



Fire Chief's Incident Report: Free Store structure fire

September 23, 2020

101 Harris Road

At approximately 0545 on Wednesday September 23, 2020, Andre Green, in his duties as local highways maintenance manager, drove by the Saturna Island Free Store. He was surprised to see electrical – looking sparking outside the rear corner of the building. On closer inspection, he saw flames and immediately called 911 to report a structure fire.

The Free Store building is an older wood-frame, single story structure, approximately 8' x 30', with a pier foundation, open below, with a 6' deep breezeway roof out front running the full length of the building. The building houses clothes, kitchen equipment, and other used commodities that are exchanged for free by community members. There are no occupants.

The Saturna Island Volunteer Fire Department's pagers went off at 0548, and members immediately responded to their respective firehalls. The freestore is directly across the street from the primary Firehall, ESB1, at 102 Harris Road. Engine 11 arrived on scene with Deputy Chief Brent Sohier at 0554. At this time the building was fully involved, with windows self-ventilating, and flames seen rolling out from the full length of the breezeway roof in front of the building.

DC Sohier immediately engaged the pump and deployed the bumper line from E11, applying approximately 150 gallons from a safe distance, which considerably lowered the fire. At this point, Chief Peter Clark arrived on scene and did a sizeup, reporting a fully involved structure fire. DC Sohier then engaged the foam unit on E11, and proceeded to apply foam to the fire. After the chain link gate to the compound was forcibly breached, a team of 2 firefighters on SCBA with an attack line fought the last of the visible fire from just outside the structure.

Knockdown of the fire and a transition to the overhaul stage was declared over the radio at 0616, though substantial knockdown had been accomplished slightly earlier.



Subsequently, 4 consecutive teams of 2 firefighters each, using SCBA, hoseline, hand tools, and Thermal Imaging Camera, conducted salvage and overhaul operations inside and outside of the building. The walls and ceiling were opened up, and the building was thoroughly cooled until the thermal imager showed nothing. BC Hydro arrived on scene at approximately 0747. The incident was stood down at 0805.

Subsequent firewatch inspections, with the assistance of the thermal imaging camera, were conducted at approximately 30 minute intervals until 1200, and every 120 minutes afterwards until 1600.

Water supply was pumped directly from ESB1's supply of 2x 4000 gal tanks, and delivered to E11 via 2 ½" supply line. SIVFD's efforts benefited from the weather, which was a torrential downpour. Early application of water, and then foam, from the exterior of the building, was crucial to the success of this incident response.

CAUSE: Evidence points overwhelmingly to the cause being the BC Hydro electrical lines behind the building. Due to the overnight windstorm, an alder tree had clearly fallen, a few meters to the right end of the building (far from the fire) and this had severed one of the 3-phase electrical lines. The breaker for this line did not open. Discussion with BC hydro employees on scene confirmed that the failure of this breaker to open triggered the recloser that controls power to the entire Saturna island. When this recloser was subsequently automatically engaged 3 times in attempts to reenergise the island, whatever this severed line touched would have experienced 15000 volts at 200 to 400A. After knockdown, the wire was seen to be contacting the ground approximately 2.5m from the building. It is unclear what precisely lit on fire first, but within a couple of meters of where the hydro line lay was a pile of wire and a child's bicycle. After the fire, the only traces of tires on the child's bicycle were the steel bands. Upon interviews with caller A. Green, neighbours C. Dimmock and K. Pavlatos, reports are clear of electrical sparking, and even light that looked like lightning. It seems rather transparent that the electrical symptoms preceded the fire, and certainly the fallen tree was not caused by the fire. The conclusion of both the chief and deputy chief is that the severed hydro line caused the fire.

Chief Peter Clark, SIVFD

September 28, 2020