Control of transport safety in France
ASN: Missions and Values

On behalf of the State, ASN regulates nuclear safety and radiation protection in order to protect workers, patients, the public and the environment in France against the risks related to nuclear activities. ASN contributes to informing the public.

Values:
• Competence
• Transparency
• Independence – from licensees and from government
• Rigour
ASN in Figures

- **A State Authority (does not belong to a Ministry)**
  - Reports directly to the Parliament
  - Independent from government

- **A board of 5 Commissioners** (Non-renewable 6 year term), including a President

- **Staff:** ~ 480 industrial and medical engineers, physicians and pharmacists, human scientists as well as legal and administrative specialists.
  - About 50% in the Montrouge Headquarters
  - About 50% in the 11 regional offices

- **Budget: 80 M€** (2015)
Activities monitored by ASN

- **Electricity production**
  - Nuclear power plants and facilities for converting, enriching, fabricating, processing and recycling nuclear fuel

- **Waste and decommissioned facilities**
  - Facilities for waste storage and disposal, and former nuclear facilities being decommissioned

- **Research activities**
  - Research reactors

- **Other industry activities**
  - Activities in non-nuclear industry, e.g. industrial irradiation or radiography

- **Medical uses**
  - Radionuclides or electric devices used to generate ionizing radiations for therapy or medical diagnostics

- **Transport of radioactive materials**
Institute for Radiological Protection and Nuclear Safety

- **IRSN** is ASN’s Technical support organization.
  - under the joint authority of the Ministries of Defense, the Environment, Industry, Research, and Health

- IRSN has missions of expertise and research in the following areas:
  - nuclear safety
  - safety of transport of radioactive materials
  - protection of man and the environment against ionizing radiation
  - protection and control of nuclear materials
  - protection of nuclear facilities and transport of radioactive materials against malicious acts.

- IRSN employs **around 1800 people**.
NPPs:
- Standardized fleet of 58 (+1) PWR
- 1 operator (EDF)
- 75% of the French electricity production
Transport flow in France

- Transport of RAM for civil use in France: **980 000 packages a year are carried in 770 000 shipments.**

![Bar chart showing types of packages carried in France]

- **Non-nuclear industry:** 57%
- **Medical:** 31%
- **Nuclear industry:** 12%

![Bar chart showing types of packages carried in France]

- **Excepted:** 58%
- **IP:** 8%
- **Type A:** 32%
- **Type B and fissile:** 2%
Transport regulations in France

- France have signed ADR, ADN, RID, IMDG Code and TI of ICAO.
- ADR, ADN and RID are made mandatory by the order on terrestrial dangerous transport of the 29th May 2009

- Obligation of registration for the companies performing the following transport operations:
  - carriage of radioactive material packages;
  - loading or unloading of these packages;
  - handling of these packages, after loading or before unloading; when they take place, at least partially, on the French territory.

- Companies performing transport by sea or air are concerned if the carriage includes a stop in a French port or airport.
ASN role in transport

- **Participate in the regulation elaboration**, on national and international level
  - Member of TRANSSC
  - ASN can make formal decisions that have a regulatory value
  - ASN publishes guidance:
    - the French PDSR guide,
    - a guide on emergency plans,
    - a guide on conception of packages that do not require authority approval,
    - a guide on operational recommendations on stowage,
    - etc.

- **Deliver the approvals** required by the regulation. In the case of package approval, **IRSN provides technical support** to assess the safety analysis report.
ASN role in transport

- **Control the transport safety**
  - Perform inspection at every stage of the transport: package manufacture, maintenance, consignment, carriage, loading, in-transit storage, etc.
  - Some inspections are conducted together with foreign authorities (in 2016, 1 with Belgium and 1 with Switzerland)
  - Receive and analyse the declaration that have to be made for signficicate events
  - In 2016, ASN has registered 56 events so far, 53 ranked at level 0 on the INES scale and 3 ranked at level 1

- **Provide assistance to publics authorities in the case of a transport emergency**, with IRSN help
  - ASN and IRSN participate to a national emergency exercise on the theme of transport once a year, along with the publics authorities and a carrier.
Inform the public:

- ASN publishes the letters sent to the industrial operators after ASN inspections.
- ASN publishes explanation notes on event ranked on level 1 or higher on the INES scale.
- A public consultation is organized on ASN decisions that can impact the environment (e.g. package approvals).
- ASN website (www.asn.fr) displays information on subjects of interest.
- Once a year, ASN publishes a report on the state of nuclear safety and radiation protection in France. Chapter 11 of this report is about transport of RAM.