification of documents that are used as references in SR-Site reports has been developed (item 12 in table 1). This procedure implies that qualification of references is made in the report where the references are used, e.g. in the process descriptions in the process reports. The qualification is then reviewed by the experts selected for factual review of the report in question, e.g. the process report.

2.7.3 Approval

The project manager of SR-Site approves all reports except the main report, which is approved by the project leader of the Spent fuel project, of which SR-Site is a sub-project.

2.8 Handling of documents

All steering documents for SR-Site are registered in SKBdoc after review and approval by the project manager or by the project manager of the Spent fuel project. These steering documents regulate the handling of QA-related documents produced in the project.

Computational tasks in SR-Site are defined in Task descriptions (see section 4.3). These documents are registered in SKBdoc after review and approval by the project manager according to the instruction for producing task descriptions (item 16 in Table 1).

In order to ensure that the final analyses/calculations are carried out using qualified data, a check of used data against the qualified data provided in the data report is required. According to the instruction for final control of data used in SR-Site calculations/modelling (item 17 in Table 1), the result of the control is registered in SKBdoc.

No specific handling is defined for reports under production. However, review versions of the reports are registered in SKBdoc together with the review instruction, the review document containing review

comments and the handling of the comments (see section 2.7.2), and the final version of the report, as defined in the review plan for SR-Site reports (item 8 in Table 1).

Handling and documentation of data is described in the Plan for model and data quality assurance for the safety assessment SR-Site (item 13 in Table 1) and specified in the Task descriptions produced for the computational tasks.

Notices and minutes of meetings are registered in SKBdoc.

3. FEP handling

3.1 Introduction

An important and formal tool for ensuring that all relevant factors have been considered in the safety assessment is provided by available databases of features, events and processes (FEPs) relevant to long-term safety of nuclear waste repositories.

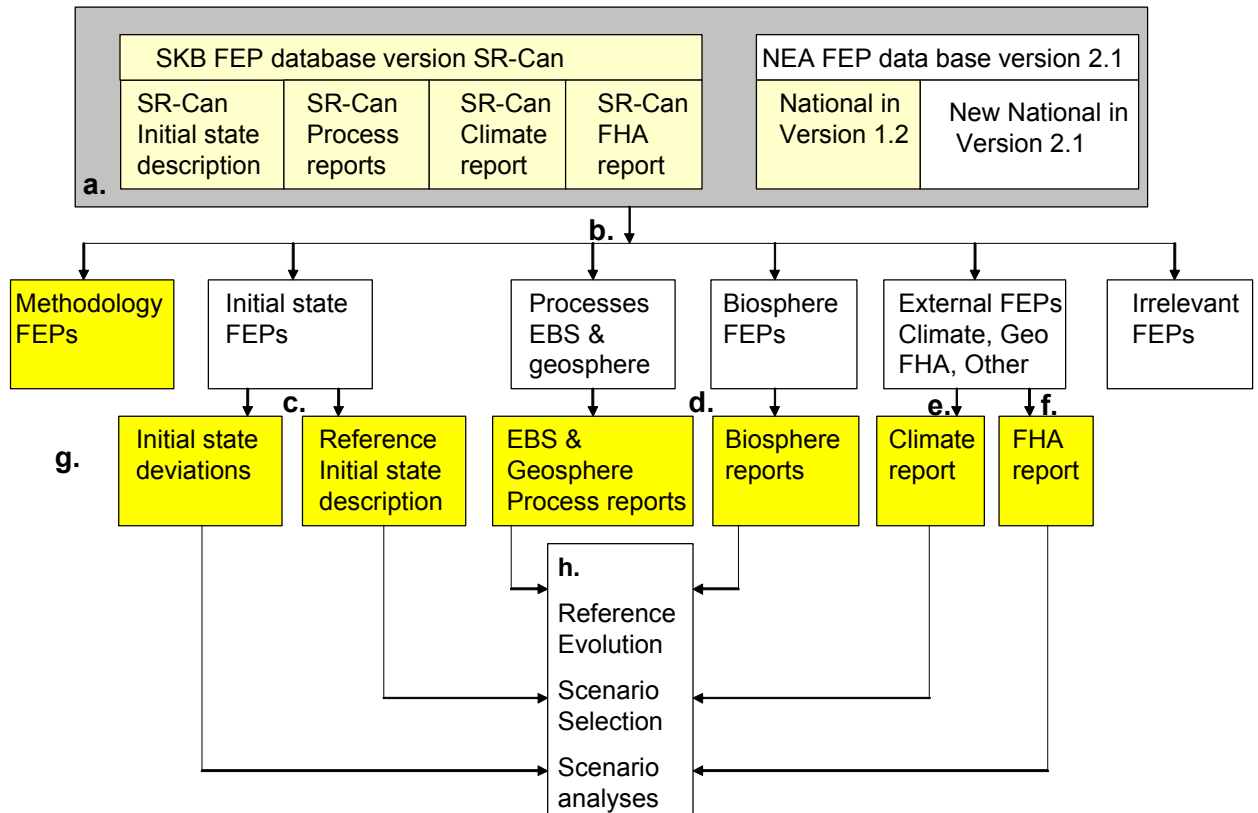
A new version of SKB's database of FEPs relevant to the long-term safety of a KBS-3 repository was developed within the SR-Can project /SKB TR-06-20/. The database will be updated for SR-Site. The SR-Can QA procedures for the FEP database were fully implemented when the SR-Can FEP database was developed, whereby it is considered justified, from the point-of-view of quality assurance, to base the SR-Site FEP database on the SR-Can version.

In the database, most items have been classified as one of the following:

- Processes within the system boundaries relevant to long-term safety.
- Factors affecting the initial state of the repository, either directly related to a specific aspect or to the initial state in general.
- External factors relevant to long-term safety, e.g. climatic evolution and human intrusion.

All other FEPs were characterised as general methodology issues or deemed as irrelevant for the KBS-3 system and therefore screened out. A FEP catalogue covering all FEPs to be considered in the scenario selection is established. Most of these FEPs are also collected in a so called FEP chart, showing how all FEPs are related to safety. Ideally, all identified FEPs in the FEP catalogue should be possible to map to the chart. The chart thus provides an overview of how all FEPs interplay and how they are related to safety. The FEP chart is primarily a tool for the selection of scenarios and for structured discussions of safety relevant factors.

The handling of FEPs in SR-Site is illustrated in figure 2. The procedure is essentially the same as that used in SR-Can. The difference is that the point of departure is the SKB FEP database developed within the SR-Can project and the two national databases in the NEA international FEP database that have been added in version 2.1 of the database as compared with version 1.2 which was the basis for the SR-Can version of the SKB FEP database.



- a. The starting points for the SR-Site FEP handling are FEPs in the SR-Can version of the SKB FEP database including the SR-Can FEP catalogue and associated SR-Can reports, and the two national data bases that are new in the NEA international FEP database version 2.1 as compared with version 1.2, which was the starting point for the SR-Can version of the SKB FEP database.
- b. FEPs are sorted into three main categories: *i*) initial state, *ii*) process and *iii*) external FEPs. FEPs are also categorised as irrelevant or as being related to methodology at a general level.
- c. Initial state FEPs are either *i*) included in the initial state description in SR-Site, i.e. the reference description of the KBS-3 repository, the site description or the site-specific layout of the repository or *ii*) categorised as initial state deviations to be further handled in scenario selection.
- d. Process FEPs are used to update the SR-Can set of internal processes for the EBS and the geosphere. The resulting SR-Site set of processes will be documented in the SR-Site Process reports. Biosphere FEPs will be handled in various biosphere reports and references to these reports will be given in the SR-Site biosphere main report.
- e. The handling of external FEPs related to long-term climate changes will be documented in the SR-Site Climate report. The few external, large-scale geosphere FEPs will be addressed in the geosphere process report.
- f. The handling of external FEPs related to future human actions (FHA) will be developed in the SR-Site FHA report. The only “other” external FEP, meteorite impact, was dismissed in SR-Can as being extremely unlikely. No new “other” external FEPs has been identified for SR-Site.
- g. The FEPs handled in the yellow boxes constitute the SR-Site FEP catalogue.
- h. The reference initial state, all long-term processes and a reference external evolution is used to define a reference evolution for the repository system. This evolution is an important basis for a comprehensive main scenario. A set of additional scenarios address e.g. deviations from the reference initial state and from the reference external evolution as well as situations related to FHA.

Figure 2. The handling of FEPs in SR-Site.

3.2 FEP database, FEP catalogue

A database of all the relevant factors to be considered in the safety assessment is developed. In short, the database answers questions like:

- Is a factor included? How? Who made the decision?
- Is a factor neglected? Why? Who made the decision?

Quality assured handling of the FEP database is ensured by a set of instructions, item 10 in table 1.

3.3 Initial state of engineered barriers

The initial state of the engineered barriers, i.e. their state at the time of deposition in the final repository will be documented in a set of dedicated reports. A part of each report will be structured according to the set of variables used to describe the state of each of the barriers over time.

3.4 Process reports

The repository system will evolve as a consequence of a number of radiation related, thermal, hydraulic, mechanical, chemical and biological processes acting within the repository system over time. These processes are identified in the FEP handling and the current knowledge and the handling of the identified processes in SR-Site (mathematical modelling, simple estimate, neglected) will be documented in three dedicated Process Reports covering processes in the fuel/canister, the buffer/backfill and the geosphere, respectively. If a process is to be mathematically modelled, a reference to the applicable model is given. See further section 4 for quality assurance of models and calculation procedures. The documentation of handling of biosphere processes will be made in several of the biosphere reports and references to these reports will be given in the biosphere main report.

The names of the experts responsible for the documentation of each process are recorded in the list of experts (section 2.6) and will also be recorded in the process reports. The reports are subject to external review, as part of the review plan, see section 2.7.2.

Each process and its handling is documented according to a template and an instruction, item 11 in table 1. The template will be documented in the introductory chapter of each process report and in the SR-Site Main report. (A similar template was used in the SR-Can project and is documented in for example SKB TR-06-09, section 6.3.).

3.5 External conditions

The handling of FEPs related to external conditions will be documented in a dedicated report, with a structure similar to the process reports. The same instruction as for the process reports are utilised when describing the processes in the Climate report, item 11 in table 1. Differences between handling the processes for the Climate report and for the process reports described in section 3.4 are accounted for in the instruction.

3.6 Selection of scenarios

The method for selection of scenarios and the implementation of the method will be described in the SR-Site main report, in a similar manner as in chapter 11 of the SR-Can Main report /TR-06-09/. In addition, a formally more rigorous description of the procedure for the selection of scenarios will be considered in the SR-Site project, prior to the actual selection in SR-Site. A routine that can be followed in this step of the assessment will also be considered.

4. Scenario modelling

The overall handling of data and models is described by *Plan for model and data quality assurance for the safety assessment SR-Site*, item 13 in table 1. In this plan, references are made to more specific instructions, see below.

4.1 Model summary report

Quantitative aspects of the repository evolution are primarily assessed by mathematical modelling of each scenario, using a set of computer codes. One or several so called assessment model flow charts, AMFs, are used to overview the models and their interdependencies.

A model summary report is prepared where all models in the AMF are represented. The purpose of the model summary report is to summarise all necessary documentation for quality assurance of models and the calculation procedures in the safety assessment. It thus covers, either explicitly or by references to supporting documents:

- A description of the mathematical model (the equations to be solved).
- A description of the methods by which the solution is obtained, usually a purpose designed computer code.
- User manuals
- Measures that have been taken to ensure that the code produces the correct solution to the mathematical problem, verification. This can e.g. be achieved by comparison to solutions obtained with other codes or to analytic solutions for special cases if available.
- Procedures for documenting input data and results of the assessment calculations.

The computer codes vary in complexity and nature, meaning that a differentiated approach is required in order to achieve the aforementioned points. The model summary report outlines the principles behind such a differentiated approach. Each model is then treated in a dedicated section, where all the above issues are covered, following a specified instruction and template, item 14 in table 1. A similar template is documented in the SR-Can Model summary report, SKB TR-06-26, section 2.4

4.2 Input data, data report

Input data, with uncertainty estimates, to the mathematical modelling of repository evolution is quality assured through procedures that will be documented in a dedicated Data Report. The procedures include

- Externally reviewed expert documents as basis for data selection (for essential data)
- Assessment team data selection based on expert documents
- Expert feedback on assessment team data selection

These procedures are described in an instruction, item 15 in table 1. Similar procedures are documented in the Data Report for the SR-Can project, SKB TR-06-25, sections 2.2 and 2.3.

4.3 Task description

Information on how computational tasks in SR-Site should be conducted is provided in Task descriptions. The format for and contents of these Task descriptions are regulated by an instruction and a template for Task descriptions (item 16 in Table 1).

A separate procedure (item 17 in Table 1) will be applied to check input data in the calculations in order to ensure that the data used are those that are quality assured in the Data report (see section 4.2). The motivation for using a certain set of input data in the safety assessment is also provided in the Data Report, see section 4.2.

5. List of appendixes

Project specific instructions for work in the SR-Site project constitute appendixes to this QA-plan. This QA-plan and the appendixes are filed as separate documents with different IDs in SKBdoc.

The date from which each instruction will be available is listed in table 1.

The appendixes to this QA-plan are:

- Appendix 1. Instructions for development and handling of the SKB FEP database – Version SR-Site (SKBdoc-ID: 1082126)
- Appendix 2. Instructions for developing process descriptions in SR-Site and SR-Can (SKBdoc-ID 1082127)
- Appendix 3. Plan for model and data quality assurance for the safety assessment SR-Site (SKBdoc-ID 1082128)
- Appendix 4. SR-Site Model Summary Report Instruction
- Appendix 5. Supplying data for the SR-Site Data Report (SKBdoc-ID 1082129)
- Appendix 6. Task description for the safety assessment SR-Site (SKBdoc-ID: 1183027)
- Appendix 7. Final control of data used in SR-Site calculations/modelling (SKBdoc-ID: 1186612)
- Appendix 8. Instruction for qualification of “old” references (SKBdoc-ID: 1186579)
- Appendix 9. Review plan for SR-Site reports (SKBdoc-ID: 1182953)

6. Revisions of QA-plan

VERSION	DATE	CONTENT OF THE REVISION	MADE BY	REVIEWED BY	APPROVED BY
3.0	See head of first page	Section 2.2 is updated and a new section 2.3 added. Table 1 in section 2.4 and section 2.4 is updated. Section 2.5 is updated. Sections 2.6 and 2.7 are updated and a new section 2.8 is added. Parts of sections 3.1 and 3.4 are updated. Figure 2 in section 3.1 is updated. Section 3.6 is updated. Parts of sections 4.1 and 4.2 are updated and a new section 4.3 is added. Chapter 5 is updated.	Kristina Skagius, Allan Hedin, Christian Nyström	Ingrid Aggeryd	Olle Olsson
2.0	2008-07-03	- Chapter 2.3 is updated including Table 1 - Updated handling of SR-Can review report and of documentation of experts - Chapter 3.5 is updated - Parts of chapter 4.1 is updated - Editorial changes	Christian Nyström, Allan Hedin	Ingrid Aggeryd	Olle Olsson
1.0	2008-02-20	New document	Christian Nyström, Allan Hedin	Ingrid Aggeryd	Olle Olsson