

The EURSSEM Initiative/Network

(Environmental Radiation Survey and
Site Execution Manual)

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EURSSEM; Contents

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EURSSEM; Introduction, background

Aim

- ~ The development of a manual / guidance for member states of the European Community that deals with all main aspects to be taken into account at *Environmental Remediation Projects*.

Targeted audience

- ~ The targeted audience of EURSSEM is all stakeholders e.g. problem holders, problem solvers or stakeholders defined by; e.g. public (may be laypersons), specialists, regulators, etc.

EURSSEM; Introduction, background

Why has EURSSEM been developed?

- ~ Closing of nuclear facilities in the European Union;
- ~ Favorable and most supported option: bringing nuclear sites back to their original state;
- ~ Appliance of MARSSIM in the European Community for characterization of sites;
- ~ Development of an enlarged European manual / guideline for ER-projects;
- ~ Focusing on exchange of information and experiences.

EURSSEM; Introduction, background

Who has been involved?

- ~ Coordination Network on Decommissioning (CND) a 6th EC Framework project.
Organization:
 - ~ Steering Committee, contractors (11 companies from 8 countries)
 - ~ Associated members, including some regulatory bodies (about 40 companies from 15 countries)

- ~ Impediments: Organization, funding, no direct benefits, no clear view of the timescale on having beneficial opportunities.

EURSSEM; Introduction, background

Lessons learned

- ~ Companies / institutes are willing to invest and to share knowledge and experiences.
- ~ However, they want to have in return at least the opportunity to learn or to receive in return, what they think / feel, is an equivalent amount of new knowledge or experiences in comparison with what they have shared, and this in a reasonable time scale.

EURSSEM; Introduction, background

What were the starting points and motivation to apply?

- ~ The manual is written from a service point of view. Thus free of names/pointers to commercial organizations, governmental regulations, etc.;
- ~ Leading strategies, leading practical option(s), etc. all strategies, all options no judging;
- ~ Applicable for all stakeholders involved in ER;
 - ~ Balancing guidance between “*concrete and layperson and detail*”;
 - ~ The guidance has to be consistent.

EURSSEM; First version

When was the first version available?

- ~ This first version was available at 1 July 2009 as a conventional document. This version was reported to the European Commission (deliverable of the 6th EC Framework Project “Coordination Network on Decommissioning”).

EURSSEM; EURSSEM Initiative/Network

EURSSEM Initiative/Network

Defined aims of this Initiative/Network:

- ~ Sharing knowledge and experiences;
- ~ Creating a direct benefit for participants;
- ~ Creating opportunities for bringing together “problem holders” and “problem solvers”;
- ~ Assisting in minimizing in missing an opportunity for “problem holders” as well as for “problem solvers”.

Important is that the impediments that prevented that the Coordination Network on Decommissioning become a successful Network are minimized (lessons learned).

EURSSEM; EURSSEM Initiative/Network

EURSSEM Initiative/Network

Workout of the Initiative:

- ~ Transfer of the conventional EURSSEM document to a wiki like website with additional features;
- ~ Available for all stakeholders of a ER-project (no restrictions);
- ~ Add web features were “problem holders” can meet “problem solvers”;
- ~ Allowing stakeholders, e.g. scientists, companies, regulators to propose updates, modifications, new topics, adding references, etc. and acknowledge their effort.

EURSSEM; Status EURSSEM Initiative/Network



Status EURSSEM Initiative/Network

- ~ Getting the approval of the EC to start directly at 1 July 2009, before the official acceptance of the deliverable;
- ~ Building and testing the website, including web features where problem holders can meet problem solvers;
- ~ Web features; where “stakeholders” can make / add proposals for updates, modifications, new topics, adding references, etc.;
- ~ > 80 % of the conventional document has been transferred and placed at the web site.

EURSSEM provides information, guidance, a Q&A forum and a marketplace to assist problem holders in their Environmental Remediation program

The Environmental Radiation Survey and Site Execution Manual (EURSSEM) provides information and guidance on strategy, planning, stakeholder involvement, conducting, evaluating and documenting radiological environmental and facility (surface) surveys based on best practices for demonstrating compliance with dose or risk-based regulations or standards, remediation, reuse, short-term and long-term stewardship on radioactively contaminated and potentially radioactively contaminated sites and/or groundwater.

News: [Waste Management Conference 2010, Phoenix \(Arizona\)](#)

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[The Co-ordination Network on Decommissioning of Nuclear Installations \(CND\)](#)



[The EU's Sixth Framework Programme for Research and Technological Development \(FP6\)](#)



IAEA
International Atomic Energy Agency

[EURSSEM is a Partner to the IAEA EnviroNet Network](#)

EURSSEM Manual

The Environmental Radiation Survey and Site Execution Manual (EURSSEM) provides information and guidance on strategy, planning, stakeholder involvement, conducting, evaluating and documenting radiological environmental and facility surface surveys based on best practices for demonstrating compliance with dose or risk based regulations or standards, remediation, reuse, short term and long term stewardship on radioactively contaminated and potentially radioactively contaminated sites and/or groundwater. Chief editors are Leo van Velzen (Netherlands) and Lucien Teunckens (Switzerland).

Chapters

1 Introduction to EURSSEM

This section of the "Environmental Radiation Survey and Site Execution Manual" – EURSSEM¹ – deals with the background and drivers to establish this guidance, the purpose and scope of EURSSEM and the approach for developing of a consistent approach and guidance to conduct all actions at radioactively contaminated and potentially radioactively contaminated sites and/or groundwater up to their release for restricted or unrestricted reuse.

¹ The acronym "EURSSEM" was first standing for the abbreviation "European Radiation Survey and Site Execution Manual". The term "European" was taken into account to acknowledge the European Commission for their support to develop the first version of this manual. However, contributing to the IAEA Network ENVIRONET, institutes, organizations, persons, etc. outside Europe showed also a great interest in the content of EURSSEM and in the applicability for their Environmental Remediation Projects. Therefore it was decided to keep the acronym "EURSSEM", but change the full name of the document into "Environmental Radiation Survey and Site Execution Manual January 2010".

- [1.1 Background](#) **UPDATED**
- [1.2 Purpose and scope of EURSSEM](#)
- [1.3 The EURSSEM approach](#)
- [1.4 Structure of the manual](#) **UPDATED**
- [1.5 Use of the manual](#)

2 Development of a strategy, implementation and execution program to remediate radioactively contaminated sites

The development of a strategy, implementation and execution of a programme to remediate radioactively contaminated sites needs a sound knowledge of the necessary plans and topics involved in each of these plans.

The plans, that are dealt with in this section, are in the order, which are according to the authors and define the best way to develop these plans. It is evident that each environmental remediation program is unique and the executors of this program have to decide by themselves if this order suits their program. Further, each plan is worked out in EURSSEM in a large detail and also how the executors have to decide by themselves if they should develop their plans up to the same detail.

- [2.1 General objectives](#)
- [2.1.1 Principle 1: Protection of people and the environment](#)
- [2.1.2 Principle 2: Stakeholder involvement](#)
- [2.1.3 Principle 3: Minimizing the preferred site management option](#)
- [2.1.4 Principle 4: Immediate action](#)
- [2.1.5 Principle 5: Archive for Future Reference](#)
- [2.2 Designing a remediation program for radiological contaminated sites](#)
- [2.2.1 Major steps in a remediation program](#)
- [2.2.2 Initial decision making](#)
- [2.2.3 Basic considerations about planning for remediation](#)
- [2.2.4 Practical implementation of the management and selection of remedial actions](#)
- [2.3 Stakeholder involvement](#)

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Search

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Status EURSSEM Initiative/Network

Impediments for (new) members / participants are minimized by:

- ~ The direct availability of the EURSSEM manual;
- ~ Web features (already present):
 - ~ To be automatically informed about updates;
 - ~ To ask and to respond on questions;
 - ~ To share knowledge and experiences by making proposals for updates;
 - ~ To present information at the EURSSEM website on which ER topics assistance can be provided to solve a problem.

EURSSEM; EURSSEM Initiative/Network



EURSSEM Initiative/Network
will support and work in close cooperation
with the IAEA ENVIRONET Network

Nuclear Research and consultancy Group



Thank you for your attention.

