

COMPETENCE  
COMPETENCE

INDEPENDENCE  
INDEPENDENCE



STRATEGIC PLAN OF THE FRENCH  
NUCLEAR SAFETY AUTHORITY 2005-2007

MAKING STRIDES IN NUCLEAR SAFETY AND RADIATION PROTECTION

TRANSPARENCY  
TRANSPARENCY

STRINGENCY  
STRINGENCY



The Nuclear Safety Authority (ASN, [www.asn.gouv.fr](http://www.asn.gouv.fr)) comprises the DGSNR (General Management of Nuclear Safety and Radiation Protection), under the authority of ministers for health, the environment and industry, and the various State departments on which it depends for control of nuclear safety and radiation protection; specifically DRIRE, DRASS and DDASS.

## OUR OBJECTIVE

The ASN is a public body that controls nuclear safety and radiation protection for the protection of workers, patients, the general public and the environment against hazards and nuisances related to nuclear activity, and more broadly, to ionizing radiation. This body also helps keep citizens informed in these areas.

## OUR VALUES

The ASN, the men and women who work for it, perform their duties in full observance of four essential values:

Competence  
Independence  
Stringency  
Transparency

## OUR AMBITION

The facilities, activities and situations portfolio under the authority of the ASN is one of the world's largest and most diversified. It includes a standardised fleet of reactors which produce most of France's electricity, all fuel cycle facilities, research facilities and plants which are practically unique in the world. The ASN also controls thousands of facilities and activities where ionizing radiation sources are used for medical, industrial or research purposes. Lastly, the ASN controls the transport of radioactive materials, with several hundred thousand shipments made annually throughout France.

Furthermore, the ASN strives to develop a broader view of its scope of control, considering material aspects as well as organisational and human factors. It monitors the impact of activities on people and the environment and ensures clear, exhaustive and safe management of radioactive waste.

The aim of the ASN is to ensure efficient, relevant and transparent control of nuclear activities always with the aim of ongoing progress. The ASN is thus responsible for managing issues of major stake for citizens and the environment. At national level, it is responsible for protecting and informing citizens. At international level, it must act as one of the major nuclear safety authorities, taking care to cooperate with its peers and ensure that nuclear safety and radiation protection principles are observed throughout the world.

The ASN's ambition is to ensure effective, legitimate and credible nuclear control which is recognised by citizens and constitutes a international reference.



## OUR STRATEGY

### OUR ACTIVITIES

The ASN's control activities encompass the following seven areas:

- 1 - development of general regulations for nuclear safety and radiation protection;
- 2 - management of individual authorisation requests and receipt of declarations;
- 3 - inspection of nuclear activities;
- 4 - organisation of radiological surveillance of individuals and of the environment;
- 5 - preparation for management of emergency situations and implementation if necessary;
- 6 - contribution to public information on nuclear safety and radiation protection;
- 7 - determination of the French position within international community.

### OUR AREAS OF FOCUS

To achieve its ambition, the ASN has determined eight strategic focus areas in four fields: our organisation and culture, our resources for action, our legitimacy and credibility, our international presence and actions.

The above-mentioned focus areas do not represent the entire range of the ASN's projects for the period 2005-2007 but constitute the most important ones for achieving our goals.

### OUR ORGANISATION AND CULTURE

#### **Continue to develop an ASN culture**

One of the ASN's strengths is the diversity of its projects and profiles of its employees. While valuing this diversity, the ASN must strive to develop a common culture geared towards its objective of protecting citizens and the environment.

In terms of operations, the ASN must continue to extend the development of nuclear safety and radiation protection control to the whole of France, achieving this through stronger ties with the other relevant administrations (DSND, DPPR, DRT, DGS, DHOS, DARQSI, etc.) and with State departments in the regions (mainly the DRIRE, but also the DRASS and DDAS).

#### **Improve the ASN's performance**

The ASN must ensure it is efficient and effective; it must monitor the quality of its work, the accuracy of its decision-making and the follow-up of its activities. It must develop and maintain a working environment that is conducive to controlling deadlines and decisions. In particular, it needs to develop a management system that makes it permanently responsible for its actions.



The ASN has developed a shared information system to be deployed further and extended to small-scale nuclear activity.

The ASN must also incorporate new budgetary and accounting practices, specifically those relating to the LOLF (French law on finance laws). It needs to consolidate its employment management process and its skill and career development process.

### **Make our collaboration with the IRSN more professional**

The quality and pertinence of the technical support provided to the ASN by the IRSN (Radiation protection and nuclear safety institute) are essential factors in its control of nuclear safety and radiation protection. Thus the ASN must consolidate its collaboration with the IRSN and make it more professional, as an intelligent client. Specifically, the ASN, with the support of the IRSN, must take more predictable individual decisions within controlled deadlines.

## **OUR RESOURCES FOR ACTION**

### **Develop our work tools**

The ASN must improve national regulations on nuclear safety and radiation protection with the aim of efficiency and simplicity. It must determine legal and regulatory guidelines for decision-making, official warnings and sanctions and implement them.

The ASN needs to change its authorisation and declaration procedures to apply the principle of the prime responsibility of operators. It must also continue to develop control procedures for small-scale nuclear activity and transport of radioactive materials and determine the role and terms of intervention of approved bodies.

In addition to the regulatory framework, the ASN must improve its ability to create and formulate a structured appraisal of operator performance in terms of nuclear safety and radiation protection.

The ASN must manage the implementation then the operation of a reliable, pluralistic and transparent national radioactive measuring system and help introduce the tools necessary for surveillance of patient exposure to ionizing radiation and exposure of individuals to radon.

It needs to work on crisis organisation and particularly emergency plans for all situations with a radiological impact as well as help develop a policy then an organisation for post-accident management.

Lastly, it must develop and organise its R&D monitoring system for nuclear safety and radiation protection.

### **Anticipate and develop our skills in new and high-stake areas**

The ASN must ensure that it maintains and develops its skills and anticipates the emergence of new challenges.



In the coming years, the ASN must make particular efforts to strengthen its knowledge, its appraisal methods and its skills in the following areas:

- the impact of organisational and human factors on nuclear safety and radiation protection
- the priority given by operators to nuclear safety and radiation protection in a fiercely competitive climate
- facilities undergoing creation or construction, particularly the EPR, the Georges Besse II facility and ITER
- feedback, aging and dismantling of facilities
- implementation of safe, consistent and clear management channels for all types of radioactive waste
- limitation and optimisation of radiological exposure of workers
- management of radon-related risks in public places, housing and the workplace
- knowledge of doses administered to patients and justification of these procedures in order to optimise doses

## OUR LEGITIMACY AND CREDIBILITY

### Build up our reputation

Recognition of the ASN is essential to its ability to act effectively. It must thus continue with its public information initiatives and its efforts to achieve transparency. It needs to communicate on its essence in order to clarify its role in the chain of responsibility as well as on its action.

The ASN must strive to develop a radiation protection culture in the professional field of small-scale nuclear activity. In medicine it must first support application of regulations for suitable initiatives, particularly information and awareness-raising. Specifically it must develop its relationships with trade unions as well as professional bodies and societies.

The ASN must pursue and step up its efforts in terms of information to the general public and to specific targets (residents living near facilities, professionals, patients, elected officials, trade unions, etc.). It must also continue and strengthen its information initiatives in the regions, in conjunction with the DRIRE directors.

## OUR INTERNATIONAL PRESENCE AND ACTION

### Initiate harmonisation of nuclear safety practices

The harmonisation of supervision practices is a legitimate expectation for citizens. Due to the scope of its control, the ASN considers itself responsible for participating in and leading multilateral efforts to harmonise nuclear safety and radiation protection control practices. The ASN must contribute to these efforts, whether they represent initiatives from states or international organisations (IAEA, NEA, European Commission, etc.).

### Become an international reference

At international level, the ASN must act as one of the major nuclear safety authorities, taking care to cooperate with its peers and ensure that nuclear safety and radiation protection prin-



principles are observed throughout the world. In order to become a reference the ASN must focus on the following:

- assuming its role in international radiation protection regulations
- promoting its organisation and practices in terms of nuclear safety and radiation protection
- submitting to external appraisals such as the one provided by the IRRT audit performed by peers under the authority of the IAEA.

## WE REPORT ON OUR ACTIONS

Since its inception, the ASN has reported on its activities, mainly through its publications ([www.asn.gouv.fr](http://www.asn.gouv.fr), the bi-monthly "Contrôle" magazine, annual report on nuclear safety and radiation protection in France).

Qualitative indicators are useful tools for evaluating our action and efficiency and implementing our strategies. They are no substitute for a qualitative analysis but they are a welcome addition.

In the next portion of this document we will present direct indicators such as those that, according to the OECD, relate to the effectiveness and efficiency of nuclear regulations, depending first on the ASN. These will be followed by indirect indicators which also depend on licensees. Indeed, in accordance with France's international commitments, in particular regarding the Convention on nuclear safety, and with the international standards established by the IAEA, the ASN's responsibility in terms of nuclear safety and radiation protection control is a part of a chain of responsibility which includes that of the operator, which takes prime responsibility for the high-risk activities it performs.

## OUR CONTEXT

The table below shows the spectrum of nuclear activities controlled by the ASN:

<b>Civilian basis nuclear facilities (BNF):</b>	
- nuclear power reactors	58 out of 19 sites
- fuel cycle facilities	16 out of 6 sites
- research facilities	61 out of 4 sites
- facilities in the dismantling process	10 out of 7 sites
- waste disposal facilities	2 out of 2 sites
<b>Small-scale nuclear activities:</b>	
- medical activity:	
• authorised, such as radiotherapy	1,500
• declared, such as radiology	49,000
- industrial and research activities	5,000
<b>Packages of radioactive materials transported in 2004</b>	<b>300,000</b>

Source : ASN

In addition to nuclear activities, please note that radiation protection also involves situations where natural radioactivity is strengthened, often due to the presence of radon, particularly in housing, public places and workplaces in the districts classified as top-priority.

## OUR ACTIVITY

For information purposes, the table below shows activity indicators. We have set target values or ranges where relevant:

Activities during year n	Unit	2003	2004	2005	Target 2006	Target 2007
<b>General regulatory laws and orders published</b>	number	7	14	15	-	-
<b>Authorisations issued in the field:</b>						
- BNFs (water disposal and sampling)	number	6	6	2	-	-
- small-scale nuclear activities	number	1,900	2,100	(*)	-	-
- transport of radioactive materials (TRM)	number	85	100	55	-	-
<b>Inspections (or controls) performed:</b>						
- in the field of BNFs and TRM	number	720	730	730	700	700
- in the field of small-scale nuclear	number	100	200	400	500	750
<b>Emergency drills performed</b>	number	9	10	11	10-12	10-12
<b>Press meetings</b>	number	15	15	15	20	20
<b>Press releases</b>	number	8	9	10	12	15
<b>Community and international initiatives</b>	man. day	1,700	2,000	1,900	2,000	2,000

(\*) In 2005, the management of authorisation procedures was transferred from the DGSNR to the DSNRs. Moreover, the experimentation with budgetary structuring implemented by the LOLF (French law on finance laws) in four DSNRs led to uneven allocation of tasks. Creation of a single indicator has been complex. This indicator, with an order of magnitude comparable to that of 2004, will be announced in 2006, which is the first full tax year for the LOLF.

These actions are not merely occasional but must be sustained initiatives. A high level of nuclear safety and radiation protection can never be permanently acquired and in order to maintain and improve this level, nuclear activity control, both old and new, must be part of a long-term approach.

## OUR INDICATORS

The following two tables give a very partial, simplified view of nuclear safety and radiation protection in France. Although it is impossible to isolate the contribution of public authorities to these indirect indicators, where relevant we have set targets beyond which an in-depth analysis is required, not only of the actions of operators but also of our own actions.



The table below deals with prevention of risks of incidents and accidents. We must stress that we cannot directly deduce the long-term probability of a serious accident occurring using the number of incidents detected and declared in one year in one country.

Number of events declared during year n	2003	2004	2005	Target 2006	Target 2007
Level 1 incidents	148	92	80	-	-
Level 2 incidents	1	1	1	< 5	< 5
Level 3 incidents	0	0	0	≤ 1	≤ 1
Levels 4 to 7 accidents	0	0	0	0	0

Source: ASN, classification on the international scale of nuclear events (INES).  
As of 2005, these criteria include those relating to radiation protection, which will probably lead to an increase in the number of events declared.

The table below deals with limiting exposure of individuals to ionizing radiation. The indicators concerning exposure of patients and exposure to radon in public buildings will be determined and updated as knowledge on exposure improves.

Exposure of individuals during year n	2002	2003	2004	2005	Target 2006	Target 2007
Number of workers exposed to more than 20 mSv during the year (measured)	74	104	51	N.D.	< 120	< 120
Maximum exposure calculated on residents due to a BNF site (µSv/an)	10	10	10	10	< 20	< 20
Patient indicator	In progress					
Public indicator	In progress					

Source : ASN, IRSN database

In addition to the indirect indicators presented above, we have chosen direct indicators to monitor some of the objectives set where this appears relevant. We must remember that, like most indicators, these indicators may be limited and subjective. If used as objectives without any precautions they could give mixed signals, but if used correctly, they can help us improve efficiency.

Most of the individual authorisation requests submitted by operators require a technical analysis prior to a decision. This analysis is based partly on objective criteria and partly on the views of experts. It may last anywhere from a few hours to a few days depending on the complexity of the issues and any uncertainties and questions they may raise. The ASN must make predictable decisions for operators, particularly in terms of deadlines. The indicators chosen help us evaluate observance of these deadlines.



The ASN has a considerable information policy to allow individuals to make up their minds on nuclear risks and take part in decision-making. Thus all letters sent to operators of BNFs following inspections performed by the ASN are available on its website ([www.asn.gouv.fr](http://www.asn.gouv.fr)). The same applies to the "report on nuclear safety and radioprotection in France" produced each year by the ASN. This policy must be developed further. The indicators chosen help evaluate the impact of this policy on the various targets.

Focus: to make, with the support of the IRSN, more predictable decisions particularly in terms of deadline	units	2004	2005	Target 2006	Target 2007
<b>Indicator: <i>Observing deadlines</i></b>					
Individual orders for year N:					
- published within deadlines	%	40	50	50	60
- published with a delay of less than 30% of the entire period	%	20	30	40	30
ASN decisions for year N:					
- made within deadlines	%	70	75	80	80
- made with a delay of less than 30% of the entire period	%	20	25	20	20

Focus: to continue public information initiatives and develop public consultation	unity	2003	2004	2005	Target 2006	Target 2007
<b>Indicator: <i>Awareness and satisfaction rate</i></b>						
Awareness rate (spontaneous + prompted) among:						
- general public (GP)	%	-	-	16%	16%	18%
- specific public (SP, elected officials, associations, media)	%	-	-	61%	61%	63%
- satisfaction rate of individuals who know the ASN concerning the information it provides to the general public (SP)	%	-	-	22%	22%	25%