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Beyond Nuclear Backgrounder:

BURNING DOWN THE HOUSE ON NUCLEAR REGULATIONS!

Palisades: Lessons NOT Learned from Entergy's Prior Fire Safety and Security Violations

On July 9, 2016 WWMT-TV 3 in Kalamazoo, Michigan revealed “fire tour anomalies” at Entergy Nuclear’s problem-plagued Palisades atomic reactor on the Lake Michigan shore in Covert, Michigan. WWMT’s I-Team investigative reporter, Cody Combs, was tipped off by a security guard department whistle-blower. Combs interviewed Beyond Nuclear’s Kevin Kamps, a long-time Palisades watchdog, about the matter. Beyond Nuclear published a backgrounder re: fire and security risks at Palisades in light of this whistle-blower revelation, documenting a long history of such problems at Palisades, throughout Entergy’s reactor fleet, and nation-wide throughout the entire nuclear power industry. The backgrounder, and associated news media coverage, is posted online at: <http://www.beyondnuclear.org/security/2016/7/9/beyond-nuclear-backgrounder-re-fire-security-risks-at-palisa.html>.

In the following days, Beyond Nuclear’s Reactor Oversight Project director, Paul Gunter, learned from a reliable source that some 22 security guards have been suspended from their duties at Palisades, for what most likely boils down to allegedly faking having made fire watch rounds, but not actually having done so. This is a significant fraction of the Palisades security guard force, which raises deep concerns about both security and fire risks at the age-degraded, financially-failing atomic reactor. Gunter, a decades-long watchdog on fire risks at atomic reactors, also learned that the FBI has joined the U.S. Nuclear Regulatory Commission’s (NRC) Office of Investigations (OI) at the Palisades site, which could well indicate the seriousness of the alleged, but still murky, wrongdoing.

SECURITY RISKS

These revelations beg the question: does Palisades have enough qualified, certified, trained, and well rested guards, given the large number of suspensions, to secure the atomic reactor and its high-level radioactive waste storage pool, against a terrorist attack?

Entergy is apparently pressuring its remaining security guards to sign waivers, allowing them to work as much as 75 hours per week, week after week. NRC has regulations against safety significant workforce fatigue, including for security guards. But the waiver is a loophole big enough to drive a truck through! When asked point blank by Beyond Nuclear two years ago about security guard fatigue at Palisades, Entergy Site Vice President Tony Vitale answered that work-week limits were being complied with. (See the bolded section on Page 6 in Beyond Nuclear’s “Notes and Thoughts” from an Entergy guided tour of Palisades on June 11, 2014: <http://www.beyondnuclear.org/home/2014/6/11/concerned-citizens-and-environmental-group-reps-tour-entergy.html>). Later, Beyond Nuclear learned of this waiver trick Entergy has played to its advantage – and the disadvantage of its own security guards, as well as the at-risk public

downwind and downstream – an end run, with NRC complicity, around fatigue regulations meant to protect workers, and the public.

Similar -- essentially forced -- excessive overtime has led to security failures in the past. At Palisades itself, a security guard forced to work 72-hour work-weeks, for month after month, in the aftermath of the 9/11 terrorist attacks, suffered a nervous breakdown on the job. She did so while heavily armed, and with access to safety-critical areas of the plant. Luckily, neither she, nor anyone else, was physically harmed. (See: "Guards at Nuclear Plants Say They Feel Swamped by a Deluge of Overtime," *New York Times*, Oct. 20, 2002.)

In the immediate aftermath of 9/11, Entergy, and other nuclear utilities, worked their security guards such dangerously long hours in order to save money on the training of additional guards, as well as the added expense of paying new guards benefits, as opposed to just paying its old guards overtime.* The Project on Government Oversight (POGO) exposed such abuses, with a focus on Entergy's Indian Point nuclear power plant very near New York City, in September 2002. (See: <http://www.pogo.org/our-work/reports/2002/nss-npp-20020912.html>) Incredibly, such abuses and security vulnerabilities appear to be continuing, 15 years after the 9/11 attacks.

[*To add insult to injury, Entergy did not pay the guards for their excessively long hours at proper, legally required overtime rates. Wronged security guards in multiple states, including in Michigan at Palisades, have sued Entergy in court; some have won court orders against Entergy, forcing the company to pay its security guards back pay for these long overdue overtime wages.]

Working such exhausting long hours, week after week, how can security guards be expected to be at their best, if the worst happens, in terms of a terrorist attack at Palisades? They can't. Entergy and the U.S. Nuclear Regulatory Commission (NRC) are to blame for this situation of overworked, exhausted security guards, not the employees themselves.

FIRE RISKS

For how many weeks, months -- or even years -- did Palisades employees fake their fire watch patrols? Given this same fraud has been documented at Entergy's Waterford nuclear power plant in Louisiana (see the following section about the light shed by Waterford's past violations on Palisades' current violations), this begs the question -- is this a fleet-wide fraud at a dozen Entergy nuclear power plants across the country?

But why must security guards be burdened with the added responsibility of making fire watch rounds in the first place? Why didn't Entergy install sufficient fire detection and suppression equipment a decade ago, when it took ownership of the atomic reactor?

Fire departments urge ordinary people to install adequate smoke detectors in their living space, but NRC doesn't require the same basic fire protections at atomic reactors?

If an undetected fire were to spread to safety-significant systems, structures, or components, a reactor meltdown or high-level radioactive waste storage pool fire could result. At Palisades, a catastrophic release of hazardous radioactivity could result, killing and injuring many thousands of people downwind and downstream, up the food chain, and down the generations. More than \$100 billion in property damages could result.

As Palisades is located on the Great Lakes shoreline, Chicago's drinking water supply -- Lake Michigan -- could be radioactively ruined for generations to come. As Flint has shown, poisoning of the drinking water supply can not only paralyze the economy, and ruin property values, it can injure the most vulnerable -- children, pregnant women, and the fetus in their womb -- and it can even kill.

Those are the kinds of risks being taken at Palisades. As UBS energy analysts have advised, Palisades should be permanently closed by spring 2017 at the latest. Given the fire and security risks, Palisades should be closed today – although its high-level radioactive waste storage pool, and outdoor dry cask storage, still need to be secured against attack, fire, and other risks, even after permanent reactor de-fueling.

REVELATIONS FROM SIMILAR PRIOR VIOLATIONS AT ENERGY'S WATERFORD NUCLEAR POWER PLANT IN LOUISIANA COULD SHED LIGHT ON CURRENT VIOLATIONS AT PALISADES

Two NRC documents, obtained by Beyond Nuclear's Gunter, reveal fire watch and other related violations at Entergy's Waterford atomic reactor in Louisiana. Unfortunately, this cautionary tale did not prevent a similar recurrence at Palisades, it has now been revealed.

The first document, a combination of NRC inspection and investigation reports (officially labeled as EA-15-100), dated December 14, 2015, is posted online at: <http://www.nrc.gov/docs/ML1535/ML15350A197.pdf>.

In its cover letter to Entergy's Waterford Site V.P., Michael Chisum, as well as a "Factual Summary" (Enclosure 1), NRC and its Office of Investigations confirmed the validity of allegations of "*willful fire protection-related violations of NRC requirements,*" as well as "*an additional contract fire watch individual [admitting] to sleeping while assigned to perform fire watch rounds and missing an assigned inspection, which was shown as being completed.*"

The agency also reported that:

The NRC found instances in which seven contract individuals deliberately failed to conduct compensatory hourly fire watches, as required by site procedure, and falsified fire watch tour logs by initialing that fire watches were performed with knowledge that watches had not been performed. In addition, the NRC found that one Entergy Operations, Inc., supervisor deliberately failed to identify and take corrective actions upon being provided with information of suspected wrongdoing by contract fire watch individuals. The NRC also found that one contract manager deliberately provided incomplete and inaccurate information to an access authorization reviewing official regarding the trustworthiness and reliability of a contract fire watch individual.

NRC OI's "Factual Summary" continued identifying assorted violations at Waterford:

...three apparent violations of NRC requirements were identified and are being considered for escalated enforcement action;

...a Waterford Steam Electric Station security officer questioned fire watch personnel about the absence of a door alarm that is usually received on a security door when rounds are conducted. The security officer's concern led to the licensee reviewing card reader information for the rounds which identified numerous instances of the fire watch tours not being conducted; although the surveillance records indicated that the tours had been completed.

...Three individuals that conducted fire watch tours acknowledged the standard for falsification and admitted to falsifying the records. Three other fire watch individuals denied any wrongdoing; however, records for the door alarms were examined and it was determined that the records verifiably depicted the instances of missed inspections by those three fire watch individuals accompanied by signed documentation that the inspections were done. Concerning the allegation that Entergy Operations, Inc.'s management was aware of wrongdoing and failed to identify and

correct the issues, during an Office of Investigations interview, the supervisor admitted that the condition was not properly documented and addressed when the concern was brought to his attention.

During the investigation, it became apparent that another manager (contractor) failed to provide complete and accurate information to an access authorization reviewing official, associated with the reinstatement for one of the contract fire watch individuals. The manager was directly involved with disciplining the contract fire watch individual due to fire watch log discrepancies (prior potential falsification of fire watch tours), but failed to provide that level of detail to an access authorization reviewing official when questioned about the job performance issues recorded. In an interview, the manager did not admit to providing information that was incomplete and inaccurate to Waterford's access authorization staff.

In its "SUMMARY AND DESCRIPTION OF APPARENT VIOLATION" section (labeled Enclosure 2), the agency made the following findings:

Contrary to the above [NRC regulations and Entergy's written implementation procedures], on multiple occasions from July 2013 to April 2014, Entergy Operations, Inc., personnel failed to implement fire protection procedures required by technical specification. Specifically, seven fire watch personnel failed to conduct numerous observations and inspections of various fire areas to assess for indications of fires. Also, a supervisor failed to initiate a condition report for numerous missed fire watch tours that compensate for degraded fire protection systems and/or barriers, which are conditions adverse to quality, in accordance with the corrective action process. The apparent violation is designated as AV 05000382/2015011-01, "Failure to Implement Proper Control of Fire Protection Impairments."

Contrary to the above [NRC regulations and Entergy's written implementation procedures], on multiple occasions from July 2013 to April 2014, Entergy Operations, Inc., personnel failed to maintain complete and accurate records of hourly fire watch patrols. Specifically, fire watch log records required by Procedure FP-001-014 certified that observation or inspection of an area or room to assess for indications of a fire were completed; however, many fire watches were not performed. In addition, Procedures UNT-005-013 and EN-LI-102 require that conditions adverse to quality relating to the fire watch program be identified. Known examples of missed fire watch logs, which are conditions adverse to quality, were not identified in accordance with the corrective action process. The fire watch logs and associated corrective action documents are material to the NRC because it provides evidence of compliance with NRC safety requirements. The apparent violation is designated as AV 05000382/2015011-02, "Failure to Maintain Complete and Accurate Information for the Fire Protection Program."

Contrary to the above [NRC regulations and Entergy's written implementation procedures], on January 13, 2014, a manager failed to provide complete and accurate information in all material respects regarding the trustworthiness and reliability of an individual applying for unescorted access to Waterford Steam Electric Station. Specifically, a GCA Nuclear Facility Services regional fire watch manager provided incomplete information to the Waterford Steam Electric Station access authorization reviewing official regarding the reason a contract fire watch individual's unescorted access had been put on hold. Subsequently, the fire watch individual's unescorted access was reinstated, when access would not have been reinstated because prior fire watch activities had adversely reflected on the individual's trustworthiness and reliability. The apparent violation is designated as AV 05000382/2015011-03, "Failure to Maintain Complete and Accurate Information for the Access Authorization Program."

Given such serious violations of NRC safety regulations – "Failure to Implement Proper Control of Fire Protection Impairments," "Failure to Maintain Complete and Accurate Information for the Fire Protection Program," and "Failure to Maintain Complete and Accurate Information for the Access Authorization

Program," what enforcement actions did NRC choose to take? The answer -- as revealed in NRC's April 6, 2016 *WATERFORD STEAM ELECTRIC STATION - CONFIRMATORY ORDER, NRC INSPECTION REPORT 05000382/2016007 AND NRC INVESTIGATION REPORT 4-2014-017* (also labeled as *EA-15-100*, posted online at <http://www.nrc.gov/docs/ML1609/ML16096A474.pdf>) – is few to none!

How could this possibly be? How could the agency charged with protecting public health, safety and the environment, against the risks of nuclear power and radioactive waste, let Entergy off the hook, after such serious, willful regulatory violations at Waterford?

NRC proclaimed "*a successful alternative dispute resolution mediation session...held on February 19, 2016,*" and celebrated that "*a preliminary settlement agreement was reached*" with Entergy regarding the Waterford violations.

One has to wonder why NRC feels the need to enter into ADR proceedings with a rule breaker like Entergy? Shouldn't NRC simply enforce its own safety regulations, that is, do its job? Effectively, the ADR process enables Entergy to wiggle out of accountability for its own violations of regulations. But two examples include NRC's recent decisions to let Entergy off the hook for willful violations of regulations vis a vis the Safety Injection Refueling Water Storage Tank at Palisades (see just below), as well as fire watch tour falsifications at Waterford.

In the Waterford related document, NRC trumpeted:

In light of the significant corrective actions Entergy has taken and subject to the satisfactory completion of the additional actions Entergy committed to take, as described in the Confirmatory Order (Enclosure 1), the NRC will not issue a Notice of Violation and will not issue an associated civil penalty for the apparent violations discussed in the NRC's letter dated December 14, 2015. The NRC is satisfied that its concerns will be addressed by making Entergy's commitments legally binding through a Confirmatory Order. (emphasis added)

That is, NRC let Entergy mostly to entirely off the hook. This, despite Entergy agreeing with NRC's conclusion that:

...between July 2013 and April 2014, fire watch records certified that observation or inspection of an area or room to assess for indications of a fire were completed; however, many fire watches were not performed. In addition, an Entergy supervisor willfully failed to identify and take corrective actions when provided with information of suspected wrongdoing by contract fire watch individuals. Further, on January 13, 2014, a contractor manager deliberately provided incomplete and inaccurate information to an access authorization reviewing official regarding the trustworthiness and reliability of a contract fire watch individual.

NRC seemed to try to justify letting Entergy off the hook, by warning that no *further* wrongdoing would be tolerated:

Pursuant to Section 223 of the Atomic Energy Act of 1954, as amended, any person who willfully violates, attempts to violate, or conspires to violate, any provision of this Confirmatory Order shall be subject to criminal prosecution, as set forth in that section. Violation of this Confirmatory Order may also subject the person to civil monetary penalties.

Of course, as documented above, NRC had just waived any Notice of Violation or civil penalties for these very serious violations, so such warnings of "We'll let you go this time, but don't you dare do it again!" ring a bit hollow. Besides, how many instances of wrongdoing will NRC let Entergy simply get away with? In baseball, three strikes means you're out.

Entergy similarly “beat the rap” at Palisades recently. Despite an NRC OI conclusion – reached after a 3.5 year long investigation – that Entergy employees’ violations of safety regulations were willful, vis a vis leakage of radioactive water from the Safety Injection Refueling Water Storage Tank, into the control room at Palisades, NRC nonetheless “agreed to disagree” with Entergy regarding whether the violations were willful. Entergy is only required to undertake public relations-like presentations about “lessons learned,” to national industry colleagues, as well as the public near Palisades, going forward. Unfortunately, the “lesson learned” by such instances of NRC refusing to enforce its own safety regulations, or refusing to hold anyone at nuclear utilities responsible for serious regulatory violations, is “go for it, you can violate regulations – willfully – and get away with it. You won’t be held accountable.” NRC is guilty of collusion and complicity in this breakdown of rule of law. (See Beyond Nuclear’s backgrounder about this recent unacceptable action by NRC: <http://www.beyondnuclear.org/safety/2016/5/21/nrc-lets-entergy-get-away-with-murder-at-palisades-atomic-re.html>)

The Japanese Parliament, after a year-long investigation, concluded that the root cause of the Fukushima nuclear catastrophe was collusion of industry, regulator, and government officials. It was the reason the three reactors that melted down in mid-March 2011 were so catastrophically vulnerable to the natural disasters that hit on 3/11/11. But we have such collusion in spades at Palisades, between NRC, Entergy, and the likes of U.S. Representative Fred Upton (Republican-St. Joe), who happens to chair the U.S. House Energy & Commerce Committee, with direct oversight responsibilities for NRC and nuclear power safety. But Upton has long exercised a *laissez faire* philosophy towards nuclear safety regulation, including at the three reactors in his own congressional district (Palisades, as well as two units at Cook).

Even the scant requirements NRC demanded at ADR will be months or even years off. The violations at Waterford came to NRC’s attention on January 21, 2014. OI’s subsequent investigation lasted from February 3, 2014 till May 19, 2015. OI determined that the violations took place beginning as early as July 2013. On February 19, 2016, the preliminary settlement agreement reached, after an ADR session that day, was reached between NRC and Entergy regarding the Waterford violations. This was not even reported till April 2016. NRC’s *Confirmatory Order* then went into effect on May 6, 2016, nearly two and a half years after Waterford’s violations came to the agency’s attention, and three years after they had begun. The deadlines for Entergy to complete corrective actions then extend for many months, and even years, into the future still.

As the saying goes, the wheels of justice can turn slowly, it seems, when it comes to addressing willful violations of NRC safety regulations. To make matters even worse, NRC then all too often slams the brakes on altogether, as when Entergy Palisades employees’ willful violations of regulations (as concluded by OI after an investigation lasting 3.5 years), vis a vis the Safety Injection Refueling Water Tank, were effectively excused by NRC, in another recent ADR proceeding, that yielded little more than PR-like actions over the course of years to come from Entergy. NRC’s apparent refusal to simply enforce its own safety regulations, and to hold nuclear utilities and their employees accountable for willfully violation of them, means that nuclear safety regulation all too often crashes and burns in the ditch on the side of the road.

The NRC’s *CONFIRMATORY ORDER (MODIFYING LICENSE)*, issued in the aftermath of the Waterford violations to *ALL POWER REACTOR LICENSEES OWNED AND OPERATED BY ENTERGY NUCLEAR OPERATIONS, INC.; ENTERGY OPERATIONS, INC.; AND ENTERGY NUCLEAR GENERATION COMPANY*, included Palisades, of course. Many questions are begged by it. (See EA-15-100, dated April 6, 2016, posted online at: <http://www.nrc.gov/docs/ML1609/ML16096A474.pdf>.)

At D. NRC reports:

An Entergy Nuclear Fleet operating experience review was performed. This review determined that each Entergy Nuclear Fleet site needed to review the root cause for this issue. Actions were issued at each site to determine any vulnerabilities. All other Entergy Nuclear Fleet sites concluded the site specific procedures adequately covered the gaps identified at Waterford except one site. That site initiated a condition report to address gaps in its fire watch program

and performed procedure changes. The actions were completed by February 5, 2015. (emphasis added)

Was the one exception Palisades? It's left intentionally vague, for some unexplained reason.

If yes, Entergy (and NRC) are here claiming that any inadequacies had been addressed by February 5, 2015. Obviously, given the Palisades whistle-blower's recent revelations, that conclusion was overly optimistic. The problems were not solved, and still are not, apparently.

If Palisades was *not* the one exception vaguely mentioned, that would mean that Entergy's review was itself inadequate, for Palisades' violations obviously sneaked through, undetected.

Granted, the willful violations of fire safety regulations at Palisades could have started *after* that review took place, but that would indicate Entergy's (and NRC's) corrective actions were altogether woefully inadequate, not preventing recurrence one bit. The violations at Waterford dated way back to July 2013, and then continued till April 2014 -- three months after NRC had become aware of the violations, and two months after NRC OI's investigation had gotten underway! The "misbehaving mice" at Waterford continued to play, even after the NRC "cats" showed up. Given how often Entergy seems to escape serious accountability, as via the ADR process, that may be *why* the mice aren't very afraid of the cat. The mice seem to get away with it, and let off the hook, repeatedly, even after being caught by the cat.

Nonetheless, it does seem likely that the violations at Waterford helped -- eventually -- to expose similar (although perhaps worse) violations at Palisades. We must now wait for OI -- and even FBI -- investigations at Palisades to conclude, to learn more details. One question is for *how long* have the 22 security guards at Palisades been on paid administrative leave. This is quite significant for fire and security risks at Palisades, because it means that the remaining security guards are likely working 72 or 75-hour work-weeks, to make up for the force's decreased numbers.

The timing of the recent revelations at Palisades begs questions. The supposed resolution of these issues, across Entergy's nationwide fleet, was concluded by February 5, 2015, NRC confirmed Entergy claiming above. And yet nearly a year and a half later, similar violations have been revealed at Palisades. Has NRC's weak enforcement of its own safety regulations in general, and at Waterford in specific -- that is, the agency's decision to not hold accountable Entergy, nor even the individual contract fire watchers, supervisor, and manager caught willfully violating regulations there -- contributed to the bad attitudes (also known as lack of "safety culture") at Palisades that has led to the violations there?

The NRC's *Confirmatory Order* re: Waterford also reported that "*the level of oversight for contractors performing work was determined to be appropriate.*" Of course, the fact that Entergy and NRC had previously thought that "*the level of oversight for contractors performing work was...appropriate,*" at least until NRC became aware of the violations at Waterford, casts doubt on the current confidence. So too does the fact that, despite Waterford's lessons that should have been learned, Palisades has now revealed widespread, similar violations.

NRC's *Confirmatory Order* went on:

J. Independent of the events underlying these violations and issues, Entergy developed and administered training on the provisions of 10 CFR 50.5 and 50.9 for all Entergy employees at its Entergy Nuclear Fleet sites.

It did? Obviously, that didn't work very effectively! Palisades has had an epidemic of similar violations, as just revealed recently by a whistle-blower. How far back in time do Palisades' violations go? We must await the report by OI (and perhaps the FBI) to know. And what about claims by NRC in recent years, after revelations by security guard supervisor whistle-blowers (later vindicated by the U.S. Department of Labor), that safety culture failures in the security department at Palisades had been resolved? Apparently *not!* Truth be told, Entergy as a whole has a major safety culture problem, making its management's

lectures to employees quite Orwellian and hypocritical. But then again, as David Kraft of Nuclear Energy Information Service of Chicago has pointed out to NRC Region 3 officials at Palisades public meetings in recent years, *the agency itself is in safety culture collapse*. What position is the NRC fox in, to judge the adequacy of safety culture at Palisades, when it can't keep its own henhouse in order?

NRC's Overly Permissive "Orders" with Overly Generous Deadlines

NRC's orders, that it worked out in cooperation with Entergy in the dubious ADR process, are themselves jaw-dropping. Given the safety risks involved, the associated deadlines are way too far out in the future.

NRC states:

IT IS HEREBY ORDERED, THAT:

A. Entergy will retain an industrial psychologist, or similarly qualified person, and within 9 months of the issuance date of the Confirmatory Order, will complete a review of those integrity events within the Entergy Nuclear Fleet over the past 5 years to look for common themes or causes associated with the events and to recommend actions that Entergy can take to prevent similar events in the future. This review will also include an evaluation of previous fleet-wide training effectiveness. Entergy will share the results of this review and any contemplated actions with the NRC. Within 18 months of the issuance date of the Confirmatory Order, if the review reveals general industry insights/lessons learned, Entergy will share those insights with the industry in an appropriate industry forum to be determined based on consultation with the NRC.

While it is probably a good idea that a pathological liar, or an incorrigible law-breaker, seeks psychological help, shouldn't that person also be held accountable for his transgressions? In the case of law breaking, fines or imprisonment are often meted out to individuals. But NRC has taken a kid glove approach to Entergy's violations, both at Waterford, as well as at Palisades. This cannot be allowed to happen yet again in response to the current fire watch violations and security breakdowns at Palisades.

It's also interesting NRC is requiring, and Entergy is willing, to only go five years back. Several senior officials at Entergy were caught lying, under oath, to State of Vermont officials regarding Vermont Yankee in 2009 to 2010 – more than five years ago now. Entergy's official lies there contributed significantly to Vermont Yankee's permanent shutdown at 12:12pm Eastern on December 29, 2014, as documented in Richard A. Watt's book *Public Meltdown: The Story of Vermont Yankee*. NRC, Entergy, and the industrial psychologist it hires, should look further back in time, to probe the origins of, and determine corrective "therapies" for, Entergy's deep rooted illness, that has manifested across its fleet, in an ongoing manner over many years and even decades, as incorrigible and pathological lying and violating of safety regulations.

At B., NRC ordered:

In December 2014, Entergy issued Procedure EN-OM-126, "Management and Oversight of Supplemental Personnel," to enhance Entergy's management and oversight of supplemental workers. Within 9 months of the issuance date of the Confirmatory Order, Entergy will conduct an effectiveness review of implementation of Procedure EN-OM-126 at all Entergy Nuclear Fleet sites. Entergy will share the results of this review and its proposed actions to address any identified performance gaps with the NRC.

This effectiveness review is not due till February 6, 2017 – more than three years after the violations at Waterford were brought to NRC's attention, and nearly four years after the violations at Waterford had begun, as determined by OI. But now Palisades' own rampant violations have been revealed in July 2016. Corrective actions by Entergy, and application of lessons learned, take way too many years to implement, it's clear. NRC's inexplicable refusal to take a strong stand in enforcing its own safety regulations makes

matters significantly worse. At Palisades, similar or worse violations have occurred post-Waterford, perhaps because employees, and even supervisors and managers, could see that NRC did not hold the company or its individual employees accountable for their willful violations of safety regulations. If there is no consequence, why would Entergy and its employees stop violating regulations?

At C., NRC ordered:

Within 6 months of the issuance date of the Confirmatory Order, Entergy will assign a corporate lead for governance and oversight of the Entergy Nuclear Fleet fire watch program. In conjunction with this assignment, Entergy will issue an Entergy Nuclear Fleet procedure or revise an existing procedure, as appropriate, to provide the common requirements for Entergy Nuclear Fleet fire watch programs. The responsibilities of the lead will include ensuring the consistent application of the subject procedure across the Entergy Nuclear Fleet.

November 6, 2016 -- nearly three years after Waterford's violations were brought to NRC's attention, and more than three years and a half years after Waterford's violations had begun -- is an unacceptably late due date for Entergy to come into compliance with NRC's fire safety regulations. NRC's own lack of urgency on such matters undoubtedly has contributed to the criminal risk taking at Palisades that has now come to light, in the likely form of faked fire watches accomplished through fraud.

At D., NRC ordered:

Within 3 months of the issuance date of the Confirmatory Order, Entergy will revise the appropriate Entergy Nuclear Fleet procedure to provide a process to address requests for the reinstatement of unescorted access authorization for a worker whose unescorted access has been temporarily placed "on hold" or assigned some other comparable interim status. The revision must ensure that the Access Authorization Reviewing Official has the relevant information and appropriate approvals before deciding whether to reinstate the worker's unescorted access.

In an age of terrorism, 15 years after the 9/11 attacks (which, the *9/11 Commission* documented and reported in 2004, could easily also have been directed at Entergy's Indian Point nuclear power plant near New York City, but fortunately were not -- that time), at a company that is one of the U.S. nuclear power industry's biggest (with a dozen reactors in its fleet, if Cooper in Nebraska is included -- Entergy has been the operator there, while Nebraska Public Power District retains ownership) and oldest, this is just being figured out? This must be rectified immediately, not months from now. It should have been solidly in place not years, but decades ago!

At E., NRC ordered:

Within 6 months of the issuance date of the Confirmatory Order, Entergy will review and revise, as necessary, Entergy Nuclear Fleet supervisor training to ensure that it addresses the responsibilities and actions of supervisors who become aware of facts and circumstances potentially impacting a person's trustworthiness and reliability. If Entergy determines revisions to the supervisory training are necessary, the training will be delivered within 12 months of the issuance date of the Confirmatory Order. Additionally, within 2 months of the issuance date of the Confirmatory Order, Entergy will develop and publish a communication to all supervisors at its Entergy Nuclear Fleet sites reminding them of their responsibility to report issues impacting workers' trustworthiness and reliability to access authorization personnel.

It's astounding that Entergy's supervisors had not already known their responsibilities under law and regulation. The May 6, 2017 deadline -- more than four years after violations at Waterford began -- for supervisory re-training to be done, is way too lax. As is becoming more and more clear to environmental and public interest watchdogs, as well as concerned local residents living in the shadows of reactors at risk downwind and downstream, Entergy appears to be a company that NRC should not have awarded operating licenses to in the first place. NRC needs to seriously consider revoking those reactor operating licenses, given Entergy's repeated wrongdoing, and/or incompetence.

At F., NRC orders:

*Within 3 months of the issuance date of the Confirmatory Order, Entergy will have **conducted a briefing of all fire watch personnel, at each of its Entergy Nuclear Fleet sites, on the importance of the fire watch activity to the nuclear safety of the facility.** In addition, within 3 months of the issuance date of the Confirmatory Order, this briefing will be incorporated as part of new fire watch personnel training. Within 9 months of the issuance date of the Confirmatory Order, Entergy will perform a review of other tasks where the importance of the task to reactor safety may not be apparent to the personnel performing the task and conduct similar training.*

As is clear now, this order didn't come in time to prevent the violations at Palisades. It is shocking that 41 years after the Browns Ferry, Alabama near catastrophic fire, Entergy's fire watch personnel are not aware that fire risk accounts for 50% of melt down risk at atomic reactors – as much as all other risks combined.

In what other areas of Entergy's operations are operators unclear re: the nuclear safety significance of their actions, or inactions? Control room operators? Entergy's CEO's office? The entirety of Entergy could be included in this category of catastrophic ignorance, it would seem. And the entirety of NRC HQ and regional offices for that matter, if NRC's tendency to let Entergy flagrantly and willfully violate safety regulations continues any longer.

At H. *Administrative items*, NRC orders:

- 1. The NRC will consider the Confirmatory Order an escalated enforcement action with respect to any future enforcement actions.*
- 2. In consideration of the elements delineated above, **the NRC agrees not to issue a Notice of Violation for the violations discussed in NRC Inspection Report 05000382/2015011 and NRC Investigation Report 4-2014-017 dated December 14, 2015 (EA-15-100) and not to issue an associated civil penalty.***
- 3. This agreement is binding upon successors and assigns of Entergy. **The Regional Administrator, Region IV, may, in writing, relax or rescind any of the above conditions upon demonstration by Entergy of good cause. (emphasis added)***

NRC is too generous to Entergy, too tolerant. By effectively letting Entergy entirely off the hook for significant, willful safety violations, NRC is doing the opposite of enforcement. NRC is bending over backwards to *not* enforce its own safety regulations. This makes a mockery of NRC's own regulations and mandate to protect public health, safety, and the environment, as well as making a mockery of rule of law. This is collusion and complicity with Entergy, akin to the collusion that led to the Fukushima nuclear catastrophe, as mentioned above. What will Entergy's lack of accountability, enabled by NRC inaction and too generous forbearance and forgiveness -- even for repeated, flagrant, and willful violations of safety significant regulations – lead to here? Nothing good can come of it.

NRC's reminder that it might let Entergy even further off the hook is the poison icing on the cake. The public must remain vigilant, to prevent NRC from retreating even further from its mandate than it already has.

CONCLUSIONS

It was sheer luck that no fires broke out during the time periods of faked fire watches at Entergy's Waterford and Palisades nuclear power plants. The fire watches were non-existent. Any fire could have, and likely would have, burned out of control, without even being detected, until it may have been too late to prevent a reactor meltdown or high-level radioactive waste storage pool fire. Such fires could have resulted in catastrophic hazardous radioactivity releases.

NRC has effectively let Entergy off the hook for past violations at Waterford (re: fire watch willful violations, etc.) and Palisades (re: Safety Injection Refueling Water Storage Tank willful violations) – with no accountability for the willful wrongdoing, including outright falsifications/lies. Doing so means NRC's regulations aren't worth the paper they're written on. This cannot be allowed to happen again, re: recently revealed fire watch violations at Palisades.

NRC's pat on the head, wag of the finger, and wink of the eye, in the face of Entergy's flagrant, willful, ongoing violations of safety regulations must end. Letting Entergy off the hook, as via ADR processes, is unacceptable. NRC must do its job, and fulfill its mandate, to protect public health, safety, and the environment, by enforcing its safety regulations.

Prepared on July 13, 2016 by Kevin Kamps, Beyond Nuclear's Radioactive Waste Watchdog, and Don't Waste Michigan's board of directors member, representing the Kalamazoo chapter.

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