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Europe, Nuclear Risks, and the Politics of Restraint

by **Ludovica Castelli**

Attacks on nuclear facilities – whether conducted during armed conflict, outside of it or as pre-emptive counterproliferation measures – represent one of the gravest yet least regulated dangers in contemporary international security. European states have long been central actors in shaping, discussing and ultimately constraining the development of norms governing such attacks. From the 1943 Allied bombing of Norway's Norsk Hydro plant to Russia's ongoing occupation and shelling of Ukraine's Zaporizhzhia nuclear power plant, Europe has served as both a historical ground of nuclear-facility vulnerability and a diplomatic arena for deciding how these infrastructures should be protected. Yet over five decades, European governments – Sweden being the notable exception – have repeatedly adopted a posture of normative deferral, expressing humanitarian concern but avoiding commitments that might restrict military flexibility or disrupt alliance politics. This pattern produced the "linkage dilemma" of the 1980s, stalled multilateral negotiations in the 1990s, contributed to the terrorism-centric nuclear security regime of the 2000s, and now shapes divergent European reactions to recent US-Israeli attacks on Iran's nuclear facilities and Russia's actions in Ukraine.

Attacks on nuclear facilities generate immediate and visceral alarm. They are capable of turning conventional conflicts into radiological disasters and transforming localised hostilities into global crises. Although these attacks are often associated with the Middle East – from Israel's 1981 bombing of Iraq's Osirak reactor to more recent US and Israeli operations targeting Iranian nuclear infrastructure – the phenomenon is by no means geographically confined. Europe, in fact, witnessed the first wartime strike on a nuclear-relevant installation when Allied forces bombed the Norsk Hydro plant in Nazi-occupied Norway in 1943. Today, Russia's invasion of Ukraine has created an unprecedented situation: a major operational nuclear power plant under sustained military occupation, repeatedly shelled, and operated under duress. The Zaporizhzhia crisis has pushed European policymakers to confront risks that had long remained abstract or politically distant. It has likewise laid bare the structural frailties of the governance frameworks meant to forestall such dangers. Europe's long and complicated engagement with this issue offers an especially revealing lens for understanding why these shortcomings persist.[1]

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[1] Yousif, Nadine, "US Strikes Did Not Destroy Iran Nuclear Programme, Says Intelligence Assessment", in *BBC News*, 25 June 2025, https://www.bbc.com/news/articles/

The Zaporizhzhia crisis has pushed European policymakers to confront risks that had long remained abstract or politically distant

The question of whether, and under what conditions, nuclear facilities should be protected through humanitarian, disarmament or security frameworks is not new. What we are witnessing today is the re-emergence of a structural tension first articulated in the 1980s, when Sweden became the most persistent and imaginative advocate for a comprehensive prohibition on attacks against nuclear installations. Other Western European states, however, consistently resisted efforts to broaden or clarify legal protections, frequently invoking institutional mandates or practical constraints to justify their reluctance.

The consequences of this ambivalence are now visible in the enduring weaknesses of the international nuclear security regime. The legal protection of nuclear installations still rests primarily on Article 56 of Additional Protocol I to the Geneva Conventions, a provision whose narrow scope and military-necessity caveats leave significant room for state discretion. Multilateral negotiations aimed at developing a more comprehensive framework collapsed in the late 1980s and early 1990s, gradually replaced by a terrorism-focused paradigm that redirected attention away from the problem of interstate attacks. When Russia began targeting Ukrainian nuclear installations – including Zaporizhzhia – European states found themselves responding to an unprecedented crisis with a legal and institutional toolbox largely unchanged since the Cold War. This produced a patchwork of bespoke solutions and negotiated settlements which circumvented any dialogue over a comprehensive multilateral framework designed to address the deliberate militarisation of civilian nuclear sites. Such policy unpreparedness, coupled with political expediency, re-emerged in Europe's reaction to the Israeli and US attacks on Iran's nuclear facilities in June 2025, when European statements again omitted any reference to the associated nuclear security risks.[2]

1 Early legal foundations and normative tensions (1950s-1970s)

1.1 The narrow scope of protection

Efforts to develop legal protections for installations containing "dangerous forces" emerged well before nuclear power plants became widespread. During the 1950s, the International Committee of the

ckglxwp5x03o; Saito, Mari et al., "Russia Turns a Ukrainian Nuclear City into a Stronghold of Fear", in *Reuters*, 29 August 2025, https://www.reuters.com/investigations/russia-turns-ukrainian-nuclear-city-into-stronghold-fear-2025-08-29.

[2] Castelli, Ludovica and Olamide Samuel, "Justifying Attacks on Nuclear Facilities", in *The Nonproliferation Review*, Vol. 30, No. 1-3 (2023), p. 83-105, https://doi.org/10.1080/10736700.2024.2301883.

Red Cross (ICRC) sought to address the humanitarian risks posed by attacks on infrastructure whose destruction would have catastrophic effects on civilians. In its 1956 Draft Rules for the Limitation of the Dangers Incurred by the Civilian Population in Time of War, the ICRC explicitly proposed granting immunity – under *jus in bello* – to installations such as dams, dykes and nuclear electrical generating stations.[3] This early recognition of the unique risks associated with nuclear facilities framed subsequent discussions within international humanitarian law (IHL).

Two decades later, these ideas were codified in Article 56 of Additional Protocol I to the Geneva Conventions and Article 15 of Protocol II, adopted in 1977.[4] The provisions represented an important normative milestone: they placed nuclear electrical generating stations in the same legal category as dams and dykes, recognising that attacks on such facilities could unleash dangerous forces with devastating humanitarian consequences. But the protections were far from absolute. The articles only covered a narrow subset of nuclear installations – specifically, civilian nuclear power plants – excluding many other facilities containing radioactive material, such as research reactors, reprocessing plants or spent-fuel storage sites.

More importantly, Article 56 included a critical caveat: protection would cease if the installation were used in "regular, significant and direct support of military operations".[5] This exception preserved a wide margin of discretion for military planners and ensured that the principle of military necessity continued to shape assessments of whether and how nuclear facilities might be targeted. The provision's complexity reflected the fundamental tension that arose throughout the negotiations, namely how to balance humanitarian protection against military concerns in a domain dominated by dual-use infrastructure.

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1.2 Western reserves

The United States emerged as the most vocal critic of Article 56. An internal Department of Defense review shortly before adoption of the Protocol declared the provision "unacceptable", arguing that it overemphasised humanitarian considerations at the expense of

[3] International Committee of the Red Cross (ICRC) website: *The Geneva Conventions and their Commentaries*, https://www.icrc.org/en/document/geneva-conventions-1949-additional-protocols.

[4] Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977, Article 56, https://ihl-databases.icrc.org/en/ihl-treaties/api-1977; Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), 8 June 1977, Article 15, https://ihl-databases.icrc.org/en/ihl-treaties/apii-1977.

[5] Protocol I, Article 56(2), https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/article-56.

NATO countries feared that any legal framework regulating attacks on nuclear facilities should avoid imposing undue constraints on military freedom of action

operational flexibility.[6] The same review insisted that nuclear power stations could be disabled without releasing dangerous forces, and thus should not be categorically protected. This line of reasoning would recur repeatedly during the 1980s, particularly among Western European states aligned with NATO's strategic doctrine.

Although European governments were less confrontational in tone, their positions were not substantially different. France and the United Kingdom both insisted that they could not commit to granting absolute protection to installations that might contribute to an adversary's war effort.[7] Their statements highlighted a shared apprehension across NATO countries that any legal framework regulating attacks on nuclear facilities should avoid imposing undue constraints on military freedom of action.

While humanitarian lawyers perceived Article 56 as an important step toward recognising the catastrophic risks associated with nuclear infrastructure, many states – particularly those embedded in military alliances – saw it as a delicate compromise that had already pushed the boundaries of operational acceptability. This tension between humanitarian ambition and military pragmatism would resurface with far greater intensity in the decade that followed.

1.3 Nuclear security as a distinct domain

Meanwhile, nuclear governance institutions were developing in parallel. Before 1972, neither national nor international frameworks required robust physical protection measures for civilian nuclear infrastructure. The early recommendations on physical protection, issued by the International Atomic Energy Agency (IAEA) in 1972 and revised in 1975, were the first attempts to articulate standards in this domain.[8] They eventually led to negotiations for the Convention on the Physical Protection of Nuclear Material (CPPNM), adopted in 1979 and in force since 1987. But the CPPNM focused primarily on preventing theft or sabotage by non-state actors; it did not address state-sponsored attacks – an omission that would later prove consequential.

Also in 1979 the United States and the Soviet Union jointly proposed negotiations for a treaty banning radiological weapons.[9]

[6] US Department of Defense, *Memorandum to the Chairman of the Joint Chiefs of Staff: Protocols I and II - Humanitarian Law during Armed Conflict*, 7 November 1977, https://nsarchive.gwu.edu/document/30371-document-22-walter-slocombe-principal-deputy-assistant-secretary-defense.

[7] United Kingdom, *Corrected Letter of 28 January 1998 sent to the Swiss Government by Christopher Hulse, HM Ambassador of the United Kingdom*, https://ihl-databases.icrc.org/en/ihl-treaties/api-1977/state-parties/gb.

[8] IAEA, *The Physical Protection of Nuclear Material*, INFCIRC/225, September 1975, https://www.iaea.org/sites/default/files/publications/documents/infcircs/1975/infcirc225.pdf.

[9] USSR, *Agreed Joint USSR-US Proposal on Major Elements of a Treaty Prohibiting the*

This initiative brought the issue of radiological warfare to the Conference of the Committee on Disarmament (CCD) and created an unexpected opening for states concerned about the radiological consequences of attacks on nuclear installations. Among these states, none would prove more influential or determined than Sweden.

2 The 1980s: European contestation and the "linkage dilemma"

2.1 Sweden's norm entrepreneurship

Sweden emerged as the key disruptor of the prevailing logic

The 1980s marked the most dynamic and politically revealing decade in the debate on how to protect nuclear facilities from armed attack. It was in these years that the issue moved from the margins of technical concern to the centre of a heated diplomatic struggle, fuelled by clashes over mandate, strategic interests, and the very definition of what constituted radiological warfare. Sweden emerged as the key disruptor of the prevailing logic, pushing for an ambitious interpretation of radiological risk that Western European governments resisted.

The debate was formally opened in 1980 at the Conference on Disarmament (CD), where an ad hoc working group on a Radiological Weapons Convention (RWC) was created at the request of several Western European states. Ironically, it was this procedural initiative – intended to constrain the scope of discussion – that gave Sweden the platform it needed to advance a far more expansive vision. During the 1981 session, the Swedish representative delivered what would become a foundational argument, namely that attacks on nuclear installations risked causing radiological devastation similar to radiological weapons themselves, and therefore ought to be included within the RWC's remit.[10]

This proposal rested on two critical observations. The first was that Article 56 of Protocol I covered only a narrow category of facilities – specifically, nuclear electrical generating stations – leaving many high-risk installations outside the protection of IHL. The second was that the military-necessity caveat embedded in Article 56 meant that even protected facilities could lawfully be attacked under certain conditions, thereby weakening the humanitarian objective the provision purported to advance. In Sweden's view, the existing legal

Development, Production, Stockpiling and Use of Radiological Weapons (CD/31), 9 July 1979; USA, *Agreed Joint US-USSR Proposal on Major Elements of a Treaty Prohibiting the Development, Production, Stockpiling and Use of Radiological Weapons* (CD/32), 9 July 1979, https://documents.unoda.org/wp-content/uploads/2020/11/CD_INF55_ai5.pdf.

[10] Committee on Disarmament, *Report of the Committee on Disarmament, Appendix III, Vol. IV: Final Record of the One Hundred and Twenty-Third Meeting* (CD/PV.122), 21 August 1981, https://digitallibrary.un.org/record/27409.

framework was structurally inadequate because it recognised the potential for catastrophic radiological release but did not constrain the circumstances in which states might decide to attack a nuclear facility.[11]

Sweden's intervention reframed the entire discussion. Instead of treating radiological weapons and attacks on nuclear installations as separate issues, it sought to demonstrate that the two phenomena were linked by a shared mechanism of harm. The release of ionising radiation – whether triggered by a weapon or caused by bombing a reactor – was the core humanitarian concern. In this sense, Sweden was not merely lobbying for an expanded treaty; it was attempting to recast how the international community conceptualised radiological danger and the obligations arising from it.

2.2 Western reserves 2.0

For most Western European states, this conceptual move crossed a red line

For most Western European states, this conceptual move crossed a red line. The Netherlands, acting as the most articulate opponent of Sweden's proposal, insisted that the CD's mandate was limited to banning radiological weapons, not regulating the means through which conventional military operations might incidentally cause radiological release.[12] France, the West Germany, Belgium, Italy and the United Kingdom all aligned themselves with the Dutch position. Their objections varied in emphasis, but the underlying logic was consistent: linking attacks on nuclear installations to radiological weapons risked expanding the scope of the treaty beyond political feasibility and, more importantly, beyond what NATO militaries considered operationally acceptable.

It was this divide that crystallised into what contemporaries began calling the "linkage dilemma". At its heart lay the question of whether protection of nuclear facilities should be addressed as part of a broader prohibition on radiological warfare or treated as a separate, narrowly defined humanitarian issue. Sweden argued that the two were inseparable; Western European states argued that they must remain distinct. That conceptual disagreement proved impossible to bridge.

2.3 The Osirak strike: A moment of normative opportunity and retreat

The Israeli attack on Iraq's Osirak reactor on 7 June 1981 intensified the debate dramatically. For the first time, a state had attacked a reactor under IAEA safeguards and had done so in peacetime, on the

[11] Ibid.
[12] United Nations, *The United Nations Disarmament Yearbook, Vol. 5: 1980*, New York, 1981, p. 290, https://digitallibrary.un.org/record/25677.

The Israeli attack on Iraq's Osirak reactor on 7 June 1981 intensified the debate dramatically

grounds of anticipatory self-defence.[13] The incident thrust the issue to the forefront of the international agenda and seemed, at first glance, to validate Sweden's warnings. Inspection reports confirmed that Iraq had been in compliance with its IAEA safeguards agreement, undermining Israel's claim that a nuclear weapon was imminent.[14] The attack was thus a direct challenge to the normative foundations of the non-proliferation regime.

Western European states responded with a mix of alarm and caution. As a bloc, the then ten European Economic Community (EEC) member states (Greece and the Iberian states were yet to join) condemned the attack and rejected Israel's legal justification, particularly its claim of anticipatory self-defence.[15] Yet when confronted with concrete proposals to sanction Israel, suspend its participation in the IAEA, or adopt UN punitive resolutions, they balked. They abstained or voted against such measures at the UN General Assembly, insisting that politicising the IAEA or challenging its universality would be counterproductive.[16]

This duality became emblematic of Western Europe's position throughout the decade: rhetorical condemnation paired with procedural inaction. Even when faced with a case that directly implicated the integrity of the safeguards system – arguably the centrepiece of European non-proliferation policy – Western governments resisted adopting measures that might constrain allied states or expose divisions within the Western bloc. In this sense, the Osirak affair did not catalyse the introduction of stronger protections; instead, it hardened Western Europe's preference for maintaining the status quo.

By the late 1980s, the fatigue was palpable. Sweden continued to propose compromise solutions, but without Western European support, no consensus was possible. What remained was a fragmented patchwork: a narrow IHL provision that offered only conditional protection, a dormant CD agenda, and an IAEA repeatedly reminded of its limited mandate. The decade had shown that while states could agree that attacks on nuclear facilities posed grave risks, they could not agree on who should address the problem or how

[13] IAEA, "Attack on Iraqi Nuclear Research Centre, 7 June 1981", in *Achille Albonetti's Personal Papers*, Box 200, https://digitalarchive.wilsoncenter.org/node/104557.
[14] IAEA, *Military Attack on Iraqi Nuclear Research Centre and Its Implications for the Agency* (GC(25)/RES/381), 19 October 1981, https://www.iaea.org/sites/default/files/gc/gc25res-381_en.pdf.
[15] IAEA, *General Debate and Annual Report for 1980* (GC(25)/OR.229), 21 September 1981, https://www.iaea.org/sites/default/files/gc/gc25or-229_en.pdf.
[16] UN General Assembly, *Armed Israeli Aggression against the Iraqi Nuclear Installations and its Grave Consequences for the Established International System Concerning the Peaceful Uses of Nuclear Energy, the Non-Proliferation of Nuclear Weapons and International Peace and Security* (A/RES/36/27), 13 November 1981, https://digitallibrary.un.org/record/27621.

far legal prohibitions should go. The EEC, caught between Sweden's norm entrepreneurship and NATO-aligned states' strategic caution, ultimately contributed to the paralysis.

3 The 1990s: Drift, dilution and disappearance

If the 1980s were a decade of contestation, the 1990s were a decade of drift. The end of the Cold War created the illusion that a more cooperative international order might provide an opening to address long-standing nuclear risks. But rather than revive efforts to strengthen protections for nuclear facilities, the period witnessed the gradual disappearance of the issue from the political agenda.

The clearest missed opportunity came in 1990, when a draft UN General Assembly resolution proposed convening a diplomatic conference to negotiate a prohibition on attacks against nuclear facilities.[17] The resolution garnered broad international support, reflecting widespread concern that existing legal provisions were insufficient. Yet Western European responses once again revealed internal divisions. France, the United Kingdom and Ireland abstained, arguing that the resolution's proposed process was too ambitious, that the UN Security Council should play a central role, and that any prohibition must distinguish between safeguarded and unsafeguarded facilities[18] – a distinction the draft did not meaningfully address.[19]

Events during the 1991 Gulf War further complicated the picture

Events during the 1991 Gulf War further complicated the picture. The United States struck several Iraqi nuclear installations, some under IAEA safeguards.[20] Meanwhile, tensions in the former Yugoslavia raised concerns about the vulnerability of the Krsko power plant in Slovenia, prompting inquiries from the IAEA Director General about its safety.[21] These incidents demonstrated the persistent relevance of the issue, yet they prompted no sustained effort to develop new

[17] UN General Assembly, *Prohibition of Attacks on Nuclear Facilities* (A/RES/45/58/J), 4 December 1990, https://digitallibrary.un.org/record/196757.
[18] Safeguarded facilities are those placed under IAEA safeguards – a set of technical measures that allow the Agency to independently verify a state's legal obligation that nuclear facilities are not misused and nuclear material is not diverted from peaceful uses, as agreed through a safeguards agreement. Unsafeguarded facilities, by contrast, fall outside this system of verification, meaning the IAEA cannot apply its technical measures or confirm that activities and materials are used solely for peaceful purposes. See, IAEA website: *Safeguards Explained*, http://www.iaea.org/node/16932.
[19] United Nations, *The United Nations Disarmament Yearbook, Vol. 15: 1990*, New York, 1991, p. 322-323, https://digitallibrary.un.org/record/128214.
[20] Keaney, Thomas A. and Eliot A. Cohen (eds), *Gulf War Air Power Survey*, Washington, Office of the Secretary of the Air Force, 1993, https://sgp.fas.org/library/index.html#gwaps.
[21] IAEA, *Measures to Strengthen International Co-operation in Matters Relating to Nuclear Safety and Radiological Protection: (e) Prohibition of all Armed Attacks against Nuclear Installations Devoted to Peaceful Purposes whether under Construction or in Operation* (GC(35)/INF/297), 9 August 1991, https://www.iaea.org/sites/default/files/gc/gc35inf-297_en.pdf.

international protections. Instead, they highlighted how little practical guidance existed for dealing with nuclear facilities during armed conflict.

By 1993, the CD quietly abandoned the radiological weapons agenda altogether.[22] Even Sweden – which had spent a decade championing the comprehensive protection of nuclear facilities – scaled back its position to align with the more restrictive preferences of Western European governments. With no state willing to carry the issue forward, nuclear facility protection simply vanished from multilateral diplomacy.

4 The 2000s: The terrorism paradigm

When the 11 September 2001 attacks transformed US and European security priorities, the nuclear domain was reshaped accordingly

When the 11 September 2001 attacks transformed US and European security priorities, the nuclear domain was reshaped accordingly. Suddenly, the dominant fear was no longer interstate conflict involving nuclear infrastructure, but the prospect of non-state actors acquiring nuclear or radiological materials or targeting nuclear infrastructure. This shift profoundly influenced the trajectory of nuclear governance, steering attention, resources and legal innovation toward combating nuclear terrorism.

Efforts to revive the radiological weapons discussion in the CD failed almost immediately. Germany's attempt in 2002 to re-establish the working group that had collapsed in the early 1990s met the same obstacles as before: disagreements over agenda-setting and the question of the most appropriate forum once again prevented meaningful progress.[23]

Instead, two major legal instruments reshaped the global nuclear security landscape. The 2005 Amendment to the CPPNM expanded protection to domestic use, storage and transport of nuclear material, and it established binding obligations for physical protection measures. It did not, however, address the question of state attacks.[24] Likewise, the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), adopted the same year and entered into force in 2007, criminalised intentional actions that risked releasing radiation but focused exclusively on non-state perpetrators.[25]

[22] United Nations, *The United Nations Disarmament Yearbook, Vol. 18: 1993*, New York, 1994, p. 139, https://digitallibrary.un.org/record/193532.
[23] Conference on Disarmament, *Final Record of the Nine Hundred and Eight Plenary Meeting* (CD/PV.908), 31 July 2002, https://www.iaea.org/sites/default/files/22/06/cppnm_reserv.pdf; and *Germany Discussion Paper, Radiological Weapons* (CD/1681), 15 August 2002, https://documents.un.org/doc/undoc/gen/g02/636/01/pdf/g0263601.pdf.
[24] IAEA, *Amendment to the Convention on the Physical Protection of Nuclear Material* (INFCIRC/274/Rev.1/Mod.1 Corrected), 18 October 2021, https://www.iaea.org/sites/default/files/publications/documents/infcircs/1979/infcirc274r1m1c.pdf.
[25] International Convention for the Suppression of Acts of Nuclear Terrorism, 13 April 2005, https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XVIII-

At the European level, the terrorism paradigm became entrenched. The 2003 European Security Strategy and the subsequent EU Counter-Terrorism Strategy and EU Strategy against Proliferation of Weapons of Mass Destruction framed nuclear risks almost exclusively as a subset of chemical, biological, radiological and nuclear (CBRN) threats posed by terrorists.[26] This approach reinforced the notion that nuclear security governance should be technocratic, preventive and centred on law enforcement, rather than concerned with the conduct of states during armed conflict.

The shift had two consequences. First, it reduced political attention to the vulnerabilities of nuclear installations during wartime – a topic already neglected since the early 1990s. Second, it created a structural disconnect between nuclear safety, nuclear security and international humanitarian law, each of which evolved along separate institutional tracks without addressing overlaps.

Yet state attacks on nuclear facilities did not cease. Israel's destruction of a suspected Syrian nuclear site in 2007 received relatively little international debate.[27] Russia's activities in Ukraine beginning in 2014, including the occupation of Crimea's reactors and threats to Ukrainian nuclear infrastructure, similarly produced no significant movement in multilateral forums.[28] The normative silence that had defined the 1990s persisted. By the time Russia launched its full-scale invasion in 2022, the international community had no updated legal or institutional mechanisms to address the unprecedented situation that would unfold at Zaporizhzhia.

In 2022, the international community had no updated legal or institutional mechanisms to address the situation that would unfold at Zaporizhzhia

5 The return of state-centric threats: Iran 2025 and Zaporizhzhia

The ascendance of nuclear terrorism as the defining threat of the early twenty-first century reshaped the distribution of attention within nuclear governance, directing emphasis and institutional adaptation toward non-state actors. This shift, however, left state-centric threats comparatively underexamined, a gap that became increasingly visible as such threats regained prominence. Russia's full-scale invasion of Ukraine in 2022 created a scenario without historical

15&chapter=18&Temp=mtdsg3&clang=_en.

[26] Council of the EU, *The European Union Counter-Terrorism Strategy* (14469/4/05 REV 4), 30 November 2005, https://data.consilium.europa.eu/doc/document/ST%2014469%202005%20REV%204/EN/pdf; *A Secure Europe in a Better World: European Security Strategy*, December 2003, https://data.europa.eu/doi/10.2860/1402; *EU Strategy against Proliferation of Weapons of Mass Destruction*, 10 December 2003, https://data.consilium.europa.eu/doc/document/ST-15708-2003-INIT/en/pdf.

[27] "Israel Admits Striking Suspected Syrian Nuclear Reactor in 2007", in *BBC News*, 21 March 2018, https://www.bbc.com/news/world-middle-east-43481803.

[28] Vestergaard, Cindy, "Nuclear Annexation: A New Proliferation Concern?", in *Stimson Policy Memos*, 23 March 2022, https://www.stimson.org/?p=56831.

All IAEA's basic standards of nuclear safety and security have been violated in multiple ways

precedent: an operational nuclear power plant transformed into a zone of sustained military occupation and conflict. The Zaporizhzhia nuclear power plant has been shelled repeatedly, disconnected from external power supplies, and operated under conditions of duress and limited autonomy.[29] All IAEA's basic standards of nuclear safety and security have been violated in multiple ways.[30]

Yet even here, where radiological danger was immediate and unprecedented, no meaningful legal or normative innovation ensued. Instead, the incident starkly exposed the accumulated consequences of decades of institutional ambiguity and norm fragmentation, particularly around the legal status and protection of nuclear infrastructure in armed conflict. Discussions of Article 56's limitations were notably absent. Proposals to revive debates from the 1980s and 1990s did not emerge. European responses focused on supporting IAEA monitoring, calling for demilitarisation of the plant and issuing political condemnations of Russian behaviour.

This hesitancy became evident again in European reactions to Israeli and US strikes on Iranian nuclear-associated facilities. The EU expressed its deepest concern but avoided taking a clear legal position on the attacks themselves, while Germany and France (as well as the United Kingdom) all but endorsed the US-Israeli bombing campaign.[31] What emerged from this diversity was not a coherent European perspective but rather the same ambivalence that had characterised Western Europe's reactions to earlier incidents: a reluctance to condemn the use of force by close partners, even when such actions widened further an unresolved legal and normative gap.

Conclusions

The historical trajectory traced above reveals a striking continuity in European engagement with the legal protection of nuclear facilities. From Sweden's norm entrepreneurship in the 1980s to the EU's cautious and ultimately inert response to the Zaporizhzhia crisis, European states have followed a trajectory from normative deferral

[29] Faulconbridge, Guy, "Explainer: Ukrainian Nuclear Plant Shelled: Here's What We Know", in *Reuters*, 21 November 2022, https://www.reuters.com/world/europe/close-call-ukrainian-nuclear-plant-2022-11-21; Sabbagh, Dan, "Safety Fears as External Power to Zaporizhzhia Nuclear Plant Still out After Three Days", in *The Guardian*, 27 September 2025, https://www.theguardian.com/p/x3afn5; Trentham, Annie and Christina McAllister, "The Enduring Risk of Human Error at the Zaporizhzhia Nuclear Power Plant", in *Stimson Commentaries*, 22 February 2024, https://www.stimson.org/?p=91595.

[30] IAEA, *IAEA Director General Grossi's Initiative to Travel to Ukraine*, 4 March 2022, https://www.iaea.org/node/102041; and *IAEA Director General Briefs United Nations Security Council on Ukraine Nuclear Safety*, 15 April 2024, https://www.iaea.org/node/161363.

[31] Azizi, Hamidreza and Erwin van Veen, "The EU's Response to Israel's Assault on Iran: The Justified, the Hypocritical and the Vacuous", in *Clingendael Articles*, 1 July 2025, https://www.clingendael.org/node/19518.

and political ambivalence to collective inertia, even as the most acute nuclear security crisis unfolds on the continent. The legacy of the 1980s – marked by internal division, mandate disputes and the enduring challenge of disentangling humanitarian imperatives from the strategic calculations of military politics – continues to cast a long shadow.

One of the most significant implications of this legacy is the persistence of legal ambiguity. Article 56 of Protocol I remains the primary international legal provision governing attacks on nuclear installations, despite its narrow scope and ambiguous language. Its applicability is limited to nuclear electrical generating stations; it contains exceptions that allow for military necessity; and it offers little guidance on contemporary threats such as drone strikes, hybrid warfare or prolonged occupation. The result is a governance landscape in which the most severe risks associated with nuclear infrastructure remain inadequately regulated.

European states have been vocal in condemning Russian actions at Zaporizhzhia, yet they adopted far more cautious positions regarding Israeli and US strikes on Iranian infrastructure

A second implication concerns Europe's tendency to invoke norms selectively. European states have been vocal in condemning Russian actions at Zaporizhzhia, yet they adopted far more cautious positions regarding Israeli and US strikes on Iranian infrastructure. This discrepancy reflects enduring strategic calculations and alliance relationships, but it also weakens Europe's credibility as an advocate for consistent legal protections – and, most critically, undermines such legal protections themselves.

A third, closely related implication is the erosion of European norm entrepreneurship. Sweden's role in the 1980s as a champion of comprehensive protection has no contemporary equivalent. Today, with the concept of military necessity reinvigorated in the wake of the war in Ukraine, the political space for such advocacy has narrowed further. No European state has stepped forward to articulate a vision for strengthening legal safeguards or reviving multilateral discussions. This absence is significant given Europe's proximity to the Zaporizhzhia crisis and its longstanding investment in nuclear security.

A fourth implication concerns the institutional fragmentation of nuclear governance. Nuclear safety, nuclear security, and international humanitarian law operate in separate domains, each with its own mandates, institutions and epistemic communities. European policy has contributed to this fragmentation by investing heavily in nuclear safety and counter-terrorism measures while neglecting the challenges posed by interstate armed conflict. The lack of integration among these frameworks leaves significant vulnerabilities unaddressed, as the crisis in Ukraine has demonstrated.

Finally, the Zaporizhzhia crisis reveals the urgent need for new approaches. Military operations around nuclear facilities create risks that cannot be mitigated solely through technical safety measures

or political condemnation. They require legal clarity, operational guidelines and mechanisms for accountability. Europe's long-standing reluctance to engage in these discussions is no longer tenable in a world where nuclear facilities can become active theatres of conflict.

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