

**CRITIQUE OF THE "SENSE OF CONGRESS" CONCERNING THE ROLE OF
NUCLEAR POWER AND SPENT NUCLEAR FUEL REPROCESSING**
Nuclear Energy Information Service
June 16, 2009

O: JOINT STAFF S.L.C.
AMENDMENT NO.III Calendar No.III
Purpose: To improve nuclear energy policy.
IN THE SENATE OF THE UNITED STATES—111th Cong., 1st Sess.
(no.) _____
(title) _____
Referred to the Committee on _____ and
ordered to be printed _____
Ordered to lie on the table and to be printed
AMENDMENT intended to be proposed by

Viz:

1 At the end of subtitle B of title III, add the following:
2 SEC. 312. SENSE OF CONGRESS REGARDING THE STRATEGIC ROLE OF NUCLEAR
ENERGY.

4 (a) FINDINGS.—Congress finds that—

5 (1) nuclear energy is a strategic technology and
6 should be recognized for—

7 (A) providing clean and secure domestic
8 energy for the United States; and

9 (B) reducing greenhouse gases;

10 (2) the use and expansion of nuclear energy
11 technology is essential for—

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1 (A) the production of electricity and other
2 industrial applications; and

3 (B) the reduction of greenhouse gas emissions;

5 (3) it is the continuing obligation of the Federal
6 Government to provide for the safe disposal of spent
7 nuclear fuel and high-level radioactive waste, including the development of any analysis
or assessment

9 that is required to establish a sustainable, long-term
10 program for the management of spent nuclear fuel
11 and high-level radioactive waste;

12 (4) spent nuclear fuel and high-level radioactive
13 waste should be stored in a limited number of se-
14 -cure, centralized facilities;

15 (5) to encourage State and local support for the
16 establishment of centralized spent nuclear fuel and
17 high-level radioactive waste storage facilities, the

Comment [DAK1]: Define "clean." Is a 6million gallon tritium leak at the Braidwood NPP "clean" in Congress' esteemed estimation? Is a June 2009 tritium leak at the Dresden NPP 150 times higher than the EPA water standard henceforth to be considered "clean"? I could go on -- but you should be getting the idea by now. --DK--

Comment [DAK2]: The expansion of nuclear power will NOT and CANNOT contribute to the "reduction of greenhouse gas emissions" in a timely or cost-effectively enough manner. If Congress persists in making this absurd claim, it needs to include such measures as 1.) holding one's breath; 2.) halting the feeding of grains to cattle; etc. Further, and for a variety of economic and political reasons and realities, the expansion of nuclear power will kill the expansion of sustainable renewable energy -- the REAL reducers of greenhouse gas emissions. You people know better than this. Why are you so disingenuous? --DK--

Comment [DAK3]: Nuclear power is not ESSENTIAL for the production of electricity, providing at best 19% of our electricity. When EPRI and the National Labs and others REPEATEDLY reach the same conclusion -- the aggressive energy efficiency and conservation could displace between 24-44% of all the electricity generated (i.e. 1.26 to 2.32 TIMES the ENTIRE output of the entire nuclear industry operating at its best), and do it at a far lower cost, then nuclear can hardly be viewed as "essential." If anything is is superfluous. --DK--

Comment [DAK4]: See Comment 2 above.

Comment [DAK5]: No. SNF (spent-nuclear fuel) should be DISPOSED OF in a limited number of secure centralized facilities. SNF can and is being "stored" at reactor sites -- and if you believe the statements of the nuclear industry and the NRC, it can remain there "safely" for at least 100 years. You can't have it both ways: it is either a finding that 1.) it is NOT being stored safely now, and therefore must be moved; or 2.) it is safe there for 100 years. These are MUTUALLY EXCLUSIVE assertions by the industry and the regulators. Fi ... [1]

Comment [DAK6]: If this is enacted, it will MOST CERTAINLY result in making Illinois a regional storage site; and most probably, given the poor history of both Congress and DOE in dealing with the SNF problem -- it will leave Illinois as THE DE FACTO SNF storage/disposal facility INDEFINITELY. Any politician endorsing this concept of centralized storage facilities (CSFs) will have ... [2]

18 Federal Government should expedite the conduct of
19 a sustainable long-term management program;
20 (6) the reprocessing of spent nuclear fuel
21 may—
22 (A) reduce the burden on geological reposi-
23 -tories for ultimate waste disposal; and
24 (B) provide additional fuel for nuclear re-
25 -actors; and

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1 (7) advanced technologies in spent fuel recy-
2 -cling and advanced reactors may—
3 (A) further reduce the volume and radioac-
4 -tivity of high-level radioactive waste; and
5 (B) provide for a closed fuel cycle that will
6 generate additional fuel for nuclear reactors.

7 (b) SENSE OF CONGRESS.—It is the sense of Con-
8 -gress that the Federal Government should reaffirm the
9 policy of the United States—

10 (1) to support the use and expansion of nuclear
11 energy technology for—
12 (A) the production of electricity and other
13 industrial applications; and
14 (B) the reduction of greenhouse gas emis-
15 -sions; and

16 (2) to fulfill the obligation of the Federal Gov-
17 -ernment with respect to spent nuclear fuel and high
18 level radioactive waste.

19 SEC. 313. ADVANCED FUEL RECYCLING PROCESS DEVELOP-
20 MENT.

21 Section 953 of the Energy Policy Act of 2005 (42
22 U.S.C. 16273) is amended—

23 (1) in subsection (b), by striking “Research”;
24 and
25 (2) by adding at the end the following:

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1 “(e) ADVANCED FUEL RECYCLING PROCESS DEVEL-
2 -OPMENT.—
3 “(1) DEFINITION OF ADVANCED FUEL RECY-
4 -CLING PROCESS.—In this subsection through sub-
5 -section (g), the term ‘advanced fuel recycling pro-
6 cess’ means an integrated, proliferation-resistant,

Comment [DAK7]: ...and MAY NOT. Given the things that Congress allegedly has found (God knows where they looked), this "may" will most definitely become a MAY NOT. --DK--

Comment [DAK8]: This is an indefensible assertion unless you include: 1.) the time frame you are talking about; and 2.) the specific types of nuclides you are referring to (i.e. shorter-lived fission products; transuranics; etc.). Besides-- unless it falls on you, the volume is not the primary important safety characteristic; the radioactivity IS.

Comment [DAK9]: Advanced reactors with closed fuel cycles have been proposed before; and not only did they not work, they are also de facto self-contained BOMB PRODUCTION FACILITIES if sold into the wrong hands. Historically is was demonstrated that the only way to make these kinds of facilities economically viable was to sell ALL aspects of the closed cycle as a single package on the same site -- guaranteeing their sale as complete potential bomb factories. This was patiently explained in person to a previously clueless Sen. Carol Mosely Braun, and a should-have-known-better Sen. Paul Simon. But because they were so enamored with the prospect of new jobs at Argonne National Lab, they were willing to unleash this enormous nuclear weapons proliferation potential on the world.

Comment [DAK10]: As above. This is total fiction and wishful thinking, the latter not being sound energy, climate disruption nor nuclear proliferation policy. --DK--

Comment [DAK11]: As above. You put everything on one site, forget nuclear non-proliferation. --DK--

Comment [DAK12]: Proliferation-resistant is not the same as proliferation-proof. Physicist Frank von Hippel states that going to this so-called advanced reprocessing technology reduces the proliferation resistance of spent-nuclear fuel (SNF) by nearly a factor of 100 compared to un-reprocessed SNF.

7 spent nuclear fuel recycling or transmutation process
8 that—
9 ‘ (A) does not separate pure plutonium;
10 ‘(B) reduces the burden on geological re-
11 -positories for ultimate waste disposal;
12 ‘(C) minimizes environmental and public
13 health and safety impacts; and
14 ‘(D) is an alternative to reprocessing tech-
15 -nologies deployed prior to the date of enactment
16 of this subsection.
17 ‘(2) DESIGN, CRITERIA, AND EVALUATIONS.—
18 In addition to the activities authorized under sub-
19 -section (a), the Secretary shall—
20 ‘(A) complete the development and testing
21 of a complete and integrated process flowsheet
22 for all steps involved in an advanced fuel recy-
23 -cling process;

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1 ‘(B) characterize the waste streams result
2 ing from all steps in the advanced fuel recycling
3 process identified under subparagraph (A);
4 ‘(C) develop waste treatment processes
5 and designs for disposal facilities for waste
6 streams characterized under subparagraph (B);
7 ‘(D) on completion of sufficient technical
8 progress in the program, as evaluated under
9 subsection (g)—
10 ‘(i) develop a generic environmental
11 impact statement for the technologies de-
12 -veloped under this subsection; and
13 ‘(ii) conduct design and engineering
14 work sufficient to develop firm cost esti-
15 -mates with respect to the development of
16 advanced fuel recycling processes; and
17 ‘(E) cooperate with the Nuclear Regu-
18 -latory Commission in making facilities of the
19 Department available to the Commission for
20 purposes of the Commission carrying out inde-
21 -pendent, confirmatory research as part of the li-
22 -censing process for facilities constructed or
23 used under the program.
24 ‘(f) REGULATORY STANDARDS.—

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Comment [DAK13]: This is not accurate; see above for part of the explanation. But note that the "transmutation" of some of the larger transuranic elements into smaller fission-products does NOT always decrease the lifespan for disposal care. Some of the new fission products created have LONGER life-spans and hence will remain as a threat longer than this statement asserts, while also in some cases being MORE of an immediate radioactive threat. --DK--

Comment [DAK14]: Compared to what exactly? And why should this new minimal level be acceptable? Perhaps the minimal level attainable will even exceed current standards for exposure. Should the public then tolerate this new radiologic assault above even current inadequate standards which should be revised downwards according to experts today?

1 “(1) IN GENERAL.—The Nuclear Regulatory
2 Commission shall have licensing and related regu-
3 -latory authority under the Atomic Energy Act of
4 1954 (42 U.S.C. 2011 et seq.) over facilities that
5 use an advanced fuel recycling process.
6 “(2) REVISION OF APPLICABLE STANDARDS.—
7 “(A) NUCLEAR REGULATORY COMMIS-
8 -SION.—The Nuclear Regulatory Commission
9 shall establish standards for protection against
10 radiation (including occupational exposures) re-
11 -sulting from activities at facilities that use an
12 advanced fuel recycling process, including facili-
13 -ties to fabricate fuel enriched with actinide ele-
14 -ments other than uranium.
15 “(B) ENVIRONMENTAL PROTECTION AGEN-
16 -CY.—The Administrator of the Environmental
17 Protection Agency shall establish generally ap-
18 -plicable environmental standards for the protect-
19 -tion of the public and the general environment
20 from radioactive material released from facili-
21 -ties that use an advanced fuel recycling process,
22 including facilities to fabricate fuel enriched
23 with actinide elements other than uranium.
24 “(g) COMPREHENSIVE EVALUATION.—

Comment [DAK15]: This in NO WAY guarantees the health and safety of the public and the environment. The NRC has no credibility with the public. They are industry lap-dogs incapable of supporting what the public wants if it conflicts with the nuclear industry dictates. They are rubber stamps of all things nuclear. Recall -- everything done by the Third Reich was completely legal under their system of regulation too. Doesn't mean the public there was protected in any way. --DK--

1 “(1) IN GENERAL.—On completion of sufficient
2 technical progress in the program under subsection
3 (e), the Secretary shall direct the Nuclear Energy
4 Advisory Committee and the Nuclear Waste Tech-
5 -nical Review Board to evaluate and prepare reports
6 concerning the readiness of the program for detailed
7 design, engineering, licensing, and deployment of ad-
8 -vanced fuel recycling processes.
9 “(2) REPORT.—The Secretary shall submit to
10 Congress the reports of the Nuclear Energy Advi-
11 -sory Committee and the Nuclear Waste Technical
12 Review Board described in paragraph (1) with the
13 first budget request submitted to carry out activities
14 covered by the reports.”.

Page 1: [1] Comment [DAK5]

Dave

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No. SNF (spent-nuclear fuel) should be DISPOSED OF in a limited number of secure centralized facilities. SNF can and is being "stored" at reactor sites -- and if you believe the statements of the nuclear industry and the NRC, it can remain there "safely" for at least 100 years. You can't have it both ways: it is either a finding that 1.) it is NOT being stored safely now, and therefore must be moved; or 2.) it is safe there for 100 years. These are MUTUALLY EXCLUSIVE assertions by the industry and the regulators. Finally, adding more "storage" facilities will NOT get rid of the need, use and requirement of having operating spent fuel pools and dry-cask storage; it will only add MORE storage facilities, not reduce any; thus adding even a "limited number of secure centralized facilities" INCREASES the number not decreases it.

Page 1: [2] Comment [DAK6]

Dave

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If this is enacted, it will MOST CERTAINLY result in making Illinois a regional storage site; and most probably, given the poor history of both Congress and DOE in dealing with the SNF problem -- it will leave Illinois as THE DE FACTO SNF storage/disposal facility INDEFINITELY. Any politician endorsing this concept of centralized storage facilities (CSFs) will have to face and defend this criticism back home and in public, since Illinois will be taking in from other states even MORE SNF/HLRW than it already has -- which is currently the highest amount in the US. Whoever supports CSF will be responsible for making Illinois the "new Nevada/Yucca Mt." for the foreseeable future. --DK--