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Additional submitted attachment is included below.

From: tom marre
To: Energy - Docket Optical System
Subject: DIABLO CANYON / re license
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Honorable Commissioners

re: Diablo Canyon/ relicense /08.12.2022/ zoom meeting

1. Thank you for hearing the many public comments
I am not a scientist, or an activist.
I am very bullish on nuclear power but not the 1st generation iterations.
Like the model-T , I view them to be quite clumsy ... Later, un-pressurized concepts with less toxic waste elements appear to be more workable.

I come to you today as a Minor Historian in that I have lived next to Diablo all of my life.. in fact, I have walked on the plant-site before a plant was there.

2. This plant-site is greatly flawed for this use and the plant itself is older than you realize. Yes, the plant looks big and strong and well maintained..... Looks can be deceiving...Again, I need to convey that I am very much in favor of the newer un-pressurized Nuclear reactors and their spent nuclear fuel (SNF) profile.
I do take issue with this particular plant-site and this particular plant ... The plants too old, the site is seismically challenged

3. The plant-site gets 300 nights of corrosive salt-fog every year. The coastal grazing land which surrounds it is divided by very typical ranch fences. There is a reason why all these fence posts are wood, not the traditional metal pickets.

4. The great majority of metal pipes are not-stainless steel, they are the far less expensive red-iron. The exposed pipes which we see are stainless steel.

4.3 A rule-of-thumb as described to me by a PG&E engineer (this was revealed in a DCISC recent meeting) was that anything which was encased in cement or covered with insulation was red-iron. If one could see it, then stainless.

4.5 It is important to understand that this plant is a 1st generation, pressurized Nuclear Power Plant and was a child not of the sixties but of the 1950s... Westinghouse designed, built and was the vendor for the 2 reactor vessels... It was Westinghouse engineers who gave the original form to this plant..... DCPP did not magically appear in 1985. It has been corroding in that salt-fog for two decades previous to that.

5. DCPP was finally licensed to operate in 1985 by the NRC.. This 1st generation, pressurized, Nuclear Power Plant. This was by far the largest and most complex project Pacific Gas and Electric Company ever undertook and they elected to self-perform the project. Bechtel, a general contractor with a lot of nuclear experience and very large project experience was not used.. To save money pg&e decided to Self-Perform. At the time it was constructed this one plant represented 20% of pg&e's net worth. This cold hard economic fact greatly guided how pg&e proceeded. PG&E actually started excavating the site in 1964. By 1970 foundations were poured and they were out of the ground.[working above ground level]

5.5 It's important you know that about this time pg&e engineers managed pour the foundation for Unit-2 backwards....
It was a mirror image and needed to be ripped out... Did I say clumsy ?...I mention this because it was such a large, obvious mistake.
And begs the question what other mistakes are incorporated into that plant?

6. In 1971 Shell Oil engineers advised pg&e of an active earthquake fault near their plant site (the Hosgri fault) 3 miles off shore.
At this time C-Suite executives for the self-performing power company [pg&e] determined that they would continue with the flawed site on this a project larger and more complex than they have ever attempted.

7. The NRC asked for a plan to mitigate the seismic issues pg&e submitted an earthquake mediation plan which included structural seismic supports.

8. In 2015 there were more seismic studies which were initiated by others [USGS]. The studies revealed a nest of earthquake faults which tie into the San Andreas fault system. This nest is as close as 900 yards from the flawed plant site.

9. It is important to note and worth repeating that Pacific Gas and Electric Company embarked on self-performing as the General Contractor. This was by far the largest and most complex project they had ever embarked upon. 20% of the company's net worth was riding on the decision to build this plant... in my opinion, this influenced how they proceeded

10. Yes, DCPP gets many awards...In its class.....You will be happy to know that nuclear technology has advanced since 1985. Other plants which are not a child of the 50's perform much better and much cleaner.

Example: during a recent scheduled outage (refueling and maintenance)... the DCPP outage team was very proud of their 12.9 rems of exposure. The outage team tried very hard to keep the exposure as low as possible and were commended for their achievement.. But at the same time the relatively new plant at Palo Verde, 45 miles east of Phoenix Arizona... was able to post 9.5 rem per person, exposure for a similar task [Outage] about 30% less... This is not because the workers at Palo Verde are better than DCPP workers.... one plant is just decades older.

11. The deferred maintenance which has been mentioned is a very real issue !!!!!

Many expensive elements which were not functioning were PATCHED rather than being replaced as pg&e anticipates a 2024-2025 closing You may get some very real input re this from the DCISC[Diablo Canyon Independent Safety Committee]. The committee members are very lettered phd's

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12 . An example of one of these incidents was a control rod malfunction or the circuit board that controlled the electric motors which operate the control rods for unit-2. This was a redundant backup system. The circuit board had what was described as "an aberration in electrical flow" That's electrical engineer speak.. to you and me the circuit board shorted out. Where two different metals met at the power source and got corroded over time.

It was repaired in a matter of days.

Needless to say a very crucial element of the plant was operating for several days without a backup system.

Thankfully this situation was handled but it begs the question ....How many other circuit boards are in the plant? What function do they control and has the relentless, corrosive salt-fog had an effect on them ?

13. Another example [there are many more] shortly after this, the Unit-2 power generator had an issue... (To be clear this is not on the nuclear side)

It was a Phantom Vibration which could not be found.. Engineers tried to find this vibration for months this necessitated engineers running the power generator at about 55% of its usual running capacity.

The CPUC was putting pressure on DCPP engineers to get this going as we approached summer months. The direst of the situations actually necessitated and unscheduled outage so the engineers could shut down the generator and find out what was going on with it. The inventive DCPP engineers fashioned a jerry-rigged network of larger counterweights and harmonic sensors which allowed them to run the power generator at full capacity throughout summer months. But this was hardly a fix to design spec.

Eventually, the power-generator was properly repaired

Although a Root Cause Analysis was made
The engineering team did not exactly find the specific root cause of this Phantom Vibration.... They did indeed find a deep cause. It was where some bolts vibrate loose. But not, why do these bolts vibrate loose.. The team surmised that there was some sort of endemic harmonic field or distortion which caused these bolts to vibrate loose. SIEMENS, the vendor for this equipment did not know of this.

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