

Internal Task Force – Executive summary

The event of intense rainfall which began on the night of the 16th of February 2018, resulted in a rainfall of 231 mm in 12 hours and 239 mm in 24 hours, followed by significant rainfall over the next 10 days.

The extreme rainfall resulted in large amounts of water needing treatment upon release.

The large amounts of rainwater led to a flooding in Area 45.

At the same time, an internal power outage, due to lightning, reduced the water treatment capacity.

In addition, an external power voltage dip led to interruptions of production equipment in the refinery. This caused spill of process water containing caustic soda in the process area going to the Effluent Treatment Plant (ETP). This impacted the effluent water treatment plant capacity.

Because of the reduced capacity in the ETP it was decided to contain water in the DRS basins, so that the treatment capacity could be reserved for storm water from the plant area.

The flooding of plant areas, overflowing from the Canal Novo to the Canal Velho and filling of the ETP collection basins resulted in the need to divert rainfall run-off from the refinery area to the Canal Velho and into the Para River in order to mitigate environmental risks during the critical period.

The effects to the Para River were limited to the pH limit being marginally surpassed for very short periods. However, on average effluent concentration was well within the prescribed limits between pH 6 - 9.

The operational integrity of the bauxite residue deposits 1 and 2 was maintained during the event, and there was no overflow from the deposits.

The Internal task force recommends measures to increase capacity and improve the integrity of the overall effluent water treatment system of Alunorte. Investments for this purpose have already been decided by Alunorte, as communicated on March 16.