



**Strål
säkerhets
myndigheten**

Swedish Radiation Safety Authority

Aarhus Convention & Nuclear (ACN)

European Roundtable on information and public participation in the field of Radioactive Waste Management (RWM), 13-15 January, 2021

**Second session;
National feedbacks on recent public engagement processes
along RWM – Sweden Round Table**

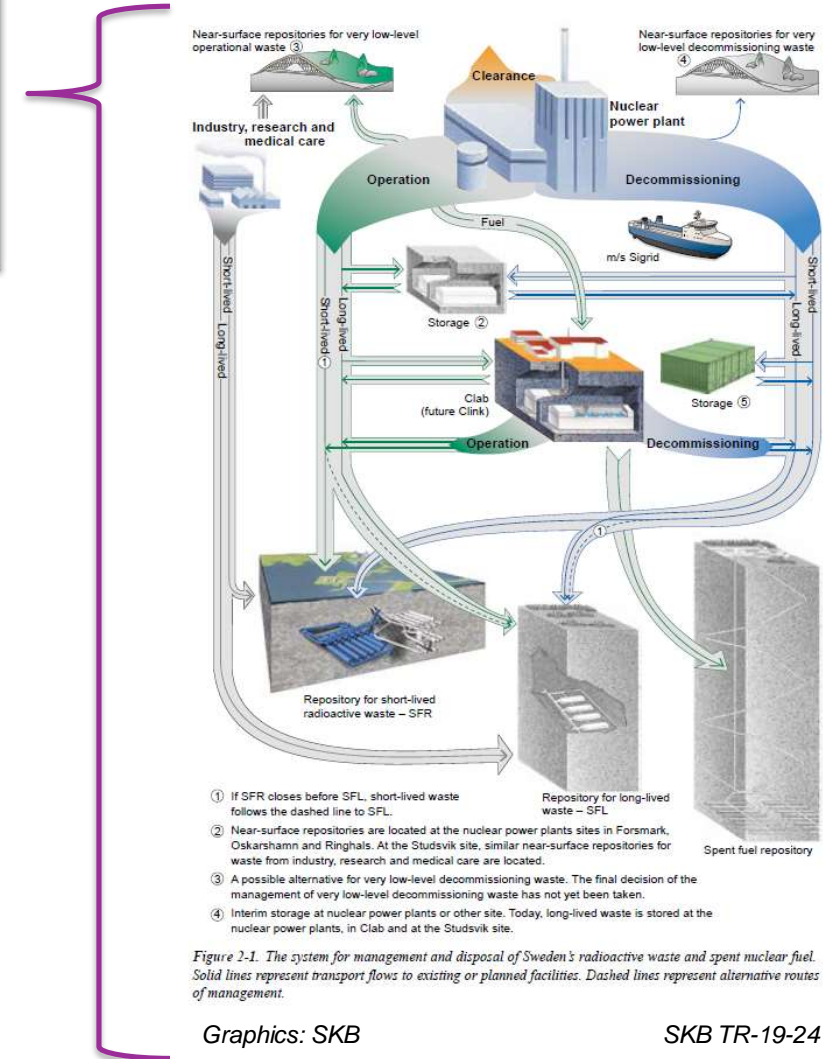
Mr Bengt Hedberg
Swedish Radiation Safety Authority (SSM)



SETTING THE SCENE

Basic prerequisites

- **A nuclear reactor licensee is by law required**
 - To manage spent nuclear fuel and nuclear waste from operation
 - To decommission and dismantle the reactor and associated facilities and manage the decommissioning waste
 - To perform necessary research and development
 - To, every 3 years, jointly with other reactor licensees, submit an updated program for necessary research and development
- **Nuclear reactor licensees decided early on to cooperate through joint company SKB*) to implement**
 - Centralised interim storage facility for spent nuclear fuel, Clab
 - Encapsulation plant for spent nuclear fuel (Ink)
 - Centralised disposal facility for spent nuclear fuel
 - Centralised disposal facility for long-lived waste, SFL
 - Centralised disposal facility or short-lived waste, SFR
 - Transport arrangements including ship MS Sigrid



*) Swedish Nuclear Fuel and Waste Management Company



SETTING THE SCENE ... (cont'd)

Ongoing licensing processes

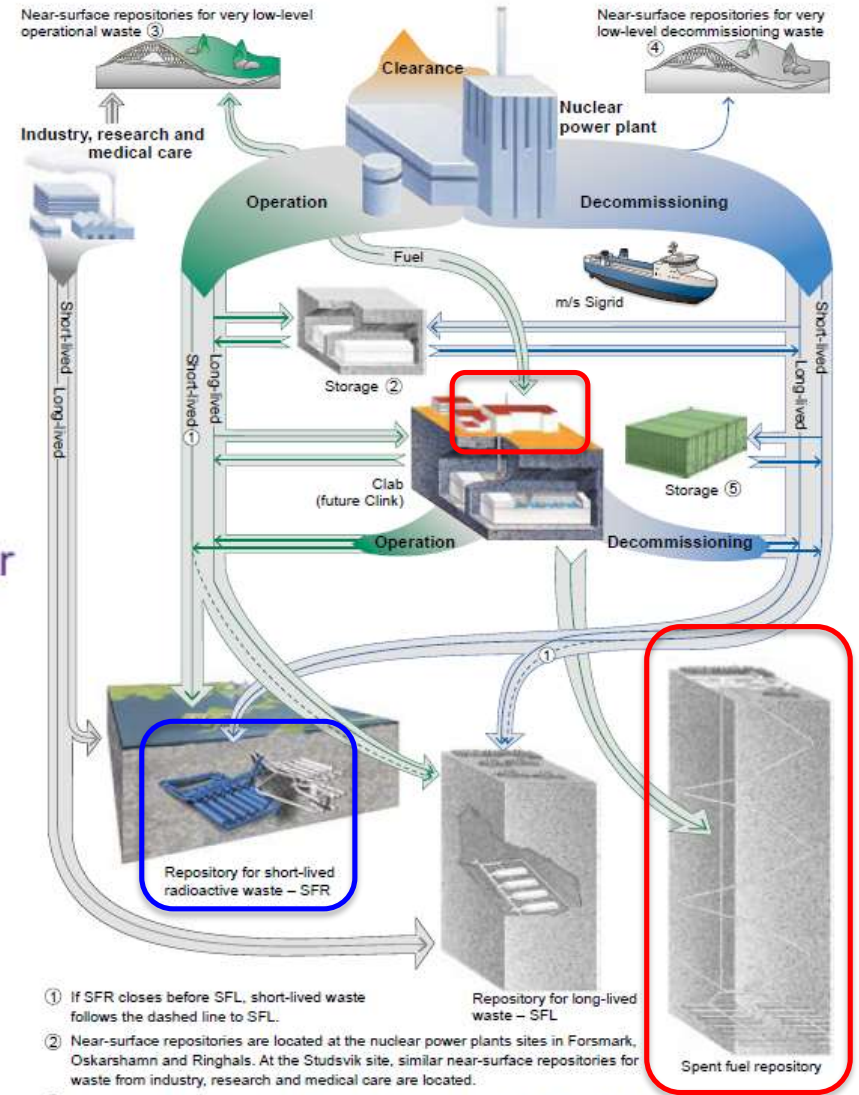
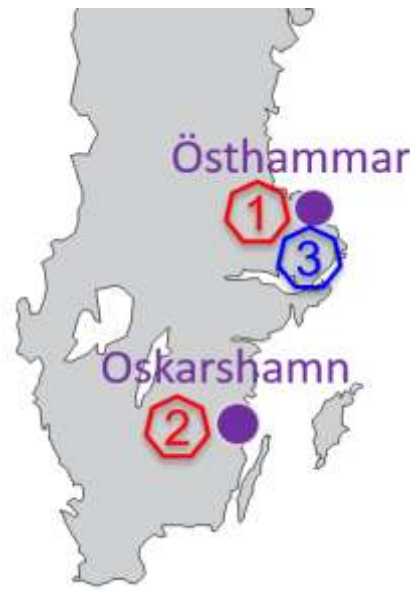
• Management of spent nuclear fuel (KBS-3-system)

- Spent fuel repository, Östhammar Municipality 1

- Encapsulation plant (Ink) Oskarshamn Municipality, adjacent to existing centralised facility for interim storage of spent fuel (Clab), to become an integrated facility (Clink) operating under on license 2

• Extension of existing repository SFR

- Licensed for short-lived operational waste
- License application to allow for also disposal of decommissioning waste 3



- ① If SFR closes before SFL, short-lived waste follows the dashed line to SFL.
- ② Near-surface repositories are located at the nuclear power plants sites in Forsmark, Oskarshamn and Ringhals. At the Studsvik site, similar near-surface repositories for waste from industry, research and medical care are located.
- ③ A possible alternative for very low-level decommissioning waste. The final decision of the management of very low-level decommissioning waste has not yet been taken.
- ④ Interim storage at nuclear power plants or other site. Today, long-lived waste is stored at the nuclear power plants, in Clab and at the Studsvik site.

Figure 2-1. The system for management and disposal of Sweden's radioactive waste and spent nuclear fuel. Solid lines represent transport flows to existing or planned facilities. Dashed lines represent alternative routes of management.



PRINCIPLE PROVISIONS FOR PUBLIC PARTICIPATION

- **Public's right of access to information** from public offices since 1766 ...
- **Referral of reactor owners' RD&D program** every 3rd year to a broad range of stakeholders
 - Universities, governmental institutions, municipalities, NGOs, members of Civil society
- **Environmental Impact Assessment consultations** as a mandatory element feeding into the license application under the Environmental Code
 - A summary report providing an account of the consultation process and of discussions that have taken place
- **Licensing under the Environmental Code** open for the public and stakeholder organisations
 - Both written comments and participation at Land and Environment Court hearings
- **Municipalities' right to veto** Government licensing decision
 - There is a formal/legal possibility for the Government to overrule a veto if justified
- **Provisions for financial support** to municipalities and NGOs



PRINCIPLE PROCESS FOR LICENSING NUCLEAR FACILITIES

- **Parallel and coordinated processes**

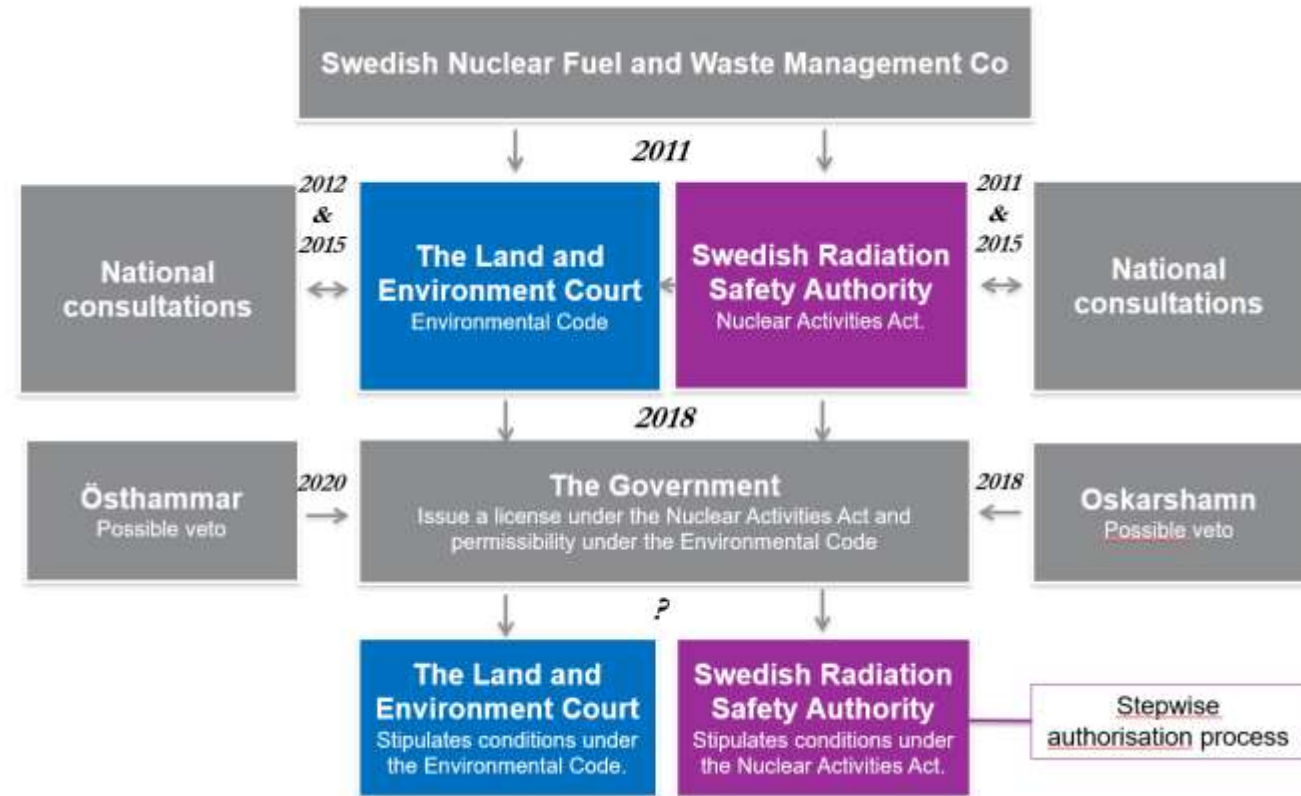
- Environmental Code (“Aarhus Convention”)
- Act on Nuclear Activities
- All requirements verified in licensing process

- **Current status**

- SSM recommended the Government to grant a license under the Act on Nuclear Activities
- Environmental Court recommended Government to grant permissibility provided supplementary analyses on copper corrosion
 - SKB has provided supplements
 - SSM has reviewed and concluded that supplements are satisfactory
- The Government has not presented a time-plan for their decisions

- **Continued process**

- Stepwise authorisation process based on specific hold-points to verify specifications and assumptions during detailed design, construction and operation





PUBLIC PARTICIPATION ...

- **The implementer / Swedish Nuclear Fuel and Waste Management Co, SKB**
 - Pre-licensing dialogue and consultation during site selection and investigation – based on principle of voluntary participation
 - Local offices in candidate municipalities and open houses
 - School projects



Pictures: Source SKB



PUBLIC PARTICIPATION ... (cont'd)

- **Östhammar and Oskarshamn municipalities**
 - State funding since early 90's
 - Local competence building
 - Local review-groups
 - Information and dialogue within municipalities
 - Well established co-operation between these municipalities



Source: Östhammar municipality



PUBLIC PARTICIPATION ... (cont'd)

- **Swedish Radiation Safety Authority, SSM**
 - Consultation referrals
 - Publication of review findings
 - Dialogue with stakeholders
- **Swedish National Council for Nuclear Waste**
 - Advisory body to the Government
 - e.g. independent review of RD&D-program
 - 11 members with a broad scientific knowledge in natural science, technology, the social sciences and the humanities
 - Seminars, publications on specific issues





PUBLIC PARTICIPATION ... (cont'd)

- **NGO's**

- The provisions in the Aarhus convention implemented in Swedish framework
- State funding for participation since 2005
 - Initially limited to participation in pre-scribed pre-license consultation under the Environmental Code
 - Alternative arrangements for funding thereafter
- Have taken part in a multitude of consultation meetings and other meetings
- Raised many concerns
- International cooperation



The Swedish Environmental
Movement's Nuclear Waste
Secretariat



The Swedish NGO Office for
Nuclear Waste Review



Successful dialogue - prerequisites

- Clear definitions of roles and responsibilities
- Ways to finance participation
- Time!





Successful dialogue - challenges

- Keeping up a good dialogue while maintaining integrity
- Communicating risks
- Taking into account all different viewpoints in a way that preserves trust
- Keeping up interest in the municipalities
- Competence management - loss of attractiveness for working in the nuclear sector from both implementers and regulators perspective



Successful dialogue - indicators

- A majority of the general public (Civil Society) in Östhammar and Oskarshamn municipalities have no objection to host a repository for spent fuel and an encapsulation plant
- Both municipalities have decided to accept to host the facilities even before being offered the option to veto a Government decision



Thank you!