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## **Directive 2009/71/Euratom: the losing battle against discrimination and protection of sovereignty**

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**Abstract:** This paper looks at the recently adopted framework for nuclear safety in the European Union (EU) – Directive 2009/71/Euratom, both in terms of its legislative history and of the outcome’s usefulness and characteristics.

**Keywords:** nuclear law; nuclear safety; European Union; Directive 2009/71/Euratom; Nuclear Safety Convention; NSC.

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### **1 Introduction**

This paper builds on previous research on the regulation of nuclear safety at the European Union (EU) level.<sup>1</sup> After that research was published, Council Directive 2009/71/Euratom, of 25 June 2009 (the Nuclear Safety Directive), establishing a Community framework for the nuclear safety of nuclear installations, was adopted.<sup>2</sup>

It is now time to look at the final result of the long discussions that led to the adoption of this directive, and to assess the contribution that such a directive is likely to make to nuclear safety in the EU.

The European Commission called it a “major step for achieving a common legal framework and a strong safety culture in Europe”.<sup>3</sup> The language was well chosen. Any one who followed the discussions that led to this point, especially since the presentation of the Nuclear Package in 2002, knows all too well that this legislation is unlikely to contribute, in itself, to the increase of nuclear safety in the EU. In the battle between the Western nuclear states who wanted to preserve the *status quo*, and the member states who

wanted to see a clear improvement in nuclear safety controls across Europe, the first have clearly come out victorious. There may still be reason to believe that this was a step in the right direction, and more importantly the only step possible at this time. But one goes too far in describing this legislation as an “adequate response” to the need to “guarantee the highest level of nuclear safety” in the EU.<sup>4</sup>

Already controversies are looming as to the precise content of the obligations arising from this directive. As expected, the European Commission has begun to try to squeeze as much as it can from the directive’s vague language. Sooner or later, its interpretation will be raised before the European Court of Justice (ECJ). We have come to expect the ECJ to support the Commission in furthering European integration, but will it really have much room to do so with Directive 2009/71/Euratom?

## 2 Overview

In the previously conducted research,<sup>5</sup> the legislative options for the EU, in this specific discussion, had been summed up as follows (listed from that which contributes the least to that which contributes the most to nuclear safety):

- Option A no intervention
- Option B nonbinding instrument
- Option C directive based on and similar to the Nuclear Safety Convention (NSC) and Joint Convention
- Option D general framework directive based on the NSC and Joint Convention (detailed safety standards to be developed later)
- Option E detailed directive.

Additionally, the scope of the instrument could be limited to commercial nuclear power plants and related facilities (symbolised below by ‘-’) or be wider (‘+’). Finally, it could be backed up merely by reporting provisions, mirroring the existing international mechanisms, (symbolised below by <sup>(1)</sup>) or include some level of supervision by the European Commission (<sup>(2)</sup>).

According to this classification, the evolution of the negotiations of the Nuclear Safety Directive can be summarised as follows:

2003: Initial Commission proposal	<i>D</i> + <sup>(2)</sup>
2003: UK/FIN/SW proposal	<i>B</i>
2004: Revised Commission proposal	<i>C</i> + <sup>(1)</sup>
2004: Result of Council negotiations on Commission proposal	<i>A</i>
2008: French proposal	<i>C</i> <sup>(1)</sup>
2008: New Commission proposal (COM(2008)790final)	<i>D</i> + <sup>(1)</sup>
2009: Final version of directive	<i>C</i> + <sup>(1)</sup>

It should be noted that the final version is significantly watered down in relation to the 2004 revised proposal, even though it belongs to the same category.

The current directive makes for a fascinating case study in EU policy making. It is an example of how negotiations within the EU can sometimes lead to results that are less than what had been achieved at the international level. Indeed, Directive 2009/71/Euratom does not go as far as the substantive obligations on nuclear safety foreseen in the IAEA's NSC, as can be seen in the comparative table in the Appendix.

### **3 Main political issues**

Politically, the negotiation of Directive 2009/71/Euratom has raised several issues that should be highlighted.

The Council of Ministers was divided from the start. As had already occurred in the negotiations of the 2003 Nuclear Package, the Western states with nuclear power plants (excluding Spain and Italy) were vehemently opposed to any significant Community interference in the domain of nuclear safety. It should be kept in mind that the national experts that negotiated the directive came from the nuclear regulatory bodies.

These states constituted a sufficient blocking minority and used this to reject indirect supervision by the Commission,<sup>6</sup> binding legal force to the IAEA Safety Fundamentals and, generally, blocking anything that would increase the number or reach of the obligations they already had under the NSC. Since an EU directive is enforceable by the ECJ, it was important for these states that the directive be even less precise than the convention, so as to allow as little room as possible for expansive interpretation.

On the other hand, the majority of member states, who would have liked to see an actual improvement in nuclear safety, never got organised around that objective. It seemed the Commission was left to fight this battle alone. True, it received the support of the European Parliament, but since the latter had no decision-making powers, this support was little more than symbolical.

An argument which was often invoked, in one form or another, was the need to protect sovereignty. As a result, the EU has arrived at a strange, contradictory juncture. The member states recognise that the principle of subsidiarity requires Community action in nuclear safety, and they have long accepted very detailed Community rules in the field of radiological protection. Even so, sovereignty was successfully invoked to prevent the birth of an actual Community framework for nuclear safety. No one explained why making the IAEA Safety Fundamentals binding, or creating a supranational level of supervision, would endanger national sovereignty. More to the point, no one showed that it would limit sovereignty beyond that which was required by the Community objective of achieving a high level of nuclear safety.

These negotiations also showed the continuing discrimination between old and new member states. To join the EU in 2004 and 2007, the Central and Eastern European member states had to submit to specific nuclear safety requirements laid out by the Commission. Their nuclear installations were inspected and older Soviet models of nuclear power plants had to be closed. In other words, they had to submit to rigorous Community control of nuclear safety. And yet, most of the Western nuclear states continue to be unwilling to accept on their territory the very measure of control that they imposed on the candidate states. It is discriminatory, and it is unjustified.

There is no reason to expect the blocking minority to disappear in the near future. What these negotiations have evidenced is that a fundamental change is required in the decision-making structure under the Euratom agreement. At a time when the European Parliament has become a co-decider in most EU legislation, including in the areas of environmental and radiological protection, it is aberrant for its role in nuclear safety to be reduced to consultation.

This is not to say that, if the European Parliament became a co-decider, this directive would soon be revised and deepened. But, if revisions are to be considered, the negotiation and the debate would look very different. The parliament has already shown, in the proposals it put forward,<sup>7</sup> that it is inclined to carefully balance national sovereignty (*e.g.*, a state's freedom to choose its energy mix) with EU-wide interests and objectives. It also tried to put some more flesh on the bones of the directive, suggesting that certain safety principles be added.

However, such a change would require amendments to the Euratom Treaty. It is well known that, so far, no agreement to allow the reform of that treaty has been possible, as was clearly evident during the discussions of the Constitution and then the Lisbon Treaty.

#### 4 Grounds for annulment

Directive 2009/71/Euratom was adopted under the consultation procedure, which is still applicable within the framework of the Euratom Treaty. The European Parliament was consulted and it issued its opinion on 22 April 2009.

As is settled case law of the ECJ, the consultation procedure:

“represents an essential factor in the institutional balance intended by the Treaty. Although limited, it reflects at Community level the fundamental democratic principle that the peoples should take part in the exercise of power through the intermediary of a representative assembly. Due consultation of the Parliament in the cases provided for by the treaty therefore *constitutes an essential formality, disregard of which means that the measure concerned is void.*”<sup>8</sup>

Furthermore, the court has also clarified that:

“the duty to consult the European Parliament in the course of the legislative procedure, in the cases provided for by the Treaty, includes the requirement that the Parliament be *reconsulted on each occasion when the text finally adopted, viewed as a whole, departs substantially from the text on which the Parliament has already been consulted, except in cases where the amendments essentially correspond to the wishes of the Parliament itself.*”<sup>9</sup>

The directive on which the European Parliament was asked to issue its opinion is not the same as the directive which was finally adopted. The concerns expressed and the specific amendment proposals put forward by the European Parliament leave little doubt that the parliament feels differently about the directive we have today. Whether or not they would still have been in favour of it had they been consulted, the representatives of the European people have been denied their right to express their views on an important piece of legislation. It is my belief that the final text meets the test laid out by the ECJ for the obligation to reconsult the European Parliament.

A directive which binds the member states to the very specific requirements of the IAEA Safety Fundamentals, which includes a list of safety principles and which expressly foresees future proposals to further develop the framework being created, is substantially different from a directive which does none of those things; a directive which includes only very broad and vague obligations, falling short even of the existing binding international regime; a directive which makes no significant contribution to the improvement of nuclear safety in the EU.

There seem to be clear grounds for an application for annulment of this directive. A different issue is whether there is any interest in filing such an application. After all, even if the ECJ were to annul the directive, this would merely delay the implementation of a regime which, ultimately, is the only one possible at this time, and whose improvement the European Parliament cannot force.

I see only one possible advantage in such a course of action. That would be to draw some media attention to the issue. This, in itself, may be beneficial. The directive was negotiated without any public scrutiny. Not even when it was adopted did it receive media attention. One may argue that if citizens were made aware of the shocking aspects of the negotiations, some governments could receive criticism at home for standing in the way of a concrete improvement in nuclear safety. Long shot though it may be, it might still be worth a try.

## **5 Substance of Directive 2009/71/Euratom**

The content of this directive is further explained in the comparative table in the Appendix. This section merely aims at providing a general synthesis, while focusing on the most important issues, including the scope for future interpretation of the letter of the law and the foreseeable impact of the obligations.

In terms of scope, Directive 2009/71/Euratom goes beyond international law. By encompassing nuclear facilities other than those with nuclear reactors, and by including research reactors, the directive applies to a greater number of installations than the ones that have been covered so far under international law. The practical relevance of this wider scope, however, is dependent on the actual substantive obligations imposed by the directive.

The Nuclear Safety Directive essentially reproduces the content of the NSC when it comes to the existence of a regulatory authority (or system of authorities), as it does for a few other obligations and principles (principles of priority to safety and prime responsibility to the licence holder, obligations of inspection and enforcement and availability of necessary financial and human resources).

There are seemingly only two substantive issues on which the directive may have gone further than existing international law.

The first is that of transparency. A provision was included to deal specifically with information to workers and the public, under normal circumstances (meaning, outside the context of prevention or reaction to emergencies). The provision is applicable to both operators and nuclear regulators. However, the inexactness of the obligation and the wording (information should be 'made available') renders it uncertain whether this provision will have a significant impact. It certainly seems difficult to imagine infringement proceedings based on this article. Apparently, all a member state has to

do to comply with it is to include in its legislation the requirement that operators make information on nuclear safety available to workers and the public (without further specification) and to create some form of regulator website. There does not seem to be enough room to criticise a member state for the precise nature of the information that is being made available, much less for the actual success in getting this information to the public or to workers.

The second positive innovation is an explicit requirement for the conduct of periodical self-assessments (every ten years), followed by an international peer review. This is a reference to the International Peer Review System, including the so-called IRRS missions organised by the IAEA. Such missions generally require significant effort by the target states. They go into great detail and usually lead to improvements in the national regulatory framework. But they are not legally binding in themselves, relying on the persuasive power of peer pressure and public perception that is typical of international law, not of Community law.

This is a very precise obligation, which can easily lead to infringement proceedings. What is less certain is if it will be effective in actually leading to an improvement in national nuclear safety laws. It should be noted that this article does not require the amendment of national law in accordance with the outcome of the self-assessment and peer review. Still, this provision may prove to be the directive's greatest contribution to nuclear safety, for reasons that will be discussed below.

The most striking feature of the Nuclear Safety Directive is not to be found in what it says, but rather in what it omits. The core substantive obligations foreseen in the NSC are missing. The directive requires national legislation on nuclear safety, guaranteed with a national system of inspection and enforcement. Operators must be made to comply with national safety requirements and to demonstrate that compliance. They must implement management systems which give due priority to nuclear safety and must regularly assess and verify nuclear safety, and continuously improve it (as far as reasonably achievable).

But none of this comes close to defining anything resembling Community substantive rules on nuclear safety. As expected, the provisions of the NSC in that respect are quite broad and ambiguous. But the directive does not even go as far as that. At the end of the day, all this directive does is to require member states to create and supervise a national system of nuclear safety, without adding any significant specification or clarification (beyond the few that have been mentioned above).

It should be kept in mind that the original proposal was to give binding force to the IAEA Safety Fundamentals. This would have meant that a fairly detailed body of substantive nuclear safety provisions would have been made binding in the EU. It would have been a clear improvement to the legal framework for nuclear safety. But that was deleted from the final draft. Having said this, it is with surprise that one reads statements such as follows:

“The EU has thus become the first major regional nuclear actor to provide binding legal force to the main international nuclear safety standards, namely the Safety Fundamentals established by the International Atomic Energy Agency (IAEA) and the obligations resulting from the Convention on Nuclear Safety.”<sup>10</sup>

Such statements suggest that the European Commission will try to sustain that, despite the letter of the directive, and despite the history of its negotiation, it should still be interpreted as rendering the safety fundamentals binding. If it plans to do so, it

will surely face a tough challenge before the ECJ. The only reference to the safety fundamentals in the directive is found in its preamble, which merely states that these should be assessed by the member states, “where appropriate”, and that they “should constitute a framework of practices that Member States should have regard to when implementing this Directive”.<sup>11</sup>

Not only have the substantive obligations been eliminated, but any references to further legislative development of this skeleton of a legal framework were also deleted. This serves more to show the dominant mindset of the Council, than to have a legal effect, since no such references are required for there to be further developments. The Commission can always suggest new legislation, and it will be up to the Council to approve or reject it.

Other glaring omissions from this directive are the issues of decommissioning, waste and spent fuel. In the original Nuclear Package of 2003, there was a separate directive dealing with the management of nuclear waste and spent fuel, and decommissioning was addressed in both directives. It tried to deal with extremely sensitive and important problems. This time around, the Council chose to steer clear of those problems. It is not even mandatory to require licensing for decommissioning. References to the guaranteeing of nuclear safety throughout the entire life of the nuclear installation, present in so many articles of the NSC, were also removed.

Generally, one can expect Community law to go further than international law, both in substance and at the level of enforcement. In this case, the Directive actually falls short of the depth of existing international law. But it does allow for supranational enforcement. True, the mechanisms for supranational monitoring – which was to be carried out by the Commission – were deleted. The Commission never suggested that it should inspect the safety of nuclear installations itself, but it wanted to supervise the work of national regulators. The blocking minority rejected that option.

Simultaneously, reporting mechanisms were included, but in such a way as to make the reporting requirements parallel to those of the NSC. The reports will be the same, and they shall be discussed in two different forums, with no apparent added value from their discussion at the EU level (except for the drafting of an EU-wide report by the Commission). If, for example, following the analysis of reports, a member state is criticised by the others and by the European Commission for a shortcoming in nuclear safety, it will not be obliged to correct it, unless that requirement can be said to derive directly from the letter of the directive (*i.e.*, unless it has not transposed the directive).

Even so, this directive will be interpreted and enforced by the ECJ. This mandatory dispute settlement mechanism is, in itself, a fundamental step forward in relation to the existing international framework, and it may lead to improvements that international law has so far not been able to achieve.

Because of the role to be played by the ECJ in infringement proceedings, a guaranteed practical consequence of this directive will be that, finally, every member state will have to put in place an independent nuclear regulator. There are still several that have not done so, even though they are obliged to under the NSC. Still, the impact of this obligation is reduced by the fact that independent nuclear regulators are now absent, mainly in member states without significant nuclear installations. The inclusion of this obligation was not a problem for the blocking minority, since those states seemed to feel confident that they had already complied with it.

It is arguable whether the ECJ will be able to stretch the letter of the directive any further than what was intended by the blocking minority within the Council. As has been mentioned above, there do not seem to be grounds to make the IAEA Safety Fundamentals, as such, binding under this directive.

But, depending on the cases presented to it, the ECJ may be able to take a 'rule-by-rule' approach, looking to the IAEA Safety Fundamentals (and other documents, such as WENRA guidelines) as a repository of internationally accepted safety standards. Its task is made easier by the two objectives listed at the beginning of the directive. Indeed, the directive explicitly states that it aims to establish a Community framework for nuclear safety. That alone could help the court feel more at ease in arriving, through interpretation, at Community safety standards, absent at first glance from the letter of the law.

Furthermore, the directive aims at maintaining and promoting the "continuous improvement of nuclear safety and its regulation", and ensuring that member states shall "provide for appropriate national arrangements for a high level of nuclear safety" (Art. 1). These objectives should be read together with the obligation foreseen in Art. 4(2) for the improvement of national regulations, "when appropriate, taking into account operating experience, insights gained from safety analysis for operating nuclear installations, development of technology and results of safety research, when available and relevant".

This seems to suggest that, although a margin of discretion has been left to the member states, the directive obliges them to frequently review their legislation and promote solutions that will ensure the highest level of nuclear safety. Furthermore, the directive also requires IRRS missions every ten years. As a result, each decade, every member state will have to publicly evaluate its regulatory framework and have it checked against international standards by the IAEA, the European Commission and other states. It is a small step to conclude that, together, these obligations require the member states to follow international best practices and commonly accepted safety standards. Paragraphs 13 and 14 of the directive's preamble offer further grounds for this interpretation.

With such an interpretation, the Commission will be able to initiate infringement proceedings under Directive 2009/71/Euratom for the violation of safety standards that are not technically binding, but which would be recognised as commonly accepted safety standards. Such standards are indeed the only nonarbitrary way of understanding what kind of nuclear safety measures are 'appropriate'. There could even develop a presumption that a state has failed to promote a high level of nuclear safety if its nuclear safety regulations are not in accordance with those standards.<sup>12</sup> This presumption would be excludable by showing that safety was guaranteed, but the burden of proof would shift from the Commission to the state in question.

Were the ECJ to follow such an interpretation, the directive would become far more than what it appears to be. Only time will tell.

Even without the abovementioned interpretation, there are a few situations which can be expected to lead to infringement proceedings under this directive. One example that has already been mentioned will occur if a member state has no regulatory authority for nuclear safety, or if such an authority (or authorities) is not independent. Another example is when a member state fails to act following an incident at a nuclear installation, or if the measures it orders are deemed insufficient by the Commission to guarantee nuclear safety.



But since infringement proceedings relating to directives tend to focus exclusively on the absence or incorrect transposition of their provisions, many obligations do not seem enforceable before the ECJ. The Commission will be able to check if the national legislation includes this or that obligation, but one should not expect it to be able to control whether the directive is being applied well in practice – *i.e.*, whether nuclear safety is being guaranteed in practice.

Thus, national law may require nuclear safety information to be made available to the public, but this does not mean it will actually be available in an easy and effective manner. National law may foresee regular inspections by the nuclear regulatory authority, but this does not mean that such inspections will actually take place, or that they will be carried out in a useful manner.

It is difficult at this stage to foresee what will be the substantive impact of the Nuclear Safety Directive. Much will depend on how energetic the Commission will be in stretching the reach of its obligations, as well as on how willing the ECJ will be to support the Commission's efforts.

## **6 Conclusion**

Commenting on the adoption of Directive 2009/71/Euratom, Commissioner Piebalgs stated that “nuclear safety is an absolute priority for the EU”.<sup>13</sup>

Clearly that is not the case. It may be an absolute priority for the Commission, but the Council of Ministers, as a whole, does not truly see nuclear safety as an EU issue. If it did, we would have a directive taking steps towards the guarantee of nuclear safety, with detailed safety standards and supranational supervision, perhaps even a Community regulator. Instead, the Nuclear Safety Directive falls short even of existing international law.

This unwillingness to recognise the supranational nature of nuclear safety issues, and the need for an EU solution, under the principle of subsidiarity, is all the more worrying in the context of a revival of nuclear energy, with several member states planning to extend the life of nuclear power plants or to build new ones.

What is worse, the states that have blocked the emergence of a true Community framework for nuclear safety, invoking sovereignty, are precisely the ones who refused entry into the EU of the Central and Eastern European countries who failed to meet nuclear safety standards defined and controlled by the European Commission. Such a double standard is unsustainable in the long run, and is fundamentally against the spirit of the European project.

Directive 2009/71/Euratom may still become much more than what the blocking minority in the Council desired. It will depend on the efforts of the European Commission and on the inclinations of the ECJ. But a more long-term solution should be sought. The European Parliament needs to be given a more active role in the legislative process relating to nuclear safety. The parliament is already a co-decider in the majority of European legislation, including in the areas of environmental and radiological protection. It is fundamentally illogical for its role to be merely consultative when it comes to nuclear safety, an area of great concern to European citizens.

## References

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## Notes

- 1 Sousa Ferro, M. (2008).
- 2 OJ L 172/18, of 7 February 2009.
- 3 European Commission (2009) 'The EU establishes a common binding framework on nuclear safety', Press Release IP/09/1039, 25 June [hereinafter European Commission IP/09/1039].
- 4 European Commission IP/09/1039.
- 5 Sousa Ferro (2008), *supra* note 2.
- 6 It should be noted that, in relation to other hazardous materials, member states have accepted far more stringent EU measures, such as the creation of two European regulatory agencies for the chemical industry (the European Chemical Agency and the European IPPC Bureau).
- 7 European Parliament legislative resolution of 22 April 2009 on the proposal for a Council Directive (Euratom) setting up a Community framework for nuclear safety (COM(2008)790final). See also: European Parliament Report on the proposal for a Council Directive (Euratom) setting up a Community framework for nuclear safety (A6-0236/2009).
- 8 ECJ Judgment of 28 October 1980, *Roquette Frères* (138/79), ECR (1980) 3333, para. 33 (our italics).
- 9 ECJ Judgment of 16 July 1992, *Parliament v. Council* (C-65/90), ECR (1992) I-4593, para. 16 (our italics).
- 10 European Commission IP/09/1039. This misunderstanding has also been reported in specialised media – see <http://www.iaea.org/NewsCenter/News/2009/euadoptsstandards.html>; [http://www.world-nuclear-news.org/RS\\_European\\_nuclear\\_safety\\_law\\_2506091.html](http://www.world-nuclear-news.org/RS_European_nuclear_safety_law_2506091.html); <http://www.neimagazine.com/story.asp?storyCode=2053428>.
- 11 Directive 2009/71/Euratom, Preamble §13.
- 12 For more on the possible indirect binding nature of IAEA safety standards, and on "technical norms, standards and guidelines, established by representative bodies, (...) accepted by the judiciary (...) as standard of due care", specifically within an EU context, see Veuchelen (2009).
- 13 European Commission IP/09/1039.

Appendix

Directive 2009/71/Euratom: analytical and comparative table

	<i>First proposal [COM(2003) 0032]</i>	<i>Directive 2009/71/Euratom</i>	<i>Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom</i>
<i>Scope</i>	<p>Arts. 1(2) and 2(1)</p> <p>These encompassed nuclear installations defined as “any civil facility and its land, buildings and equipment [including after the end of its operation] where nuclear materials, within the meaning of Article 197 of the Euratom Treaty, are produced, processed, used, handled or stored temporarily or permanently on such a scale that consideration of safety is required. This definition applies until the moment it is released from any radiological restrictions imposed upon it.”</p>	<p>Arts. 2(1) and 3(1)</p> <p>These encompass civilian nuclear installations, defined as:</p> <p>“a) an enrichment plant, nuclear fuel fabrication plant, nuclear power plant, reprocessing plant, research reactor facility, spent fuel storage facility; and</p> <p>(b) storage facilities for radioactive waste that are on the same site and are directly related to nuclear installations listed under point (a)”.</p> <p>See also the definition of licence – Art. 3(4) – which is identical to that of the NSC.</p>	<p>Arts. 2(1) and 3</p> <p>The directive has a <i>wider scope</i> than the NSC. It encompasses nuclear facilities other than power plants, even when they are not on the same site as the latter. It also covers research reactors, which have only been reported on under the NSC out of courtesy.</p> <p>No clarification was provided, however (unlike in the NSC), about when a nuclear installation ceases to be so considered, so that the directive’s obligations no longer apply to it.</p>
<i>Regulatory body</i>	<p>Arts. 3 and 4</p> <p>These required the establishment of a regulatory body to grant licences and supervise and regulate nuclear safety, provided with “adequate authority, competence and financial and human resources”, and “independent in its organisation, legal structure and decision making from any other body or organisation, whether private or public, concerned with the promotion or utilisation of nuclear energy”.</p>	<p>Arts. 3(3) and 5</p> <p>These require the establishment and maintenance of a regulatory authority (or a system of authorities) in the field of nuclear safety of nuclear installations.</p> <p>Independence is guaranteed by the requirement that such authorities “must be functionally separate from any other body or organisation concerned with the promotion, or utilisation of nuclear energy, including electricity production, in order to ensure effective independence from undue influence in its regulatory decision making”.</p> <p>These authorities must be given the necessary “legal powers and human and financial resources” to carry out their mission.</p>	<p>Arts. 2(2) and 8</p> <p>These are identical to the articles in the directive.</p>

*Directive 2009/71/Euratom: analytical and comparative table (continued)*

<i>First proposal [COM(2003) 0032]</i>	<i>Directive 2009/71/Euratom</i>	<i>Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom</i>
<p><i>Establishing and maintaining a legislative framework for nuclear safety</i></p> <p>No explicit statement</p> <p>Establishing and maintaining such a framework was required, although in an implied manner (due to the nature of the obligations of a directive).</p>	<p>Art. 4</p> <p>This requires member states to establish and maintain a national legislative and regulatory framework for the nuclear safety of nuclear installations. This framework must allocate responsibilities for:</p> <ul style="list-style-type: none"> <li>● the adoption of national nuclear safety requirements</li> <li>● the provision of a system of licensing and prohibition of operation of nuclear installations without a licence</li> <li>● the provision of a system of nuclear safety supervision</li> <li>● enforcement actions, including suspension of operation and modification or revocation of a licence</li> </ul> <p>This national framework must be improved, “when appropriate”, to take into account acquired experience and new technological and research developments.</p>	<p>Art. 7</p> <p>This is nearly identical to the directive. The directive seems to go further by requiring the national framework to be improved when experience and/or technological developments so require, although it may be argued that the NSC requires the same, but not as explicitly.</p>
<p><i>Priority to safety</i></p> <p>Art. 6</p> <p>This required member states to apply this principle.</p> <p>The second paragraph stated that nuclear safety should be taken into account in the measures under Art. 44 of Directive 96/29/Euratom (for operational protection of the population in normal circumstances).</p>	<p>Arts. 5(3) and 6(4)</p> <p>These require that the principle of priority to nuclear safety guide the action of both licensed operators and nuclear regulators.</p>	<p>Art. 10</p> <p>This is identical to the directive.</p>

Directive 2009/71/Euratom: analytical and comparative table (continued)

First proposal [COM(2003) 0032]	Directive 2009/71/Euratom	Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom
<p>Obligations of operators and safety of nuclear installations</p> <p>Arts. 5, 7(1) and 7(2)</p> <p>Member states would have to take measures to ensure the implementation of further measures to guarantee nuclear safety and the safe long term management of all materials, including radioactive waste and spent fuel produced in the decommissioning. Operators would be obliged to abide by the directive's common safety standards and by the regulations or measures of the regulatory authority.</p> <p>Operators would also have to establish Quality Assurance Programmes (QAPs, to be verified by the regulatory authority) and to implement them, so as to guarantee nuclear safety throughout the life of the installation.</p>	<p>Arts. 5(3), 6(2) and 6(4)</p> <p>Licence holders must:</p> <ul style="list-style-type: none"> <li>• comply with "national nuclear safety requirements and the terms of the relevant licence"</li> <li>• demonstrate such compliance</li> <li>• "regularly assess and verify, and continuously improve, as far as reasonably achievable, the nuclear safety of their nuclear installations in a systematic and verifiable manner"</li> <li>• "establish and implement management systems which give due priority to nuclear safety and are regularly verified" by the nuclear regulator.</li> </ul>	<p>Arts. 13, 14 and 17 to 19</p> <p>Under the NSC, parties must require licence holders to:</p> <ul style="list-style-type: none"> <li>• establish and implement QAPs</li> <li>• carry out comprehensive and systematic safety assessment before the construction and commissioning of a nuclear installation and, throughout its life, documenting and updating these assessments in light of operating experience and significant new safety information (under the supervision of the nuclear regulator).</li> </ul> <p>The convention also imposes obligations relating to:</p> <ul style="list-style-type: none"> <li>• siting of nuclear installations (evaluation of all safety relevant factors, environmental impact assessment, consultation of other parties which may be affected by the installation, <i>etc.</i>)</li> <li>• design and construction of nuclear installations (existence of several reliable levels and methods of protection – defense in depth; use only of proven technologies; facilitation of reliable, stable and easily manageable operation)</li> <li>• operation of a nuclear installation (initial safety analysis and commissioning programme; setting and revising operational limits and conditions; approved procedures for the operation, maintenance, inspection and testing of a nuclear installation; establishment of procedures to respond to operational occurrences and accidents; availability of necessary engineering and technical support; experience analysis programmes; reduction of radioactive waste to minimum possible, <i>etc.</i>).</li> </ul> <p>In comparison, the directive's regime is extremely sparse. However, one should keep in mind that a few of these NSC obligations are already included in the Community <i>acquis</i> (see, e.g., the EIA Directive).</p>

*Directive 2009/71/Euratom: analytical and comparative table (continued)*

	<i>First proposal [COM(2003) 0032]</i>	<i>Directive 2009/71/Euratom</i>	<i>Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom</i>
<i>Prime responsibility to the licence holder</i>	Absent	Art. 6(1) Member states must ensure that “the prime responsibility for nuclear safety of a nuclear installation rests with the licence holder. This responsibility cannot be delegated.”	Art. 9 This is identical to the directive. The directive has clarified that this principle implies that the licence holder’s responsibility cannot be delegated.
<i>Inspection and enforcement</i>	Art. 8 This required nuclear safety inspections by the regulatory authority, including during decommissioning (without further specification).	Arts. 4(1)(c) and (d), 5(3) and 6(2) to 6(3) Member states must have a “system of nuclear safety supervision”. Licence holders must be required to demonstrate compliance with nuclear safety requirements, and this compliance must be verified by the nuclear regulators, <i>inter alia</i> by carrying out “enforcement actions, including suspension of operation and modification or revocation of a licence”.	Arts. 14 and 19 The NSC is very similar to the directive in this regard. The directive uses a different language from that of the NSC in imposing a system of regulatory inspection and enforcement, but the convention shares the same spirit and objective.
<i>Financial resources</i>	Art. 9 (and Annex) The first paragraph put forward the general principle that “adequate financial resources” should be available to guarantee the safety of the installation. Two more paragraphs related to the availability of funds for decommissioning. With the exception of noncommercial installations (the availability of resources for their decommissioning would be freely decided by each state), states would have to ensure the existence of those funds (as such) at the time of decommissioning, and these would have to comply with minimum criteria defined in an annex. The minimum criteria were reasonably precise, but included the possibility of unilateral exceptions (effectively, member states deciding not to comply with these criteria), as long as these were decided within a certain deadline.	Arts. 5(3) and 6(5) National regulatory authorities must be provided with the “financial resources necessary to fulfil [their] obligations”. National legislation must require licence holders to “provide for and maintain adequate financial (...) resources to fulfil their obligations with respect to nuclear safety of a nuclear installation”.	Art 11(a) This is identical to the directive. The NSC specifies that these financial resources must be available throughout the entire life of the nuclear installation, an element which can be found in the directive only through interpretation.

Directive 2009/71/Euratom: analytical and comparative table (continued)

	First proposal [COM(2003) 0032]	Directive 2009/71/Euratom	Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom
<i>Human resources</i>	Art. 10 This required states to guarantee the availability of nuclear safety experts, including through the existence of appropriate curricula and continuous training.	Arts. 5(3), 6(5) and 7 National regulatory authorities must be provided with the "human (...) resources necessary to fulfil [their] obligations". National legislation must require licence holders to "provide for and maintain adequate (...) human resources to fulfil their obligations with respect to nuclear safety of a nuclear installation". National law must also require "arrangements for education and training to be made by all parties for their staff having responsibilities relating to nuclear safety of nuclear installations, in order to maintain and further develop expertise and skills in nuclear safety".	Arts. 11(b) and 12 The NSC is very similar to the directive. The NSC emphasises the need for adequate human resources throughout the life of the nuclear installation, and it also establishes the principle of taking account of the limitations of human performance when planning nuclear safety. These elements are absent from the letter of the directive, but they can be arrived at through interpretation.
<i>Information to the public</i>	Art. 8 Absent	Art. 8 This requires member states to "ensure that information in relation to the regulation of nuclear safety is made available to the workers and the general public". This obligation is explicitly extended to the national nuclear regulator. An express safeguard is included to prevent the divulging of information that would "jeopardise other interests" (e.g., security).	Absent The NSC does contain some provisions that already show concern for the availability of information to the public (e.g., Arts. 16 and 25), but nothing comparable to this provision of the directive.

*Directive 2009/71/Euratom: analytical and comparative table (continued)*

	<i>First proposal [COM(2003) 0032]</i>	<i>Directive 2009/71/Euratom</i>	<i>Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom</i>
<i>Incidents/ Emergencies</i>	Art. 11 This required the establishment of emergency plans, to be approved by the regulatory authority, as well as the immediate notification of that authority in case of a significant incident.	Art. 6(3) National regulatory authorities must verify that "measures are in place for prevention of accidents and mitigation of consequences of accidents, including verification of the physical barriers and licence holder's administrative procedures of protection that would have to fail before workers and the general public would be significantly affected by ionising radiations".	Arts. 16 and 19(7) Although the directive itself does not contain similar requirements to that of the NSC (except for the brief reference in the quoted provision), these can already be found in the Community <i>acquis</i> , <i>maxime</i> in Title IX of Directive 96/29/Euratom, Directive 89/618/Euratom and Council Decision 87/600/Euratom. As a result, EC law and international law are essentially identical, with the first being generally more detailed.  The NSC explicitly requires the testing of emergency plans before the commencing of operations of a new installation. This obligation is absent from Community law.
<i>Radiation protection</i>	Absent	Absent	Art. 15 Community law already provides, in greater detail, for the radiological protection of workers, <i>maxime</i> through Directive 96/29/Euratom.



Directive 2009/71/Euratom: analytical and comparative table (continued)

	First proposal [COM(2003) 0032]	Directive 2009/71/Euratom	Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom
<i>Supranational monitoring</i>	<p>Art. 12</p> <p>The Commission would carry out verifications of national safety authorities (not directly of the installations themselves), resorting to a pool of national experts (who would never participate in verifications in their own state).</p> <p>In a feature typical of classical international law, and extremely unusual in Community law (see, by contrast, investigative powers under competition law), each verification would have to be previously approved by the national authority in question. The Commission planned to conduct 20 verifications each year (see p.21 of proposal).</p> <p>The Commission could ask for additional clarifications. Any shortcomings detected would be indicated in a Commission report, to be sent to the member state concerned, who would have three months to indicate the measures taken to address those issues. This seemed to be a necessary step before beginning the administrative phase of an infringement proceeding.</p>	Absent	Absent
<i>Reporting</i>	<p>Art. 13</p> <p>This required the annual submission of national nuclear safety reports to the Commission, which would organise meetings with member states to examine them.</p> <p>The Commission would have to present, biannually, an EU nuclear safety report to the Council and the European Parliament, gathering information from national reports and verifications.</p>	<p>Arts. 9(1) and (2)</p> <p>The directive requires member states to submit reports to the Commission every three years, starting on 22 July 2014, in line with the reporting cycles under the NSC.</p> <p>The Commission must then present a global report to the Council and the European Parliament.</p>	<p>Arts. 5 and 20 to 28</p> <p>The Directive includes reporting obligations that were designed to be parallel to those of the NSC. Rather than having to make different reports at different times, Member States will be obliged only to make one report with the same periodicity. In effect, the Directive merely adds another forum for the discussion of NSC reports.</p> <p>However, while the NSC has fairly detailed provisions on reporting procedures, particularly on the discussion of the reports, these are entirely absent from the Directive. ENSREG intends to ask Member States to voluntarily present annual reports.</p>

*Directive 2009/71/Euratom: analytical and comparative table (continued)*

<i>First proposal [COM(2003) 0032]</i>	<i>Directive 2009/71/Euratom</i>	<i>Nuclear Safety Convention + comparative analysis with Directive 2009/71/Euratom</i>
<p><i>Self-assessment and peer review</i></p> <p>Absent</p>	<p>Art. 9(3)</p> <p>This requires member states to “arrange for periodic self-assessments of their national framework and competent regulatory authorities and invite an international peer review of relevant segments”, at least every ten years, reporting any outcomes to the member states and the Commission.</p>	<p>Absent</p> <p>Under the NSC, self-assessments and IRRS missions are entirely voluntary for each party.</p> <p>The directive is clearly making a reference to the IRRS under the NSC and the IAEA. It goes further than the international framework by making such exercises mandatory, at least once every ten years. But it does not create a proper Community system of peer review, and an international peer review has no mandatory consequences.</p>
<p><i>More stringent measures</i></p> <p>Art. 14</p> <p>The possibility of the application of more stringent measures by member states was explicitly foreseen (subject to notification of the Commission).</p>	<p>Art. 2(2)</p> <p>The directive explicitly indicates that it “does not prevent Member States from taking more stringent safety measures in the subject-matter covered by this Directive, in compliance with Community law”.</p>	<p>Absent</p> <p>There is no comparable provision in the NSC, mostly because such a provision would have been superfluous.</p>