



# Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

## License Renewal Concerns

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February 22, 2011



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# License Renewal Concerns 1 & 2

- ① The NRC's license renewal process does not ensure equivalent protection of public safety against the risks from aging and new nuclear plants.**
- ② The NRC's license renewal process must conform with 10 CFR 50.100.**



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# License Renewal Concern #1

- ① **The NRC's license renewal process does not ensure equivalent protection of public safety against the risks from aging and new nuclear plants.**



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# License Renewal Concern #1

## Scenario:

**The NRC issues a new regulation supported by a regulatory analysis concluding either that its safety benefits outweigh its costs or that its safety gain is worth any cost.**



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# License Renewal Concern #1





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# License Renewal Concern #1

**Homer Simpson's aging Springfield nuclear plant is either grandfathered from the new regulation or granted an exemption from it because the safety gain over the remaining X years of the plant's lifetime do not justify the costs to comply.**



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# License Renewal Concern #1

**The Springfield nuclear plant licensee later seeks and obtains a 20-year extension to the operating license based largely on the determination that aging management programs will prevent unacceptable erosion from current safety margins.**



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# License Renewal Concern #1

**No one checked whether the grandfathering and exemptions from regulations for the Springfield nuclear plant remained as valid for  $X + 20$  years as they had for  $X$  years.**



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# License Renewal Concern #1

**The Springfield nuclear plant licensee later seeks and obtains a second 20-year extension to the operating license based on the determination that aging management programs will prevent unacceptable erosion from current safety margins.**



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# License Renewal Concern #1

**No one checked whether the grandfathering and exemptions from regulations for the Springfield nuclear plant remained as valid for  $X + 40$  years as they had for  $X$  years.**



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# License Renewal Concern #1

**If the Springfield nuclear plant shut down at the end of its 40-year license and a New Springfield nuclear plant started up to replace it, that new reactor would be required to meet today's regulations and would not inherit any of the grandfathering and exemptions.**



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# License Renewal Concern #1

**The license renewal process should identify all deltas between a reactor's licensing basis and today's regulations and formally evaluate whether each delta provides equivalent protection.**



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# License Renewal Concern #1

**In other words, the license renewal process must formally verify that all the justifications for grandfathering and exemptions for  $X$  years remain valid when the durations are later changed to  $X + 20$  and then  $X + 40$  years.**



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# License Renewal Concern #1

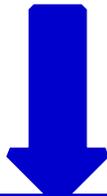
**Example: NRC closed USI A-43 in 1985 by revising containment sump blockage criteria that new plants would have to meet, but did not alter the criteria applied to reactors then operating.**



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# License Renewal Concern #1



Safety Level – New Reactor

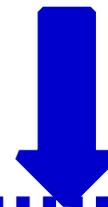


Safety Level – Old Reactor

**Aging Management Programs are intended to protect against erosion of safety margins.**

**License Renewal Process must formally ensure that aging of the regulations has not significantly eroded safety margins.**

OR



Safety Level – Old Reactor



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# License Renewal Concern #2

**② The NRC's license renewal process must conform with 10 CFR 50.100.**



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# License Renewal Concern #2

**A license, permit, or standard design approval under parts 50 or 52 of this chapter may be revoked, suspended, or modified, in whole or in part, for any material false statement in the application or in the supplemental or other statement of fact required of the applicant; or because of conditions revealed by the application or statement of fact of any report, record, inspection, or other means which would warrant the Commission to refuse to grant a license, permit, or approval on an original application** (other than those relating to §§ 50.51, 50.42(a), and 50.43(b)); ... [boldfacing and underlining added at no additional cost]

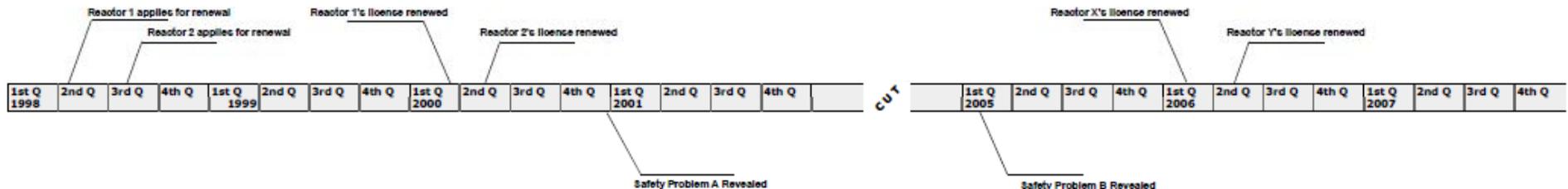
**Conditions, like submerged cabling and buried piping, had been revealed that the NRC requires current and future license renewal applicants to address. But the NRC did not require licensees holding renewed licenses to address them.**



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# License Renewal Concern #2



**Reactors X and Y had to address safety problems A and B before being relicensed, but reactors 1 and 2 never had to do so.**



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## License Renewal Concern #2

**When a safety problem is so significant that NRC requires applicants to address it before their licenses can be renewed, 10 CFR 50.100 mandates, not suggests, that licensees holding renewed licenses address the safety problem, too.**



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## License Renewal Concern #2

**The public deserves protection  
against known safety problems.**

**The public expects protection  
against known safety problems.**

**The public is not being protected  
against known safety problems.**