



Strål
säkerhets
myndigheten

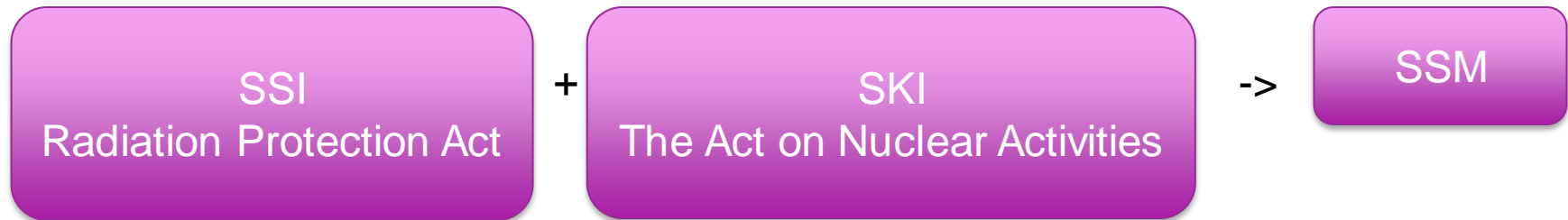
Swedish Radiation Safety Authority

Review of regulations for activities involving radiation and especially for nuclear installation

Meeting with ERPAN June 2014



Two Authorities became one 1st of July 2008



2008 Committee: Merging the provisions of the two acts

2011 Proposal: Environmental Code

Today: Still no change



Three reasons for a more comprehensive review of the regulations

1. Present regulations are too general and not sufficiently comprehensive
 - Developed in a situation with other conditions
 - Application experience \Rightarrow need to specify
2. IRRS recommendations 2012
 - Pointed out gaps
3. Need to be expanded and clarified to cover new facilities



Problems with the current regulations

- Difficult for licensees to always understand the implications of the regulations
- Difficult with SSM's review and inspection against too general requirements
- Most significantly for SKIFS 2004:2/SSMFS 2008:17 ("Design of NPP")
 - where we now, nine years after the regulations came into force, still have discussions both internally and externally on the interpretation of certain key provisions
- Clarifications/specifications have been needed afterwards



IRRS recommendations and suggestions

- **R15:** Based on the results of the review of the current regulations and general advice SSM should develop a consistent and more comprehensive set of regulations and general advice
- **S9:** SSM should consider elaborating the regulations “SSMFS” and related “General advice” guidance to cover the issues identified as missing in the current regulatory requirements and guides

IAEA Safety Standards
for protecting people and the environment

Governmental, Legal
and Regulatory
Framework for Safety

General Safety Requirements Part 1
No. GSR Part 1





Regulations for new reactors

- ➔ Assignment in the government appropriation letter for 2012 to formulate regulations for new reactors
- ➔ Is a prerequisite for Vattenfall to submit detailed application documentation
 - Which they plan to start around the year-end 2014/2015

Guiding principles in the work:

- clarity
- predictability
- appropriateness
- traceability



Points for the rulemaking

- ➔ All activities involving ionizing radiation should be covered
- ➔ Basic regulations for all activities involving ionizing radiation
- ➔ Medical use, sources in not nuclear installations in special projects
- ➔ Both new and existing nuclear power plants in the same "package"
 - some general or specific exemptions for existing may be necessary
- ➔ Refers to all the radiation safety aspects of nuclear installations
 - i.e. safety, radiation protection, security and non-proliferation
- ➔ Will be based on own experience, BSS, WENRA, IAEA
 - Fundamentals, Requirements, Standards
- ➔ and will be influenced by our sister organisations' work

Guiding principles in the work:

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Important principles for the structure and further work

- Aspects of safety, radiation protection, security and non-proliferation will be regulated together to a greater extent
 - in contexts where these aspects are relevant
- The same applies to issues of management and governance
- Some issues/aspects separately regulated
 - for nuclear power plants and other nuclear facilities
- Regulate radiation safety
 - partly for different stages of a plant's lifetime
 - partly for the different main types of issues



The overall structure

Common to many activities



Basic regulations for all activities involving ionizing radiation

Common to all nuclear facilities



Nuclear power plants



Other nuclear facilities



Medical exposures



Technical devices



Radioactive sources





Basic regulations for all activities involving ionizing radiation



- Chapter 1 Who, why, definitions
- Chapter 2 Basics principles, risk analysis, justification, optimization, BAT, barriers, defense of depth, workplaces, information safety, physical protection, preparedness
- Chapter 3 Dose limits, dose restriction
- Chapter 4 Organization, management
- Chapter 5 Protection of workers
- Chapter 6 Protection of the public and the environment, discharges, waste, decommissioning



Common to many activities

Basic regulations for all activities involving ionizing radiation



Council Directive 96/29/EURATOM of 13 May 1996

laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Article 31 and 32 thereof,

Having regard to the proposal from the Commission, drawn up after obtaining the opinion of a group of persons appointed by the Scientific and Technical Committee from among scientific experts in the Member States,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas Article 20 of the Treaty provides for the establishment of uniform basic safety standards for the protection of the health of workers and of the general public against the dangers arising from ionizing radiation;

Whereas Article 30 of the Treaty deems it to be in the interest of the Community to lay down basic standards for the protection of the health of workers and of the general public against the dangers arising from ionizing radiation;

- (a) maximum permitted levels of radiation exposure;
(b) maximum permitted levels of contamination;
(c) the fundamental principles of radiation protection.

Whereas Article 33 of the Treaty requires each Member State to lay down the appropriate provisions, whether by legislation, regulation or administrative action, to ensure compliance with the basic standards which have been established and shall take the necessary measures with regard to teaching, education and vocational training.

Whereas in order to perform its task the Community laid down basic standards for the first time in 1959 pursuant to Article 218 of the Treaty by means of Directive of 2 February 1959 laying down the basic standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation, whereas the Directives were

revised in 1962 by Directive of 5 March 1962, in 1966 by Directive 66/45/Euratom, in 1976 by Directive 76/572/Euratom, in 1979 by Directive 79/343/Euratom, in 1980 by Directive 80/836/Euratom and in 1984 by Directive 84/462/Euratom.

Whereas the basic standards directives have been implemented by Council Directive 84-462/Euratom of 3 September 1984 laying down basic measures for the radiation protection of persons undergoing medical examination or treatment, Council Decision 87/600/EEC of 14 December 1987 on Community arrangements for the early exchange of information in radiological emergency, Council Decision 89/18/EEC of 22 December 1989 on the exchange of information in radiological emergency, Council Directive 89/618/Euratom of 21 December 1989 on the case of radiological emergency, Council Directive 89/618/Euratom of 21 December 1989 on the case of radiological emergency, Council Directive 89/618/Euratom of 21 December 1989 on the case of radiological emergency,

Whereas the development of scientific knowledge concerning radiation protection, as expressed in particular in Recommendation No. 40 of the International Commission on Radiological Protection, makes it convenient to revise the basic standards and to lay them down in a new legal instrument.

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* OJ No L7, 6.7.1962, p. 1633-62.
* OJ No L26, 26.11.1966, p. 1693-96.
* OJ No L27, 12.12.1976, p. 1.
* OJ No L31, 4.4.1979, p. 15.
* OJ No L264, 17.10.1980, p. 1.
* OJ No L265, 5.10.1984, p. 4.
* OJ No L265, 5.10.1984, p. 1.
* OJ No L371, 30.12.1987, p. 9.
* OJ No L371, 30.12.1987, p. 11. Regulation as amended by Regulation (Euratom) No 2118/89 (OJ No L 211, 22.7.1989, p. 18).
* OJ No L 377, 7.12.1989, p. 31.
* OJ No L 346, 12.12.1989, p. 21. Directive as amended by the 1994 Act of Accession.
* OJ No C 102, 18.4.1993, p. 48.
* OJ No L 21, 20.1.1999, p. 221-59.

IAEA Safety Standards for protecting people and the environment

Fundamental Safety Principles



Safety Fundamentals No. SF-1



IAEA Safety Standards for protecting people and the environment

The Management System for Facilities and Activities

Safety Requirements No. GS-R-3

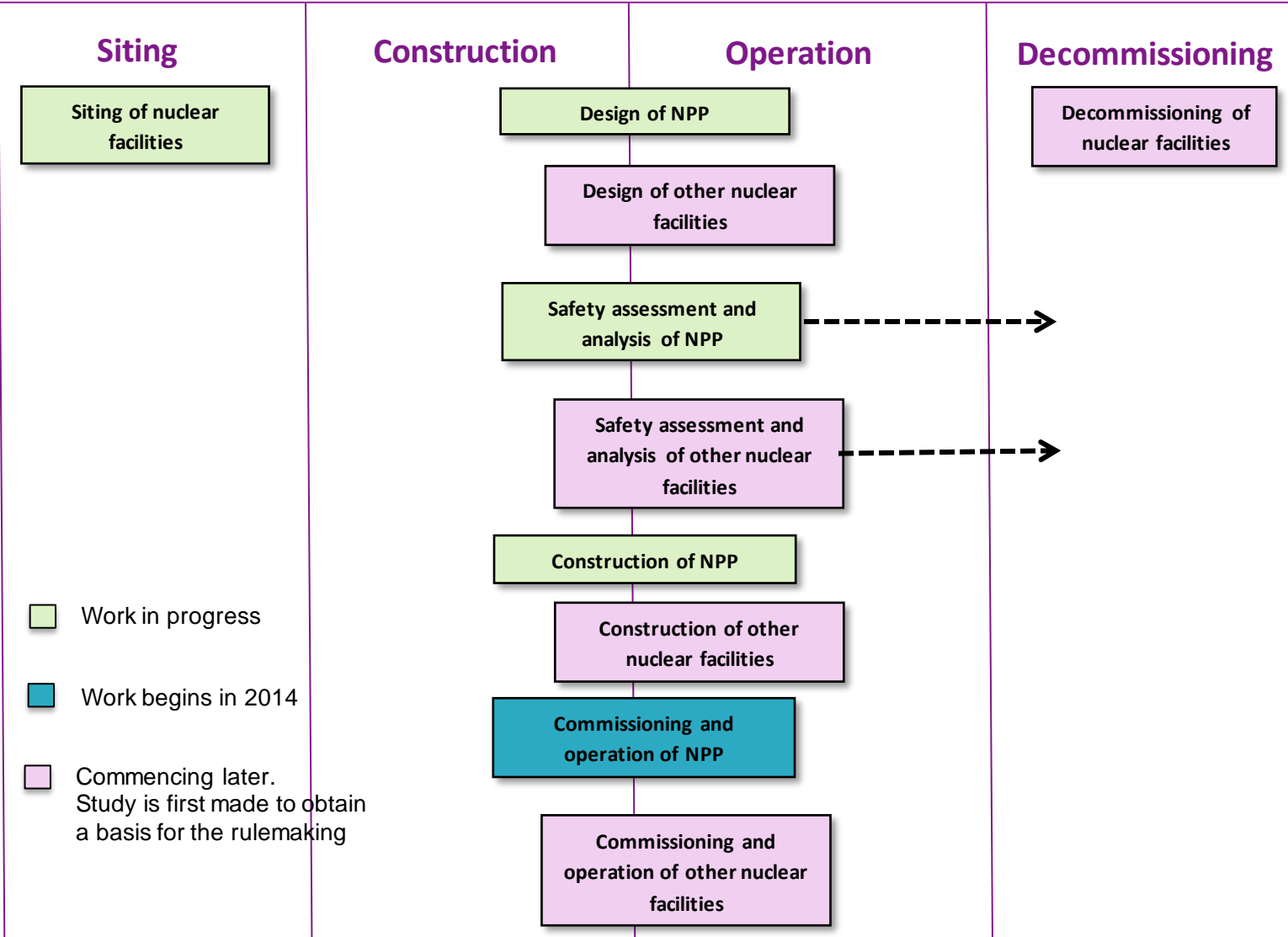




Common to many activities

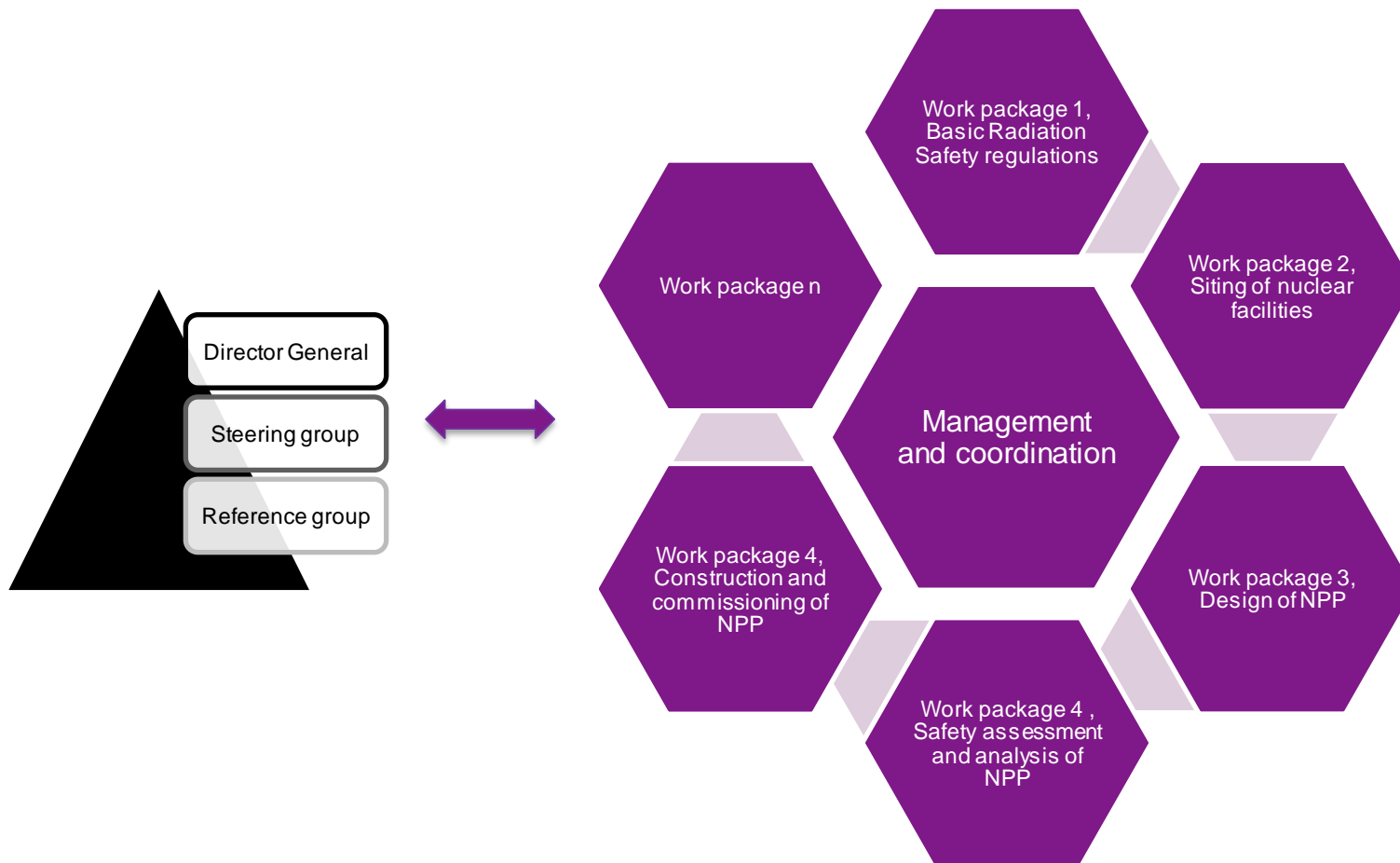
Basic regulations for all activities involving ionizing radiation

Regulation on "plant level"





Project organization, which will be expanded gradually





Some links:

The Act on Nuclear Activities (1984:3)	http://www.stralsakerhetsmyndigheten.se/Global/IRRS/Act%20on%20Nuclear%20Activities.pdf
Radiation Protection Act (1988:220)	http://www.stralsakerhetsmyndigheten.se/Global/IRRS/Radiation%20Protection%20Act.pdf
A summary of the investigation to merge the acts (page 65-111)	http://www.regeringen.se/content/1/c6/16/16/69/832038a6.pdf
SSMs English web site	http://www.stralsakerhetsmyndigheten.se/In-English/About-the-Swedish-Radiation-Safety-Authority1/
IRRS 2012	http://www.stralsakerhetsmyndigheten.se/In-English/Facts-about-us/IRRS-2012/
Nuclear Power in Sweden	http://www.world-nuclear.org/info/Country-Profiles/Countries-O-S/Sweden/