#Fukushima I Nuke Plant Worker's Perspective on the Debris Dropping Accident at Reactor 3

"Happy11311" has been tweeting from Fukushima I Nuclear Power Plant since the March 11, 2011 triple disaster of earthquake, tsunami and nuclear accident. He tweeted his take on the fuel handling machine mast that dropped into the Reactor 3 Spent Fuel Pool with a big splash a few days ago.

He says the work was carried out even when it shouldn’t have been, because the contractor(s) was under pressure to catch up.

He also says that the work is done by remote control, but it needs workers in tungsten vests right on the platforms surrounding the Reactor 3 building, as they have to visually monitor the work to make sure everything is going safely.

From his tweets on February 10, 2013 (my translation):

以前もつぶやいたけど3号機オペフロ瓦礫撤去作業はとても難しいんだ。
3号機オペフロは高線量のため4号機みたいに作業員が上がって撤去するわけにはいかない状況。
撤去作業は被曝しない場所で遠隔操作でやってるけどカメラームガルだったりじゃないのかない部分がある。

As I tweeted before, removing the debris on the Reactor 3 operating floor is extremely difficult. Since the Reactor 3 operating floor has high radiation levels, unlike on the Reactor 4 building, workers cannot go up there to remove the debris. The actual debris removal [for Reactor 3] is carried out from a location far enough to avoid radiation exposure by remote control, but there are cases where the camera images from different angles are not enough.

In order to compliment the remote work, visual inspection is necessary. So, workers wearing heavy tungsten vests take turns to go up on the platform, and communicate with the remote control operators to carry out the work. Workers who go up on the platform are exposed to significant amount of radiation. So now, I want to look back on that incident the other day.

It was snowing, and the work must have been very awkward and hard to do. In fact, my group canceled almost all the work that day.

So what I'm wondering is why they were doing the work in bad weather like that. Particularly when they have been doing the work extremely carefully on the Reactor 3 operating floor ever since they dropped a steel beam. So it's just my hypothesis. But that day, other construction groups were also doing the work using cranes.

I was surprised to hear the work was being carried out that day, when I arrived at the plant. In retrospect, the work that was being done in the bad weather was either behind schedule or urgent.

Installing the cover over the ALPS [multi-nuclide removal system] was one. Construction of facilities in front of the plant's main gate to move the functions of J-Village [staging area for the plant work] was another. And debris removal on the operating floor of Reactor 3.

The other is this determination to catch up on the work that is behind schedule. Or [I should say] to make [the workers or subcontractors] stick to the schedule when each work is unique in a sense that you don't know what will happen unless TEPCO and primary contractors put that into practice.
TEPCO has the schedule that it has submitted to the national government. Contractors have submitted their schedules to TEPCO. If the work is behind these schedules, the media and people in Japan will attack them, and that's the pressure. The pressure will then be on the workers, creating the situation where a day's quota has to be met even if there is a risk potential.

As to the debris falling into the [spent fuel] pool, I don't think it was just a matter of technique. I suspect it was the result of the wrong assessment of the situation, including the weather, to determine whether the work could be done safely and securely. In my opinion, workers shouldn't be the ones to decide, but it should be TEPCO and the primary contractors to responsibly decide, taking all possible situations into consideration.

The work should not be about taking the chances (gamble). I want TEPCO and primary contractors to make such decisions that would allow workers to safely and securely carry out the work to the best of their abilities and skills. I don't think TEPCO should shift the responsibility to the subcontractors, or the subcontractors shift the responsibility to the workers.

For sure, adherence to the schedule, cost-cutting, quality control, safety management, they are all important. But this work will last for decades, and the jobs are all special which you don't know how they turn out until you actually do them. A general, normal project management system shouldn't be applied to Fukushima I (1F). Even a small trouble will blow up the near-term schedule.

Almost half of decommissioning of Fukushima I reactors should be done ahead of schedule. For reasons only known to himself. Probably to prove to the world that three melted-down reactors on the wrecked nuclear power plant mean nothing to the Japanese, and taking 3, 4 decades to decommission even the regular nuclear reactors is for wimps.

Motegi is most welcome to join in at Fukushima.

On second thoughts, workers like Happy11311 have no need for a McKinsey management consultant.

To go mind-numbingly normally through an unprecedented disaster is what Japan has proved itself to be very good at. Like the national government telling Toshiba and TEPCO they would need a permit to transport batteries on the highway (and they followed orders), or telling the US that a crane from Australia was not licensed to travel on a Japanese road.

Remember also that they completely forgot to turn on the teleconferencing system at the Prime Minister's Official Residence, set up specifically for a nuclear disaster like this. And what were they doing instead? Telephone and fax, and person to person communication which mostly did not happen.