

Liability Protection for Offsite Damages Due to Radioactivity Released from Nuclear Plants

**David Lochbaum
November 7, 2025**



BACKGROUND

Office of Public Affairs

301.415.8200

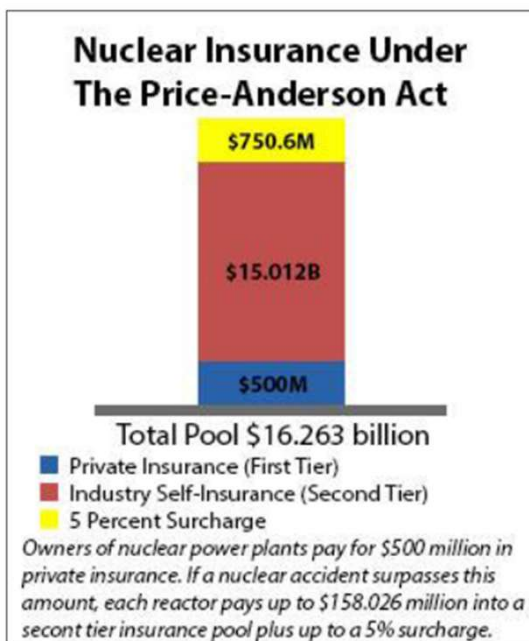
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Nuclear Insurance and Disaster Relief

Nuclear Insurance: Price-Anderson Act

The Price-Anderson Act became law on Sept. 2, 1957, to cover liability claims of members of the public for personal injury and property damage caused by a commercial nuclear power plant accident. The legislation helped encourage private investment in commercial nuclear power by placing a cap, or ceiling, on the total amount of liability each nuclear power plant licensee faced in the event of an accident. Over time, the “limit of liability” for a nuclear accident has increased the insurance pool to more than \$16 billion.



§ 140.11 Amounts of financial protection for certain reactors.



TOP

(a) Each licensee is required to have and maintain financial protection:

(1) In the amount of \$1,000,000 for each nuclear reactor he is authorized to operate at a thermal power level not exceeding ten kilowatts;

(2) In the amount of \$1,500,000 for each nuclear reactor he is authorized to operate at a thermal power level in excess of ten kilowatts but not in excess of one megawatt;

(3) In the amount of \$2,500,000 for each nuclear reactor other than a testing facility or a reactor licensed under section 104b of the Act which he is authorized to operate at a thermal power level exceeding one megawatt but not in excess of ten megawatts; and

(4) In an amount equal to the sum of \$500,000,000 and the amount available as secondary financial protection (in the form of private liability insurance available under an industry retrospective rating plan providing for deferred premium charges equal to the pro rata share of the aggregate public liability claims and costs, excluding costs payment of which is not authorized by section 170o.(1)(D) of the Act, in excess of that covered by primary financial protection) for each nuclear reactor which is licensed to operate and which is designed for the production of electrical energy and has a rated capacity of 100,000 electrical kilowatts or more: Provided, however, that under such a plan for deferred premium charges for each nuclear reactor that is licensed to operate, no more than \$158,026,000 with respect to any nuclear incident (plus any surcharge assessed under subsection 170o.(1)(E) of the Act) and no more than \$24,714,000 per incident within one calendar year shall be charged. *Except that*, where a person is authorized to operate a combination of 2 or more nuclear reactors located at a single site, each of which has a rated capacity of 100,000 or more electrical kilowatts but not more than 300,000 electrical kilowatts with a combined rated capacity of not more than 1,300,000 electrical kilowatts, each such combination of reactors shall be considered to be a single nuclear reactor for the sole purpose of assessing the applicable financial protection required under this section.

(b) In any case where a person is authorized under parts 50, 52, or 54 of this chapter to operate two or more nuclear reactors at the same location, the total primary financial protection required of the licensee for all such reactors is the highest amount which would otherwise be required for any one of those reactors; provided, that such primary financial protection covers all reactors at the location.

[25 FR 2944, Apr. 7, 1960, as amended at 34 FR 706, Jan. 17, 1969; 37 FR 3423, Feb. 16, 1972; 39 FR 5310, Feb. 12, 1974; 40 FR 7082, Feb. 19, 1975; 42 FR 49, Jan. 3, 1977; 42 FR 20140, Apr. 18, 1977; 44 FR 20632, Apr. 6, 1979; 54 FR 24158, June 6, 1989; 58 FR 42852, Aug. 12, 1993; 63 FR 39016, July 21, 1998; 68 FR 46930, Aug. 7, 2003; 70 FR 61888, Oct. 27, 2005; 72 FR 49565, Aug. 28, 2007; 73 FR 56452, Sep. 29, 2008; 75 FR 16646, Apr. 2, 2010; 78 FR 41836, Jul. 12, 2013; 81 FR 96348, Dec. 30, 2016; 83 FR 48202, Sep. 24, 2018; 88 FR 60566, Sep. 5, 2023; 88 FR 71990, Oct. 19, 2023; 89 FR 106253, Dec. 30, 2024]

Section 140.11 in Title 10 of the Code of Federal Regulations requires nuclear plant owners to obtain the \$500,000 of private liability insurance for Tier 1 of the Price-Anderson protection.

§ 140.21 Licensee guarantees of payment of deferred premiums.



TOP

Each licensee required to have and maintain financial protection for each nuclear reactor as determined in § 140.11(a)(4) shall at the issuance of the license and annually, on the anniversary of the date on which the indemnity agreement is effective, provide evidence to the Commission that it maintains one of the following types of guarantee of payment of deferred premium in the amount specified in § 140.11(a)(4) for each reactor it is licensed to operate:

- (a) Surety bond,
- (b) Letter of credit,
- (c) Revolving credit/term loan arrangement,
- (d) Maintenance of escrow deposits of government securities,
- (e) Annual certified financial statement showing either that a cash flow (i.e., cash available to a company after all operating expenses, taxes, interest charges, and dividends have been paid) can be generated and would be available for payment of retrospective premiums within three (3) months after submission of the statement, or a cash reserve or a combination of cash flow and cash reserve, or
- (f) Such other type of guarantee as may be approved by the Commission.

[42 FR 50, Jan. 3, 1977; 71 FR 15012, Mar. 27, 2006; 74 FR 62686, Dec. 1, 2009; 79 FR 38769, Jul. 9, 2014]

Section 140.21 in Title 10 of the Code of Federal Regulations requires nuclear plant owners to guarantee payment of the deferred premiums for Tier 2 of the Price-Anderson protection.



BUT, and it's a big but.



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The only insurance pool writing nuclear liability insurance, American Nuclear Insurers, is comprised of U.S.-based property-casualty insurance and reinsurance companies. The average annual premium for a single unit reactor site in 2025 is approximately \$1.1 million.

Claims resulting from nuclear accidents are covered under Price-Anderson; for that reason, all U.S. property and liability insurance policies exclude nuclear accidents. Claims can include any incident (including those caused by theft or sabotage) in transporting nuclear fuel to a reactor site; storing nuclear fuel or waste at a site; **during operation of a reactor**, including the discharge of radioactive effluent; and transporting irradiated nuclear fuel and nuclear waste from the reactor.

The nuclear industry and its regulator assume that risk nearly vanishes when all reactors at a nuclear plant site permanently shut down. Plant owners apply for, and the NRC approves, exemptions from the offsite liability protection under Tiers 1, 2, and 3 of Price-Anderson.

NUCLEAR REGULATORY COMMISSION

Docket Nos. 50-003, 50-247, and 50-286

Holtec Decommissioning International, LLC,

Holtec Indian Point 2, LLC, and Holtec Indian Point 3, LLC

Indian Point Nuclear Generating Unit Nos. 1, 2, and 3

Exemption

Therefore, the NRC staff has concluded that an exemption from 10 CFR 140.11(a)(4), which would permit the licensee to lower the IPEC primary insurance levels and to withdraw from the secondary retrospective premium pool at the requested effective date of 15 months after the permanent cessation of power operations, is in the public interest.

Dated: November 16, 2023

For the Nuclear Regulatory Commission.



Signed by Marshall, Jane
on 11/14/23

NRC's exemption reduced the Tier 1 requirement from \$400 to \$100 million and dropped IPEC from the Tier 2 coverage.

Jane Marshall, Director,
Division of Decommissioning, Uranium
Recovery and Waste Programs,
Office of Nuclear Material Safety
and Safeguards.

There's no irradiated fuel in the Unit 1, 2 and 3 reactor vessels and no irradiated fuel in the Unit 1, 2 and 3 spent fuel pools.

All the irradiated fuel is in the Independent Spent Fuel Storage Installation (ISFSI) behind robust chain-link fences.

ISFSI pad storage

- ISFSI pad located on-site
- The ISFSI Pad has a dedicated full-time security force 24 hours a day, 365 days a year.



If ISFSI cask(s) pose neat zero hazard, why must they be protected every minute of every day?

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Why is the spent fuel generated by Indian Point Units 1, 2 and 3 over the past five decades in the ISFSI?

Because the federal government has been unable to open a geological repository for spent fuel as required by the Nuclear Waste Policy Act of 1982 as amended in 1987.

The NWPA requires that the geological repository be capable of isolating spent fuel (actually, the radioactivity therein) from the environment for at least 10,000 years.

Spent fuel is so hazardous that \$500,000 of private liability insurance is needed when it is stored at the site of an operating plant.



Spent fuel is so hazardous that it must be isolated from the environment for 10,000 years when it is in a repository.

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Spent fuel is so hazardous that it must be isolated from the environment for 10,000 years when it is in a repository.

Yet somehow spent fuel at an non-operating nuclear plant is so non-hazardous that it can be stored onsite behind chain-link fences with lessened liability insurance protection

The risk of an accident is less for irradiated fuel in an ISFSI than for irradiated fuel in a spent fuel pool and for irradiation fuel in the core of an operating reactor.

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Is the risk of a terrorist act less for irradiated fuel in an ISFSI than for irradiated fuel in a spent fuel pool and for irradiation fuel in the core of an operating reactor?

Without the CFR 140.11 exemption, people living around Indian Point would get compensated for a terrorist act causing more than \$100 million in damages.

The Price-Anderson Act: 2021 Report to Congress

Public Liability Insurance and Indemnity Requirements for an Evolving Commercial Nuclear Industry

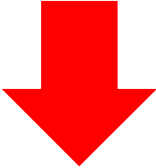
Manuscript Completed: December 2021

Date Published: December 2021

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2.3.6 Terrorism Coverage



ANI's policies provide coverage for liability arising from a terrorist act. There are no terrorism exclusions. ANI is able to provide terrorism coverage because it is reinsured by the U.S. Government under the Terrorism Risk Insurance Program Reauthorization Act of 2015. If a terrorist act meets the prerequisites under the program, ANI would be reimbursed for any amounts paid subject to a pre-determined deductible and retention. If the Terrorism Risk Insurance Program Reauthorization Act is discontinued, ANI likely would limit coverage for all its insureds to one shared industry aggregate limit instead of separate policy limits. This was the case following the terrorist acts of September 11, 2001, before the U.S. Government enacted the Terrorism Risk Insurance Act of 2002 and the subsequent extensions.



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Claims resulting from nuclear accidents are covered under Price-Anderson; for that reason, all U.S. property and liability insurance policies exclude nuclear accidents.

NRC knows that the public cannot buy insurance against nuclear disasters because Price-Anderson covers it (sometimes, some places).

And NRC knows that Price-Anderson coverage of ISFSIs is considerably less than the \$16 billion covering operating reactors.



Perhaps terrorism is no longer a real threat.



Perhaps terrorism is no longer a real threat.

ISFSI pad storage

- ISFSI pad located on-site
- The ISFSI Pad has a dedicated full-time security force 24 hours a day, 365 days a year.



By the way, the NRC periodically performs force-on-force tests of security at operating nuclear plants. The NRC does not conduct force-on-force tests of ISFSI security at permanently shut down nuclear plants.

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Hopefully, terrorists will lose as much interest in ISFSIs at permanently shut down nuclear plants as has the NRC.



Since the federal government's failure caused decades of spent fuel to remain at Indian Point and the federal government failed to fully insure the public against a terrorist act causing extensive damage, who will compensate the innocent victims?

WHO?