

#1A Drive Motor Incident
MV Walla Walla
11/8/2012

On November 4th, 2012, the ferry MV Walla Walla was birthed at WSF's Eagle Harbor repair facility. Electric Shop was in the process of stoning the commutator of 2B Drive Motor (DM) in #2 Motor Room.

The plan was to turn the shaft with the A propulsion loop and stone the B1 motor on the B loop. Captain Cynthia Bruner was in #1 Wheel House standing by.

Configuration:

- #1A DM had all brush and boxes removed except one set
- #1B DM was intact
- #2A DM was intact
- #2B DM had all brushes and boxes removed
- #2 exciters on line
- #1 exciters locked out
- 2A Drive Motor only selected on exciter setup switch
- Plant in equal mode
- #3 Main Engine (ME) on line

All the brush boxes were removed from 2B motor, a wooden stone guide was installed as well as a vacuum tube. #3 ME was online to provide power to the A loop. Being motor 2B was to be stoned no power was applied to B loop.

At 1015 hr Propulsion Reset button was reset, #3 ME was placed in "Standby" and the shaft was "bumped" in the ahead direction to test rotation. The proper wooden block was installed and readied for stoning.

At 1049 hr #3 ME was then put back online and the shaft was brought up to 40 RPM's. The electricians, Mark Levang as Lead, began stoning the commutator. I went back to the #2 Motor Room to observe the stoning of the commutator. After a period of time C/E Settles called on the radio to say that the shaft had slowed to 30 RPM's. Lead Electrician Levang wanted the RPM brought back up to 40 rpm, which I relayed. He then requested the DM fan turned on. When I noted the fan damper was still closed and went to investigate the general alarm was sounded indicating a fire. At 1057 hr 1A Drive Motor Air Temp High alarm sounded. About this time, I was told, Oiler Steve Sourelos had seen smoke coming from the #1 Motor Room and he found the #1 DM arcing. He ran back to the Control Room and notified CE Settles who then secured the alternator setup switch and secured the ME. Under direction, Oiler Sourelos secured the Motor Room WTD, rang the General Alarm and stood-by suited up in Bunker gear. At 1059 hr, Chief John Settles secured #3 Main Engine and dropped out the propulsion loop. He told me that he saw through the Plexiglas port,

via the Motor Room camera, arcing and smoke coming from #1A motor. Once the propulsion was secured the arcing stopped.

We, crew and electricians, mustered in the Control Room and watched the situation via the camera for 45 minutes before pressurizing the Engine Room, opening the WTD and venting smoke through the Motor Room aft escape hatch to atmosphere. During this time I did not see arcing, fire or new smoking. We then went back and looked into the Plexiglas port and noted the damage. I told everyone not to open up the cover. We would wait until after lunch and let things cool down and gases vent off. I continued to monitor the camera during lunch.

After lunch we opened the cover and we saw the damaged commutator. I contacted Port Engineer Mullan and informed him of the situation. He requested photos and I complied. He later requested that we isolate the motor issue, clear the commutator and continue stoning. After a discussion, I told the electricians not to touch anything and that we would leave things as is for safety and any possible investigation.

At this point, the day's motor activity was concluded.

No one was injured by this event.

Bruce Cooper, SCE
MV Walla Walla