

- Date of incident: Tuesday 24/6/14
- Rough time of incident: ~2pm
- Chipper started chipping as normal at 8am. Chipped for around 6 hours without any problems or indications of faults. The driver stopped at 12 noon for half an hour for lunch break. The chipper had therefore worked for around 1.5 hours when the operator suddenly saw smoke and then some small flames coming out of the LHS of the chipper. The operator immediately stopped chipping and shut down the machine.
- The operator then got out of the cab at the same time as some of the power station operatives had run across to the machine with the fire hoses. Together the workers put out the fire relatively quickly (less than 1 minute) and no harm was done to any of the workers or any other machinery except the chipper. In my opinion, this is an excellent response time and all the workers should be congratulated on their timely efforts. Once the machine was made safe, the incident was reported by JSV to the site manager and foreman.
- On **initial impression** the fire had started seemingly in the wiring loom which lies inside a chassis rail which runs right around the machine. The fire was in and around the housing around the engine.
- The damage done by the fire deemed the machine not fit to use and Peter Kitt (PK) (Site Manager) asked J & S Vicary (JSV) to remove the machine as quickly as possible to minimise any further issues for the plant. JSV then agreed with PK to manually fold up the chipper and move it to the BOC side of the shed and out of the way of normal power station traffic.
- JSV worked quickly to find a solution to maintain chipping production at the plant and a replacement machine was working at the plant the following morning. The chipper truck was removed from the plant on the Friday 27/6/14 to go for repair.
- With regard to actually putting out the fire, two water hoses were used and a large fire extinguisher which the JSV operator got from inside the engine cover on the opposite side of the machine.

With reference to a telephone call between Mike Jackson (MJ) and Chris Vicary on Thursday 10/7/14:

- Chipper Truck **has** been repaired by the authorised dealer Westcon and Jenz supplier as well.
- Repairs and testing completed on Tuesday 8/7/14
- Further testing done by JSV and Westcon on Thursday 10/7/14 with everything running well without any issues. The dealer (Westcon) has now deemed the machine fit for use again.
- Findings from carrying out the repairs are that:
 - o The reason for the start of the fire has not been found
 - o The engine or engine related items (turbo, exhaust, etc) have been ruled out as being related
 - o The fire was only in the chassis section but naturally looked bigger with the flames and smoke
 - o The chassis section holds some wiring looms including the main wiring loom and also some small grease lines and several hydraulic hoses.
 - o Westcon and Jenz have not stated what they think has started the fire, however they did state that the machine was very clean and free from any lost oil or spilt chip etc.
 - o JSV believe that fire was started through some kind of manufacture or part error where a naked wire (perhaps due to rubbing through) has made contact with the metal chassis and created a short (therefore a spark). It has then got so hot that it melted the nearby grease and or hydraulic lines and therefore had access to the fuel which accelerated the fire.

Improvements going forward:

- MJ suggested we looked at an automatic fire suppression system inside the engine compartment. This has been looked at previously and will be looked at again. However previous systems available have not been proven to be any quicker. In addition, the automatic suppression system completely sprays the whole machine (internally) and contaminates some of the parts, meaning that more parts would need replacing or repairing at a later date. Due to the machine only ever running when it is manned, JSV believe that an automated system is not required but the option will nevertheless be looked into as a retro fit option.
- There is currently one large and one small fire extinguisher on the chipper. JSV will as matter of course now fit 2 more large extinguishers around the machine and 1 of these especially outside of all compartments so that it is even quicker to access if ever required again. The large extinguisher which was used in the incident has been refilled and checked by the fire protection service. Certificates of this will be sent through to the Power Station.
- Make sure all staff and operators are aware of the risks of fire and take out training so that they can respond adequately and positively (as per this time) in the future.

Report written by: Chris Vicary

Company: J & S Vicary

Position: Partner

Signature: