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Dear San Juan County Hearing Examiner & Eastsound Community,

My name is Arch Hudelson and I'm writing this letter to hopefully clear up some possible confusion regarding past issues with propane storage on Orcas Island. The company I represent uses the best equipment technology currently available and we have incorporated that engineering into the new propane storage tank for Inter-Island Propane on Orcas island. I believe the following information will be of help to the community on Orcas.

I would like to address the prior situation that occurred and perhaps shed some light on what happened and why. Also, illustrate what planning and design can do to make sure something like that doesn't happen again. My company's equipment was not on the Island when the release incidence occurred. What occurred and the aftermath was recounted to me by some residents of the Island and official reports.

That distillation is recalled as follows:

The propane storage tank that was used by the previous propane company was designed and built as a stationary propane vessel, but then was mounted on a trailer designed to haul ocean-going cargo containers around the port areas in major harbors. These are considered "Temporary-Type" propane storage systems and they are referred to as a "Porta-Pack" units in the propane business. As designed for temporary service at a location, some of them do not include a high level of refinement and engineering that is incorporated into our permanent propane storage facilities. For example, it was noted that when propane was pumped from the Porta-Pack storage into the small bobtail delivery trucks, there was a great deal of noise associated with that action. They used pumping equipment that was driven by the engine in the diesel semi-tractor, attached to the Porta-Pack which contributed loud engine noise to the community. What should have been done was the placement of a fixed propane pump to the large storage

vessel, using an electric motor to drive that pump. By doing so, the noise associated with pumping the fuel into the small trucks would have been no louder than standing at a gasoline pump at a service station. This is actually the noise level at the storage tank, not out at the street area or at nearby homes. There will be no burned diesel smell drifting in the air like before, because we will not have a semi-truck running to pump the fuel. We do not build that type of storage systems in our propane equipment business. Inter Islands Propane Storage system is this type of a system. Very low noise and no diesel emissions unlike the previous company. Again, the noise associated with pumping propane out of the tank into the delivery truck will be no louder than a pump at the gasoline station.

The other part of the report was that on one occasion, a driver from the prior company pulled away from the fuel loading area located on that Porta-Pack. That action resulted in the release of propane into the air causing an emergency response from the community. This possibility is certainly upsetting to folks living near a fuel transfer area and cause for concern. Properly designed propane storage systems take this potential problem into account and design safety systems to prevent any such likelihood. This comprehensive safety design also must incorporate features into the delivery truck design. That way, both sides of the delivery hose is protected from accidental fuel release. Inter-Island Propane's fuel storage and delivery trucks have these safety features installed.

On the storage tank side, several interlocking safety devices are used and they all must be satisfied before fuel can be transferred out of the tank. Primary control is driven by pneumatic pressure. This type of safety shut-down, powered by pneumatic pressure, is used to remotely open the primary shut-off valves. The motive pressure only used to open these valves, as they incorporate both internal and external springs designed to keep them closed unless acted upon by the pneumatic system. There are also secondary shut-off valves that are manually operated, giving manual control at the piping should they wish to use it.

The importance of these pneumatic valves is illustrated at the fuel transfer site. This is where the fuel transfer hoses are attached to the storage tank's piping system. We design vertical pipe sections that extend upward, out of the ridged fuel transfer bulkhead. On the top of these vertical piping sections is where the transfer hoses are connected to the plant-side piping. Those extended pipe nipples are designed to "Tip-over" and are the engineered release point, in the un-likely event of a drive-away with the hoses hooked up. There are stainless-steel cables attached to those tip-over nipples and the other end is connected to a pneumatic switch mounted securely behind the fuel transfer bulkhead. If someone were able to

drive-away, the pipe nipples would tip and tug on the stainless-steel cables, pulling the pneumatic shut-off switch, closing the pneumatic valves. This would prevent the accidental discharge of any significant amount of propane.

On Inter Island Propane's bobtail delivery truck side of the fueling hose, we have additional safety features on their trucks that prevent them from driving away while the hoses are attached between the storage tank and the truck. This feature uses the air brakes on the truck as part of the safety system. The fuel receiving fittings on the bobtail delivery truck have pneumatic lever switches mounted in front of them. In order to attach the delivery hoses from the tank to the truck, those lever switches must be rotated out of the way. When this is done, the air brakes on the truck are locked up. The only way for this truck to drive away is to remove the hoses and rotate the air brake lever switches back in front of the fuel transfer fittings. This is a VERY safe method to prevent drive-offs and any resultant fuel discharges. I know other island residents are concerned about greatly increased truck traffic in the area and potential pollution values that may also be added to that portion of the island. Potential traffic increases might be one small "Bobtail" delivery truck driving in and out of this site once, perhaps twice on a busy day. Please understand, these are not old noisy "Clunker" type trucks, they are state of the art, late model vehicles that strictly comply with all State and Federal rules and regulations pursuant to commercial motor carrier application. These vehicles not only have large downward faced mufflers for quiet operation, but several pollution control devices mounted in the exhaust system that meet and exceed the strict California EPA laws.

The large delivery semi-trucks that bring bulk loads to the island are also equipped with a similar air brake locking device that prevents vehicle movement if the hoses are attached.

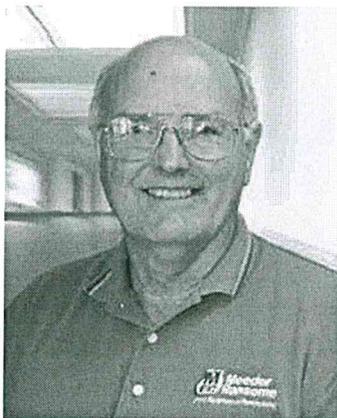
I wanted to follow up on the pneumatically operated primary shut-off valves in the bulk propane storage tank. These valves have a shut-off switch located within 15 feet of the fuel transfer bulkhead. There is an additional shut-off switch located on the other end of the tank and the third one is located behind the fuel transfer bulkhead and is attached to the tip-over nipples for the hoses. There are also thermal release fuse links in the pneumatic system. If these are subjected to excessive heat, they will release the pneumatic pressure and close the primary shut-off valves in the tank and the Emergency Shut-off Valves behind the fuel transfer bulkhead. This is also a good time to mention that unless fuel is being actively transferred in or out of the storage tank, the primary shut-off valves are closed, period!

All of these safety features are not added in a random manner. The code these tanks have to comply with, is the National Fire Protection Association – Pamphlet 58. There are several levels of safety compliance these vessels may be subject to. Inter-Island Propane’s storage tank is engineered and designed to the most stringent level of compliance that is listed in Chapter 6 under **Redundant Fail-safe Product Control** paragraph 6.28.4.

I address the code compliance and operational safety considerations as if it were my family living next door, so this is not just a transient concern. I have been in this capacity for the last 41 years and do not want a problem to develop on my watch. If someone has specific questions related to Inter Island Propanes LPG storage system, please ask me and I’ll respond.

Respectfully,

Arch Hudelson



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“Arch has been in the propane industry and with Meeder Equipment Company for over 40 years. Arch has been trained and certified in Fisher, Impco, Rinnai and Blackmer, as well as Corken and Perfection PE Equipment”