

Facility Issues

The Quonset hut as used in the operations plan should be fully enclosed all the way around, and the floor should be sealed to the walls and drained to a sealed containment area in order to prevent escapement of contaminated dust and water. The structure as-is, which doesn't meet the description in the operations plan, is inadequate.

From the Q&A at https://dec.alaska.gov/spar/csp/stt-thermal-soil-remediation/?fbclid=IwAR1B4MrZQWVvGz5StGaOWprlctj--GS34Lk6XbJQ_oGs63m2i8I7hcTo5GM

“Petroleum-contaminated soil will be delivered to the facility and placed into a staging area with a petroleum-resistant surface **inside a covered storage building....Inside the storage building**, the soil will be screened to remove all rocks and material over 2-inches in diameter....The screened soil will be stockpiled on a petroleum-resistant, sealed, asphalt pad in a covered, **enclosed**, containment area while awaiting treatment.” (Emphasis added)

This “storage building” is not fully enclosed, and is not, in fact, a building at all. It is a hood, resting atop four shipping containers with gaps between them, open on both east and west ends and permeable on the sides as well. It is basically ONLY a roof. The building is in no way enclosed. With the high winds we have in Nikiski, there is no way the contaminated dust can be contained inside this structure.

The asphalt laid within the “Quonset” (roofed) area appears to be thin, regular asphalt (with sealant on it, assuming it is done as specified) with no discernable curbs or containment.

Allowing this facility to be defined as an “enclosed structure” indicates to me that the DEC is completely unaware and has not conducted a site visit. This structure should be fully enclosed.



Figure 1: STT "Quonset" hood

Dust

Dust generated from the screen plant, regardless of whether it is located outside or under the unenclosed hood, will be able to freely interact with the high winds we have in Nikiski. Mr. Oberlee indicated he would cover stored piles if the winds were high, but this frequently happens overnight and it is possible no one would be on site, even if simply covering the stockpiles were sufficient, which I doubt. This solution also doesn't account for winds during actual ongoing operations.

Noxious or Pungent Fumes

My research indicates we may expect an unpleasant odor associated with emissions from STT's soil decontamination unit. Per a white paper called "Odor-Treatment Technology for Recovered Hydrocarbons from Oily Waste in a Thermal-Desorption Unit," (by Jilei Fang, Xianghai Meng, Guoling Xu, Yong Yue, Peichao Cong, Chao Xiao, and Wenhui Guo, Yantai Jereh Oilfield Services Group), "the pungent odor is caused by the presence of sulfur and nitrogen compounds." STT, LLC has an allowance of sulfur and nitrogen emissions, which supports the concern that pungent/noxious odors will result from STT's operation.

The DEC's responsibility (per Alaska Code 18 AAC 50.110) includes assurance that "enjoyment of life or property" are preserved. The STT facility is on the main road between my property and Kenai, and will affect me if it emits pungent chemical fumes. Those who live in the area surrounding the plant are very concerned about their continued enjoyment of life and property, to the point where some are considering moving away. This is wrong, and if the DEC allows it, you are shirking your lawful duty.

The operations plan states that emissions will be monitored in accordance with the permit. I assume DEC similarly monitors the Nikiski Marathon Refinery. This refinery regularly emits noxious chemical odors and impacts Nikiski residents negatively. The "assurance" that DEC will be monitoring emissions (from a distance), is therefore no consolation.

Alaska Code 18 AAC 50.110 prohibits any emission which ... would unreasonably interfere with the enjoyment of life or property. Mr. Oberlee acknowledged to me that noise pollution will be a factor, especially from the screening plant. My research indicates that rock screening can exceed 95dB, which would be a hazard for workers and nearby neighbors and a nuisance to road traffic. While not an "emission" that has been addressed in this permitting action thus far, the EPA does consider noise pollution to be an intrusive emission (Ref. Noise Pollution and Abatement Act of 1972, a US statute regulating noise pollution with the intent of protecting human health and minimizing annoyance of noise to the general public). This would have likely been part of an environmental impact assessment, had one been conducted in this case. The EPA delegates responsibility concerning noise pollution to state and local governments, and the DEC should be addressing this.

Groundwater

The STT site is in a hole. It used to be a gravel pit and was mined down to a point probably 20-25 feet below the surrounding ground level. Water tends to collect in this hole after rains. (Photo is attached that was taken in one area of the site after a one-day rain.) The Operations Plan indicates that the water table was encountered at 61.9 feet below ground level. The reason the well is so shallow is that the top of the well is at the bottom of a deep pit. This means the facility site is unusually close, vertically, to the water table. Contaminants will be sprayed and water will collect in the hole, and there isn't a good way to control where the water goes even if it is sprayed under the open hood (which STT calls a "Quonset hut,") where the asphalt has no discernable raised edge or curb. The Operations plan claims that after pressure-spraying contaminated soil, this water will be directed by a shallow "swale" and captured in a 4x4' containment cell (too small for the volume of water required for this pressure washing.) It isn't clear how such a shallow "swale" would contain water in an area that isn't enclosed, and it is nearly unbelievable that the high-pressure water could be contained in such an open area. To make matters worse, the operations plan states that the ground is sloped heavily away from the hooded area, which means escaped contaminated water from pressure-washing will drain out into the site.



Figure 2: Standing Water at STT Site

In Section 5, it is indicated that the water collected in the 250-gallon tank will be run through GAC in a barrel and then tested once near the start of the season. After that, subsequent water discharged will not be tested? We are expected to trust employees' visual examination? And visual observation will determine whether the GAC is still working? The hole into which the polluted water will be discharged is even closer to the water table than the bottom of the hole in which the facility rests. Before discharge, water should be lab-tested continually throughout the summer, and the GAC should be replaced when pollutant limits trend upward, not after visual observation is enough to show it has already failed. The water should also be tested for TCE/PCE and their byproducts if the plant is permitted to process soils with these substances.

Section 2.5 discusses soil treatment, and indicates that material over 2" in diameter will be screened, washed, and then stored with already-treated soil. It does not discuss organic material such as wood that is petroleum- or chemical-soaked and is mixed with these oversized pieces. Since petroleum will not wash off such wood or organic material (and possibly not off rocks either), it will remain contaminated but mixed with decontaminated material and disposed as though it is clean. If pressure-washing were adequate to clean petroleum products from such materials, we would not need a soil burner.

The plan states that the soil at the facility will be tested before work begins, and will not be tested again until the facility closes. If STT has a five-year permit, and they close in five years, they will be able to pollute the soils (and therefore, the groundwater) for five years before you

are aware. If you renew their permit and they continue for ten years, then you won't know for ten years that they are polluting the soils? If this stipulation is as it sounds, it is irresponsible.

Traffic

Local area traffic impact is not addressed in the operating plan, but should be addressed.

The amount of soil projected to be decontaminated per year by STT, LLC is 10,000 tons. This amount will result in over 700 trucks going two directions (filled, to the TDU, then empty, back to the dock for refill). Because of their intention to receive contaminated soil via the OSK Dock rather than the Rig Tenders Dock, these 700 trucks will drive directly past the Nikiski Middle-High School and into the center of the community where the fire station, gas station, grocery store and post office are located. This is 1400+ truck trips in the "non-frozen" months, which I assume are approximately May-September, five months. This amounts to a significant increase in traffic through this community, which will result in congestion and safety issues, particularly by the school but also elsewhere. Mr. Oberlee, at my suggestion, agreed that he will consider alternate truck schedules to accommodate school opening and closing. While this will help, if he indeed implements it (there is no commitment and it isn't mentioned in the Operations Plan), I don't believe it will be sufficient to address the enormous increase in traffic in the vital center of our community and residents will be negatively impacted.

Operating Hours

There is no commitment concerning operating hours mentioned in the Operations Plan. I asked Mr. Oberlee if 24/7 operation was out of the question and he wouldn't commit to that, stating that he would take into consideration noise generated from the plant, traffic patterns and project workload, but that the permit doesn't restrict his operating hours.

Given that noise (at the very least) will be a factor for residents, I ask that you restrict STT's daily operating hours. This would not be the case if they had not located in a residential area, but since that is the case there does need to be some restriction in place.

Permit Limits

If the plant operates at its limit, 25 tons per hour, and runs 60 hours per week (still a question) for 20 weeks per year (5 months), it can process 30,000 tons of contaminated soil. This amount goes far beyond the minor permit. While emissions might dictate certain limitations, Mr. Oberlee has stated that he may run at 25 tons per hour.

Neither the operations plan nor the permit covers the procedure if STT goes over their allowance. Will DEC know when they exceed? Will they be granted a waiver if they exceed?

Firm limits should be placed on this facility, especially given the fact that it is located in a residential area and completely surrounded by homes and businesses.

DEC meeting with Ben Carpenter

Meeting minutes were published from a meeting between Ben Carpenter and members of the DEC staff, including Lisa Krebs-Barsis, Jim Plosay, Jason Olds, and Stephanie Buss. It was clear from this meeting that the DEC is fully supportive of STT's plant in Nikiski. Ms. Krebs-Barsis even indicated how beneficial the plant will be "for the community." (What community? The oilfield community? STT is designed to handle large quantities of petroleum-contaminated soil, not your average homeowner's truckload or two from a leaky oil tank. From all appearances, they will be receiving their contaminated soil from the OSK dock area, not from Nikiski proper.)

In the meeting, the DEC employees were almost "selling" the STT plant to Mr. Carpenter, advocating for it as though they have a stake in it. I see this as bias on the part of the DEC. It seems as if the decision is already made, and possibly was made before the first public comment session.

Further, the meeting minutes stated: "Staff explained that the facility is prohibited from remediating hazardous waste or PFAS contaminated soil." This is untrue. PCE/TCE are classified as hazardous material, and STT has DEC allowance to treat these materials. STT should not be permitted to treat these hazardous materials, as the DEC committed to Mr. Carpenter in their discussion.

I would like to see the prior damage from the oilfield community remediated, but, frankly, Mr. Oberlee and his partners chose a poor location for their facility, and the DEC is enabling this without concern for Nikiski's residents. In fact, it is my understanding from Mr. Oberlee that the DEC is partially responsible for this debacle, as their rules required the site to be found before the permit could be applied for, and months before a public comment was open – a scenario that begs for problems in a community. I hope the DEC has reconsidered this requirement.

If the facility were located in an industrial area – and there are many in Nikiski – I think Nikiski would have welcomed STT to locate here. The facility should be relocated to an industrial area.