

From: HSES

Date: 5th June 2008

Subject: High Pressure Incident; Overpressure of Dive System Pipework

1.0	BACKGROUND
	An incident has occurred onboard a DSV whereby pipework fittings have failed catastrophically due to overpressure
2.0	SUMMARY
	<p>Whilst dive personnel were analysing diving gas and changing over supplies to the analyser, High Pressure (HP) gas was vented to the reclaim bag. As the reclaim bag already contained some gas the volume of the gas being vented filled the bag and caused a solenoid operated valve to shut. This in turn caused the connecting pipework to be pressurised and some fittings failed catastrophically No one was in the vicinity at the time but the pipework affected was situated close to a busy access way between the deck and bell hanger space. The pipework and bag had been repositioned during a recent dry docking; however the control measures used previously to monitor the contents of the bag had also been changed. Additionally the pipework contained a mixture of HP and LP fittings.</p> <p>As this is clearly a High Potential incident a full investigation is now underway.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="336 1037 823 1592"> </div> <div data-bbox="986 1055 1430 1507"> </div> </div>
3.0	LESSONS LEARNED
	<ul style="list-style-type: none"> On examination it is now evident that the fittings that failed were rated for a working pressure well below that experienced in the above sequence of events. The control measures to monitor the bag contents were heavily dependent on human intervention and interface between 2 separate control rooms
4.0	CONCLUSION
	<ul style="list-style-type: none"> Low pressure fittings experienced an unforeseen high pressure build up and failed catastrophically Further guidance will be issued once the investigation is complete
5.0	ACTIONS
	<ul style="list-style-type: none"> Chief Engineers are required to check all pipework & fitting within diving gas reclaim systems to ensure equipment of suitable pressure rating is utilised for the service intended

	<ul style="list-style-type: none">As the scenario outlined above could conceivably apply to all air / gas pressurised systems, all high to low pressure reducing / venting systems throughout the vessel should be similarly checked
6.0	REFERENCES
	<ul style="list-style-type: none">Synergi case 56741(UK) Pressure Systems Safety Regulations 2000
	MESSAGE ENDS