ILLINOIS ENERGY TRANSFORMATION #28:

Getting Our Money’s Worth with Nuclear Power? Caveat Emptor!

Feb. 12, 2022

The recent $694 million bailout of 6 Constellation (nee Exelon) nuclear reactors in Illinois was not good news for ratepayers, Illinois or a renewable energy future. It was made recently worse by the announcement by Constellation Energy (the Exelon nuclear spin off LLC corporation) that it would seek permission from the U.S. Nuclear Regulatory Commission (NRC) to operate its 11 Illinois reactors for up to 80 years – 40 more than the originally granted operating license, and 20 years beyond the 20-year operating license extensions already granted all Illinois reactors except the single Clinton reactor.

Just when you thought things couldn’t not possibly get worse, along comes two reports from the NRC’s Office of the Inspector General stating that counterfeit parts have been discovered in an unidentified number of unnamed U.S. nuclear plants. Further, the Report states, the number may be greatly underreported given the very lax NRC requirements for reactor operators to report such findings themselves.

The issue of counterfeit, fraudulent, sub-standard and generic parts is tragically not new. Reports of this kind have been around for decades. The NRC promised to look into them; change its reporting system; etc. And today – in 2022 – the OIG “recommended that the NRC should improve its oversight of CFSI [Counterfeit, Fraudulent, and Suspect Items] by clarifying and communicating how the agency collects, assesses, and disseminates information regarding CFSI, and by improving staff awareness of CFSI and its applicability to reactor inspections,” in yet another round of regulatory blah, blah, blah, to borrow a phrase from climate activist Greta Thunburg,

Meanwhile, back in reality, a Feb.7 NRC Integrated Inspection Report for Constellation’s Dresden nuclear facility 55 miles southwest of Chicago reported the following:

Observation: Equipment Reliability Trend 71152
The inspectors performed a semiannual review of issues entered into the corrective action program (CAP) and a cognitive review of plant observations over the period of June 1, 2021, to December 31, 2021, to identify any potential trends that might indicate the existence of a more significant safety issue. Based on these reviews, the inspectors concluded that there had been a decline in equipment reliability throughout 2021 that had resulted in a number of operational issues. The inspectors conducted further evaluation of the issues to determine if the underlying causes and contributors to the equipment issues were well-understood and addressed with the licensee’s corrective actions and improvement plans. The inspectors identified gaps in the thoroughness of licensee evaluation of issues, consideration of the extent of condition and causes, and evaluation of previous occurrences of the issues. In many cases, the issues had been previously identified by plant personnel or through equipment failures/degradation, however, the inspectors noted planned corrective actions had not been sufficiently prioritized or implemented to fully resolve the deficiencies. In a few other instances, the impact of a change to the SSC’s preventive maintenance strategy or modification to the design or monitoring of a system wasn’t fully understood to completely evaluate all potential impacts of the change; and in some cases, led to equipment
failures/degradations. The inspectors discussed the specific issues with the licensee and highlighted the potential underlying causes (behavioral components) to ensure that the trend was fully understood, and actions were being developed to ensure the holistic issue was being addressed as part of the equipment reliability improvement plan for 2022. [p. 18; emphasis ours]

While the NRC’s overall evaluation indicates that nothing major is wrong at Dresden, the juxtaposition of these two revelations should be a cause of concern and greater oversight by both the NRC, and the Illinois Dept, of Nuclear Safety’s onsite resident observer, particularly given Constellation’s stated intention to operate reactors in Illinois for up to 80 years (ask any 1942 Ford or Chevy owner).

A Tweet by Union of Concerned Scientists staff scientist and nuclear safety expert Dr. Ed Lyman regarding this evaluation report begs an interesting question:

Edwin Lyman@NucSafetyUCS1/3: An @NRCgov inspection at the Dresden #nuclear plant found "a decline in equipment reliability" in 2021 resulting in "a number of operational issues." What are #Illinois ratepayers getting for the hundreds of millions in subsidies they are providing?

A reasonable question, given that another round of NRC license extensions for these aging and self-admittedly uneconomic reactors can only mean more ratepayer-funded nuclear bailouts as Constellation and its post-Madigan political allies in Illinois government will plead for more bailouts as worn-out $250-million steam generators (or other expensive safety-related equipment) need replacing at Byron or Braidwood, or legions of counterfeit parts are discovered needing replacement.

Shortly after receiving its bailout, Exelon announced that it, “is moving quickly to fill 650 vacant positions across the state and jumpstart more than $300 million is capital projects over the next five years at Illinois nuclear stations.” [Source” Exelon press release, Sept. 29, 2021]

Will this expenditure solve some of these CFSI and other issues? Perhaps not.

A troubling communication from a Grundy County resident shortly after Exelon received its $694 million CEJA bailout in Fall 2021 indicates a potentially different use for at least some those funds. The source stated,

“[Some] Com Ed … retiree’s have been trying to get their [kids] on with Exelon in their desired departments for a couple years and were told no, they couldn’t do it.  

“[They] contacted department heads of middle management after the [CEJA] vote and were told that since they “got the money” they are going on a “massive hiring spree”... "adding more people for the bigger numbers when they want more money.”

Aside from the fact that somehow Exelon managed to run Illinois reactors to at least NRC’s level of acceptably safe operation without those 650 employees (and without endangering the State), the idea that recent bailout money will be used to (“legally”) grease the next round of political pressure in favor of future bailouts calls into question whether doubling the CEJA bailout money initially recommended by hired auditor Synapse Energy Economics was a great idea.

Since CEJA did not explicitly mandate how these nuclear bailout funds were to be used, there is no guarantee that Constellation will be using them or have them available should the NRC meaningfully address the CFSI issue and order costly retrofits.
You can't build an energy future by bailout out the past. NEIS has previously stated that trading more plutonium (and high-level radioactive waste) for less carbon is terrible and unnecessary energy policy. Given the apparent "good enough is good enough" attitude of the NRC and nuclear plant owners and their political allies, will this level of operation provide the State with even "good enough" protection and safety for uneconomic reactors operating for 60-80 years? How many more nuclear bailouts will be asked of Illinois ratepayers? And for what purposes in reality?

Indeed – does “caveat emptor” even sufficiently describe the situation?