**Action 0304 – NSMP response 21 April 2017**

DOD to seek a more detailed understanding of how the plant operates at the right Wobbe Index level and the effect on the CO2 levels/liquids.

**NSMP Response**

The composition of export gas from St Fergus is monitored by the control room and procedures are in place to ensure the specification of export gas is maintained. NSMP is fully aware of the composition of commingled pipeline gas upstream of the terminal and therefore we would be aware of higher CO2 concentrations in FUKA pipeline gas well before such gas reaches the terminal (as we are today). If our pipeline operating model suggested that by processing such gas, the lower specification for Wobbe Index might be breached we would modify the operating conditions at the terminal (specifically levels of NGL extraction) to ensure that the specification for export gas is met. This can be done relatively quickly and well within the anticipated transit time of any high CO2 gas present within the pipeline.

To answer the questions relating to CO2 concentrations in liquids export and maintaining water dew point, we have run a number of HYSYS simulations with gas compositions up to 6 mol% CO2. We can confirm that at higher concentrations of CO2 within the pipeline gas the CO2 content of the NGL does increase however in all modes of operation required to maintain the NTS gas specifications the CO2 content of the NGL remains less than 0.001 mol% which is well below the specification limits for our NGL export. In theory, there is some impact on the water dewpoint of export gas through increased CO2 content however, this is taken care of by the gas dehydration system and in all cases modelled the sales gas remains well within spec (by a margin of over 400C).