



OUTER HOUSE, COURT OF SESSION

[2018] CSOH 113

A222/15

OPINION OF LADY WISE

In the cause

(FIRST) STUART WHITE

(SECOND) DAVID SYMON

Pursuers

against

ADVOCATE GENERAL FOR SCOTLAND

Defender

**Pursuers: Heaney, advocate; Addleshaw Goddard
Defender: Olson; Morton Fraser LLP**

7 December 2018

Introduction

[1] This case involves a tug boat called the Golden Cross. She was built on the Clyde by Scott & Sons in 1955 and was the last of her class. In early May 2013 she started sinking while attached to an MOD buoy on Loch Goil. Ultimately the Golden Cross was beached on the bank of the loch and could not be salvaged thereafter. The circumstances in which that occurred are the subject of dispute between the parties.

[2] The pursuers owned the Golden Cross at the material time. The first pursuer and his late wife had held 42 shares jointly and 22 shares were owned by the second pursuer, but the

first pursuer now holds his late wife's interest as well. The defender is the Advocate General for Scotland representing the interests of the Queen's Harbourmaster for whom the defender is responsible in law. The pursuers contend that the Queen's Harbourmaster failed to exercise reasonable care in the decisions taken when the Golden Cross was found to be sinking on Loch Goil and seek damages for that alleged negligence. The defender disputes that reasonable care was not taken and counterclaims for the cost of the operation to control pollution and re-float the vessel after she was put ashore. I heard evidence and submissions in this matter over a period of five days.

Undisputed facts

[3] Counsel entered into a joint minute of agreement at the outset of the proof detailing some helpful but undisputed facts. The following is a summary of those. In September 2011 the Golden Cross was towed by Svitzer Marine, a reputable international tug company, from the River Fal in Cornwall to the Firth of Clyde. Svitzer charged a fee of £1 for the operation. Before she was towed, the Golden Cross' hatches and doors were covered and sealed. She was inspected and found fit to be towed. She was insured. On or about 16 April 2013 the Golden Cross broke loose from her moorings in Loch Long at Ardentinny. She ran aground on Ardentinny Bay. At about 0849 hours that day, the first pursuer gave David Lightfoot the Queen's Harbourmaster Clyde ("QHM") his mobile telephone number. On 17 April 2013 Mr Lightfoot, acting under his statutory powers, had the Golden Cross towed from the beach at Ardentinny on Loch Long to buoy D16 in Loch Goil.

[4] On 3 May 2013 at 1005 hours a local fisherman reported to the QHM that the Golden Cross was down at the stern and her afterdeck was awash. At 1255 hours that day the RNLI Helensburgh lifeboat attended the Golden Cross and took video and audio footage

(production 7/6). Eleven minutes later the Deputy Queen's Harbourmaster ("DQHM") sent an email in which he said that his plan was to beach the Golden Cross at Rubha Ardnahien on the southern shore of the entrance to Loch Goil. At 1513 hours that day Ian Collins of Salvage & Marine Operations, Faslane attended at the Golden Cross. Jamie McGarry of GSS (Plant) Ltd, Silverhills, Rosneath also attended the Golden Cross, at 1730 hours that day and reported that there was a significant amount of oil in the engine room. The following day, 4 May, the DQHM told PC Alan Cutter of the MOD police that the plan was to beach the Golden Cross between around 1330 and 1400 hours. The Golden Cross was beached at Swine Hole on the bank of Loch Goil, the process having begun at 1325 on 4 May. The high tide that day was at 2116 hours. A number of productions including photographs and video footage were agreed and these were referred to during the course of the witness' evidence. A very specific timeline of events between 16 April and 9 May 2013 was also agreed and produced as an appendix to the joint minute. The weight of oil recovered from the Golden Cross by Briggs Environmental after she was beached was estimated to be approximately 1.5 tonnes, equating to about 1500 litres of recovered oil. After the clean-up, the Golden Cross was re-floated and towed away to be broken up on 10 December 2013.

Evidence in the pursuers' case

[5] The first pursuer, Stuart White, is a retired 72 year old man who explained that he and his late wife lived on the Golden Cross for many years prior to it being transported up to Scotland for renovation. His late wife died in 2015 which had led to a delay in the case coming to proof. Mr White spoke in quite emotional terms about the Golden Cross which he and his wife had effectively saved in 1996. He explained that she was the tug that had

taken the Royal Yacht Britannia on her first overseas voyage and he and his wife had been invited to take Britannia to Cardiff Bay at the end of her time at sea.

[6] In 2011 the owners of the Golden Cross decided that she should be sold. Mr White said that they were contacted by a businessman who was building a resort in Poland and that he made an offer of around £120,000-£130,000. In the event he and the other owners decided not to sell as they felt they had a good chance of getting financial support from the Scottish Government and from business people to restore the vessel.

[7] Mr White confirmed that a detailed survey of the Golden Cross was prepared by a Mr Copeland in March 2011. On being shown a letter to him from a Mr Copeland, boat surveyor, of 29 March 2011 (6/8 of process, appendix 2) he agreed that a list of 30 matters that needed attention before the boat could be towed were listed there. These were done with the help an engineer. A towing certificate was then issued following the necessary approval being given. The approval listed various aspects of the vessel that needed checking but recorded "no significant damage". The current stability booklet for the vessel was available and dated back to about 1975. Mr White confirmed that the bilges were all pumped out so that they were clean and dry. These ran underneath the main engine room for about half of the length of the ship. He confirmed that the tanks in use on the Golden Cross were fuel tanks including an oil tank for keeping fuel in the engine room area. When transported from Falmouth the Golden Cross had between a quarter and a half a ton of fuel in the header tank but the other tanks were empty.

[8] Mr White spoke to the stability booklet (number 6/14 of process) which related to the vessel whose previous name was "Dunheron". He explained in detail the various parts of the Golden Cross. In particular, he said that a brand new bilge pump had been donated to the owners without cost and was on board the Golden Cross at the material time. That

could pump out at a rate of 1,000 litres a minute and Mr White described it as a very effective pump to take water out of the vessel very quickly in an emergency. It was powered by electrics and could be deployed *in situ*. He said that the necessary motor was fitted and just needed a power supply. There was a new Pramac generator on board which was a modern model albeit that the old generator was still functioning. It had been thought helpful to have a new generator on board for the voyage from Falmouth.

[9] Under reference to a chart (number 6/19 of process) Mr White explained where the Golden Cross had been moored at Ardentiny in April 2013. She had been moored to a buoy belonging to the Ardentiny Hotel. When she broke free of that mooring she was washed up just north of Ardentiny at Finairt Bay. Having been taken back to Ardentiny she broke free of her mooring again and was then taken off by the MOD contractor tug. The pursuers were advised that an alternative berth would have to be arranged for the Golden Cross. While one was available in Greenock, the civil harbourmaster there said that another survey was required before she could be taken there. It was in those circumstances that the Golden Cross was moved up to the mouth of Loch Goil onto buoy D16.

[10] Mr White was shown documents (6/016-6/0114 inclusive) indicating that various individuals had offered assistance financial or otherwise to help with the project of getting the Golden Cross to be put on show at Glasgow Maritime Museum. However the restoration programme had not started by the time of the events forming the subject matter of the dispute. Mr White was taken to email correspondence between him and the QHM on 16 April 2013. At that time Mr White had indicated that he was making arrangements to move the Golden Cross but was waiting for better weather. Mr Lightfoot expressed concern that the mooring arrangements for the Golden Cross appeared to have failed again and asked Mr White to keep her secure. Other emails at that time indicated that Mr White felt

that the QHM was being both professional and helpful and that they had been engaging well about the issue. However, in an email at 8.50am on 16 April Mr Lightfoot had reminded Mr White of his (the QHM's) powers under the Merchant Shipping Act in relation to wrecks. He specifically asked Mr White to confirm that the Golden Cross was fully insured. Mr White had responded to that email at 15:14 the same day confirming that he was currently arranging appropriate documentation to tow her to a harbour berth. In that email he stated "luckily, she is not leaking or holed this time and is completely watertight." The insurance question posed by the QHM was not answered. Mr White said in evidence that although they had taken out insurance for the trip up the Irish sea it had expired by 2013 and so the vessel was uninsured. His understanding was that on 16 April 2013 the QHM was giving him about ten days to move the Golden Cross from the buoy.

[11] On 17 April 2013 at 13:15 the QHM David Lightfoot sent an email to Mr White indicating that he intended to undertake the task of a recovery of the Golden Cross given that Mr White did not appear to be in a position to do so. David Lightfoot asked for one of the owners to be on the vessel at 4pm to assist his team. The intention was that the Golden Cross would be put back on her mooring at Ardentinny. Mr Lightfoot again asked for confirmation of Mr White's recovery of wreck insurance. A number of other emails from that time were shown to Mr White (numbers 6/41 and 6/51) which illustrated that efforts were being made to find somewhere for the Golden Cross to berth. Nothing came of any of these enquiries while the Golden Cross was tied to the D16 buoy during the second half of April 2013.

[12] On 3 May 2013 Mr White received a phone call from the QHM informing him that a local vessel had reported that the Golden Cross was down at the stern. When asked why he had not gone immediately to the Golden Cross on 3 May, Mr White's position was that he

was told he was not needed and that the MOD had their own salvage experts. He had received only the one phone call from the QHM. On 4 May 2013 Mr White had contact with the Deputy QHM (Ian White) as Mr Lightfoot had gone on leave. The DQHM spoke to Mr White at 8:06am and according to Mr White informed him that they were responding to the Golden Cross being in trouble and said that he did not need the assistance of Mr White or the joint owner Mr Symon. Mr White's position was that he had asked twice whether he could assist and was told that the harbourmaster's department had their own salvage experts and that they would handle the situation. He said he was not asked for any documentation from the owners but simply advised that the decision had been taken to beach the vessel. Mr White asked how, when and where that would be done and was told that he would be advised afterwards when it was beached. Mr White's position was that he was at home in Ardentinny on 4 May and it would only have taken him 15-20 minutes to get to Swine Hole where the Golden Cross was beached. He acknowledged that it would have taken him quite a long time to get up to the buoy D16.

[13] Photographs (7/5 of process) were shown to Mr White who confirmed that these showed the Golden Cross down at the stern by about 2½ feet. He said that most tugs even in good weather have some water on their deck which would normally drain away. He had not taken the photographs in question but went through where the photographer must have been when they were taken. When asked what he would have done had he been present on 4 May at the Golden Cross, Mr White said he would have suggested pumping out the engine room so that the water was at a level where it was safer. He did not understand there to be any oil pollution problem because oil floats to the top. Alternatively the water could have been pumped into empty tanks. The photographs illustrated a collection of water in the stern and Mr White agreed that as the ship was going down at the stern

everything would be collected at the stern end. Mr White said that having known the vessel for 18 years he formed the view from the photographs that what must have occurred was an extremely small slow leak while she was on D16. He suspected that the packing round propeller must have come off when she was moved. The surveyor had made sure that it was tight and there was no water ingress but it could have come off subsequently. He confirmed that it was not a difficult job to get access to the stern gland to pump the water out. The pump was inside the bilge at the lowest possible level and had been checked when Svitzer had inspected the vessel. In an emergency the outflow would be over the side of the vessel, out of the engine room door or a port hole. Mr White confirmed that the pipes were already attached to the submersible pump for that to do done. He said that the pipe was red. It was a brand new fire hose and anyone knowing that the pump was there would just attach it to a power source which would start it automatically. Obviously if a generator was being used an outside power source was required. Although a hand pump was possible it would be slower.

[14] On 5 May at about 8am Mr White and his wife and Mr Symon went to the place where the Golden Cross was beached. He said he was surprised to find that she was about three quarters sunk into the water with the stern end being under water. She was attached by what looked like parcel string to a couple of rocks and did not seem to be on a sandy beach of the type described by the DQHM. Under reference to a brochure number 6/16 of process entitled "the Golden Cross incident" which Mr White said he had assisted in preparing, he identified a photograph in section 9 of that brochure as being one taken at the place at Swine Hole where the Golden Cross had been beached at low water. When the tide had then come in the vessel had been swamped. Mr White explained that the Golden Cross remained under water for a couple of months. He said no one contacted him or Mr Symon.

Various photographs showing the Golden Cross “in better days” were put to Mr White (number 6/16 and 6/17 of process). These photographs also included those taken after the vessel sank. Mr White pointed to one photograph in 6/17 of process in particular which had depicted the door to the engine room, a blue door, being open. He said that if it had been left open when the vessel was beached and the high tide came in water would then flood the engine room.

[15] When Mr White saw the vessel on the beach he realised that there was no real hope of salvaging her. He received an email from QHM Lightfoot on 8 May 2013 (6/52 of process) asking him to confirm again whether the vessel was insured for wreck recovery and also who was the legal owner. On 9 May 2013 Mr White replied confirming that the vessel was not insured, that the owners were unable to effect recovery and that it seemed unlikely that restoration of the vessel could take place. Mr White commented in that email, however, that he was encouraged by the fact that DQHM Ian White had advised him that the pollution was not as bad as expected. When asked why there had been no attempt to re-float the vessel, Mr White said that he and his wife had been told they could not even go on to the Golden Cross to collect their belongings because it was a Tier 2 oil spill in a national park area. Eventually, on 6 December 2013, once the Golden Cross was tied up at Rosneath, Mr White went aboard and said that a number of brass objects and historic items which had been bolted on to the side of the vessel had been removed. The whole ship was wrecked inside and there was nothing left. He rejected any suggestion that the Golden Cross was effectively as good as a wreck when she was on buoy D16 in April 2013. He described her as a “lovely little vessel” and he and his wife had been devastated to lose their home and work of 18 years. He regarded it as totally unnecessary that they lost the vessel. After he raised proceedings Mr White realised that he would need an expert witness and so found

Captain Ken Heiser on the internet having researched and found that he had been involved in the Costa Concordia salvage.

[16] Under cross-examination Mr White confirmed that while full insurance had been taken out for bringing the Golden Cross up from Falmouth that would have continued only for a number of weeks after she was towed. He was unclear as to whether the vessel was ever insured after she arrived in Scotland and accepted that she certainly was not insured at the time of the incident. She was at the time a “mothballed ship” and so there was no legal requirement to insure. When it was put to Mr White that the reason the Golden Cross was not recovered from the beach was his fault because he had no insurance and so could not effect the recovery he stated that he was not looking after the vessel at the time and that the MOD was. His position was that the MOD police, who were patrolling every day when the Golden Cross was on buoy D16, should have noticed that the vessel was down by the stern earlier than they did. He believed the most likely reason for that had been that the stern gland packing became dislodged which would allow water to get into the engine room, albeit slowly. He disagreed that it was more likely that there had been a rapid change in the vessel’s condition over a couple of days. He accepted that he had no idea how much water was on the vessel at the time she was going down at the stern. He was not qualified to calculate volume and did not profess to be an expert about how long it would have taken to pump the water out of the Golden Cross while she was still on the buoy. Had it been up to him he would have tried to pump her out as it would have stabilised the ship. He said that the DQHM had 19 hours to rectify the situation and could have pumped out the water. The connection for the pump was at the deck level on the gantry. He did not accept that the view was taken that it was not safe to do so as the DQHM had gone on board the vessel so must have assessed that it was safe before entering the ship. His position was that the

DQHM had just watched the vessel for 19 hours until it became dangerous and then took it and dumped it on national park land.

[17] A DVD (number 7/6 of process) showing the RNLI going to the vessel when she was on the buoy and being unable to access the engine room was played during Mr White's cross-examination. It was the first time Mr White had seen the DVD. He commented that the RNLI operative did not seem to try the bottom lock of the door to the engine room or the door on the other side of the vessel which he said was wide open. He accepted that the DVD showed water lapping over the back of the stern which would have been a concern. However this did not change his view as to whether water could have been pumped out to re-level the boat. He had understood that an MOD contract vessel was in the vicinity and he did not understand why this had not been done. He was taken through some of the chronology which he did not dispute. He considered that the MOD should have acted quickly but reiterated that nothing had happened until the evening of 4 May when they took the Golden Cross to the beach. It was pointed out to him that beaching the vessel had started at 1.25pm and he was unclear about that as he had not been asked to attend. He could not understand why the tug that was taking the Golden Cross to the beach had been lashed to her. He thought it was odd to lash a boat to a sinking ship. The golden rule should have been to get the water out. No one had given him any chance to suggest where it might be best to beach the Golden Cross if that was necessary or even discuss with him whether beaching was needed. He had seen no risk assessments and no logs of what had occurred. He and Mr Symon had pointed out twice that they could help by providing the stability booklet or going out themselves with life jackets. He stated that they were told firmly that others would deal with it. He had found it all very confusing. When it was put to him that in fact his reaction had been one of disbelief that the Golden Cross was sinking

and that he had not offered to help at all because he was confused and in denial Mr White refuted that contention. He disputed also that he had simply been advised that the vessel was not safe rather than being forbidden to go on to her.

[18] When asked how much he and his late wife had paid for the Golden Cross 18 to 20 years before the incident in question, Mr White confirmed that this had been something in the region of £35,000. After 16 full years of use travelling around in the vessel and conducting hundreds of events she needed renovation to her outside but was in good condition inside. She had been “mothballed” for about 3 years by the time of the incident although she was fully operational right up to the point where she had been towed from Falmouth. On the pump that was available on the vessel, the company that had installed it had put it in the deepest part of the ship. The electrical connections then ran up to a header tank and had a blue plug which, if it was put into a power source or a generator, would “fire up”. The blue plug was the standard one used in caravans and ships.

[19] It was put to Mr White that more than the 10 days he had estimated he was allowed to have the Golden Cross on the buoy had elapsed by 3 May when problems were spotted. He confirmed that during that period he had been arranging for a marina to take her on the Greenock side of the loch. However the civilian harbourmaster had said that he was not willing to accept her without a further survey and it was impossible to get towing approval without that. Mr White accepted, however, that this had not been an unreasonable stance on the part of the harbourmaster. He accepted also that the MOD contractors had few options but to put the vessel on buoy D16 in April. He accepted that on 16 and 17 April he had not replied to the QHM’s request for details of insurance. Mr White accepted also that he had not been keeping an eye on the vessel between then and Saturday 3 May as the buoy was a considerable distance away from shore. He had not inspected the vessel on 17 April but

Mr Symon had and there had been only a tiny amount of water (3-4 inches) in the bilges. He disputed that he had effectively washed his hands of the vessel after she was taken to Buoy D16. Various photographs were put to Mr White (7/5 of process) and his position was that these showed that the DQHM had beached the vessel at low water. Had she been beached at high water she would be nearer the grass but as that had not been done she was swamped when the tide came in. He described as a rule "all over the world" that a ship should only ever be beached at high water unless it was an emergency. If beached at low water there was a risk of pollution when the vessel became swamped at high water. It was put to him that the photographs illustrated that the vessel had sunk within about four minutes of being beached and had not been swamped, but Mr White said he regarded that as a matter for the experts. His own view was that because she was beached at low tide she slid backwards and so water had flowed in. He claimed that there was no credible answer by the QHM as to why they had not done more to look after the vessel. When he was referred to correspondence in which the QHM's position was set out he acknowledged that he had received these (6/52-6/55 of process inclusive) and that he had been told to seek legal advice. He accepted also that on 2 July 2013 the QHM had written to him and explained what was going to happen to the vessel and strongly advised him the vessel was not in a safe condition to board. He reiterated that it was at the earlier stage when the vessel was beached that he and his wife were prevented from boarding.

[20] On 12 July 2013 the pursuer received notice that unless the wreck was removed by 23 July the MOD would remove her using statutory powers. He had received that notice (6/68 of process) and a further notice of extension until 2 August to remove her (6/26 of process). He accepted that he was told that the MOD would exercise statutory powers to

remove the vessel if he did not do so. It had been beyond his financial capability to comply with the notice. Mr White continued to maintain that the vessel could have been saved.

[21] The second pursuer Mr David Symon gave evidence and confirmed that he continues to live in Argyll about four miles south of Ardentinnny where he had lived at the time of the events under discussion. He had a long-term interest in ships having studied at Glasgow School of Nautical Studies for a year after he left school and having crewed on his father's yacht for many years. He met the first pursuer and his late wife socially at the time when the Golden Cross was in Falmouth. He had gone to see her and was very interested in becoming involved. He contributed a sum of £30,000 in return for which he received 22 shares in the ship. He explained that at the time the Golden Cross was being towed to the Clyde she had been up for sale. A Polish gentleman had shown an interest and offered about £120,000 for her. Unfortunately this man died before coming to Scotland to view the vessel. An email from a Kenneth Gower (6/123 of process) was shown to Mr Symon who confirmed that Mr Gower was the gentleman who offered for the Golden Cross. The email confirms that he offered £105,000 for the vessel and Mr Symon agreed that may be correct as Mr White had dealt with the specific details of the proposed sale. In relation to the Copeland survey of the Golden Cross carried out before she was towed Mr Symon confirmed that he was present when Mr Copeland carried out the survey.

[22] In April 2013 Mr Symon had gone aboard the Golden Cross before she was taken to buoy D16. He had been looking for damage outside and he went inside to check if there was any water ingress. There was about six inches of water in the bilge which he described as normal. He would have been unable to inspect the stern gland which he was not familiar with. On 16/17 April the door to the engine room was watertight. The handles were on "dogs" which create a seal and on the port side there was a door to the galley which was

also watertight but operational. He described the condition of the superstructure as “fine” on that date although the vessel needed a lick of paint. She could not have come from Falmouth if she was the wreck that witness statements now described. All vessels have some rust which can be blasted off but she was generally sound. On 3 May 2013 when news came that the Golden Cross was down at the stern Mr Symon had no personal contact with the MOD or the QHM at all. He spoke to the first pursuer who let him know what was going on. He recalled that he wanted to go out to the vessel but had been told that they were not needed because the MOD had their own experts. He could have reached bouy D16 in about 20 minutes on his own launch depending on the weather.

[23] On 4 May Mr Symon drove up to Loch Goil and walked a mile to get to the ship. Although he had been told to stay away he wanted to view her while not interfering with the MOD’s security issues. However he did not see the vessel before she was beached and did not see her again until 5 May. This was because although he had his launch and wet weather gear and was ready to go, Mr White had advised him that they were not to go to the vessel because of the Tier 2 oil spill. He described Mr White as a lot more experienced than he was in relation to what might have been done to save the Golden Cross. He was angry at the loss of the vessel and in particular that he and the first pursuer were not allowed to contribute to try to save her. He felt that if she had been taken back to Ardentinny he and Mr White could have pumped her out and taken her to a dry dock. He had a lot of friends who could have helped out.

[24] Under cross-examination Mr Symon agreed that he would have expected Mr Gower to have surveyed the Golden Cross before finalising any purchase. On the events of May 2013, he agreed that he had never personally spoken to anyone at the MOD but he claimed that they knew he was one of the owners as he had received a letter after the ship

was beached. When it was put to him that the DQHM might say he had never made an offer to help on the day in question he disagreed. He claimed that the Golden Cross was being checked every day by either him or the first pursuer when she was at Ardentinny. If she had been put back on the buoy there she would have had daily checks. Mr Symons' position was, like Mr White, that even assuming that water was coming into the Golden Cross quite quickly he would have started to pump her out which could have been done at the rate of 1,000 litres per minute. There was both a spate pump and a diesel one on the deck and had these both been working they could have tried to save the vessel or even beached her on the flat beach at Ardentinny. He maintained that the photographs illustrated that the vessel had taken a few days to sink.

[25] William Copeland, a marine surveyor aged 51, gave evidence. His business is known as Copeland Yacht Surveys Ltd in Truro, Cornwall. His survey report (number 6/8 of process) confirmed his survey of the Golden Cross. Mr Copeland has a diploma in marine surveying and the majority of his work involves leisure cruisers of up to 20 metres and also work boats both commercial and non-commercial. He had surveyed two tugs in total including the Golden Cross. However tugs were in a similar category to work boats and he was able to express views on them.

[26] Mr Copeland had first seen the Golden Cross in 2011 the day after he had been contacted by the first pursuer. At that time he performed a tow approval survey. It was the first one he had ever performed and so he received guidance from someone more experienced in that matter. After the survey he had written to the first pursuer telling him what had to be done to satisfy the tower that the vessel would arrive at its destination without problems. He knew that Serco were probably going to do the towing. His letter confirming everything that had to be put right was dated 29 March 2011. He then visited

again in August 2011 and went through the list and provided a final list. In fact he had never been involved in the issue of towage approval and did not know who had ultimately provided that. He thought he would have seen the stability calculations for the vessel. So far as the bilges were concerned these had not been pumped out in March but they had been by 4 August 2011. He checked also that the fuel and water tanks were as empty as possible as fuel in tanks can affect the stability of the ship. He noted that the port and starboard had full tanks and the aft tank was empty but the header tank was approximately one half full. Its capacity was 1,000 litres and so there were about 500 litres in it. The oil tank was one third full which was about 200 litres in a 600 litre capacity tank.

[27] Mr Copeland explained that the stern gland of the vessel was where the propeller shaft exits the boat. When this is subjected to excessive wear and tear it can leak.

Accordingly he had recommended that it be tightened up and the propeller shaft was strapped up to prevent rotation and left in gear. The packing within the stern gland is greased and forms a watertight seal around the propeller shaft. This was one of the critical areas where leaks could happen even in a well maintained boat. If water comes in to the stern gland it enters the bilge of the vessel. He had made a note only that the Golden Cross had a spate pump and not that there was a bilge pump which would be permanently in the bilge unlike the spate pump which was portable and could be moved to be used in an emergency. Although he had not seen one, he confirmed that it would presumably be possible to fit a bilge pump into the Golden Cross. By 2011 the Golden Cross was a long way off being operable as a commercial tug and so he valued it as a pleasure craft at £75,000. There had been no exact comparators and so he had used his experience and the views of others in fixing a value. The value of £75,000 was an open market willing buyer willing seller basis. He was unaware of the original purchase price when the first pursuer had

acquired her in 1996 nor of any offers made for her. Had he known of an offer of £105,000 in 2010 that might have increased the valuation a little such that he would have valued her somewhere between £75,000 and £100,000 but he felt that £105,000 was too much. In essence, the Golden Cross was worth about £75,000 in 2011 and the value would be similar in 2013.

[28] Under cross-examination Mr Copeland accepted readily that his valuation had been within a range and that on one view £75,000 was at the top end of a reasonable valuation. His band at the time had been £55,000 - £75,000 and even hearing of the offer that might have been made in 2010 he would stand by his valuation. On the issue of the towage approval, his report had been in draft in March 2011 and updated in the August. He did not hear anything from the first pursuer again and he would only have signed off for towage approval when the actions were completed to his satisfaction. He would normally have expected to sign it off himself given that the purpose was to give comfort to the towing company. He was not sure how he would value it on the basis of photographs of the Golden Cross in 2013 showing her with water slipping over the stern without information about why that had happened and whether she was about to sink. He confirmed that once the vessel had sunk it became a liability and not an asset at all.

[29] Ian White the Deputy Queen's Harbourmaster for the dockyard Port of Clyde gave evidence. Mr White is 53 years old and took up post in 2014 when the position of DQHM was civilianised. He had been working effectively in the same role prior to that but as a Royal Navy employee. He had worked in the Navy since leaving school at 16. His position by the time he left in 2008 was as a lieutenant commander. His senior officer had been Mr Lightfoot who was a commander and who became the QHM in 2014. Most of Mr White's experience was as a navigating officer of submarines and also of ships. He had

worked at DQHM Clyde from March 2012, about 13 months before the incident. In April and May 2013 his role was to deputise for the QHM when he was away, to look after the safety of the Port including consideration of environmental issues and to keep things running smoothly. His jurisdiction involved the Gare Loch, Loch Long and Loch Goil. There were memos of understanding to allow MOD ships to pass through various waters. Loch Goil has a static noise range machine and there are various mooring points in that Loch used by the MOD. The mooring system at the mouth of Loch Goil is complex because there is a narrow channel through which submarines are required to pass. Mr White confirmed that Loch Goil has static noise range (SNR) and that the mooring points are mostly in the Gare Loch but also there is one at the entrance to Loch Goil, that is buoy D16 to which the Golden Cross was moored.

[30] Ian White first met the first pursuer, Stuart White on 3 May 2013 after he had spoken to him by telephone just before 4pm to explain the concerns about the vessel. The conditions that day were that the weather was starting to brew up and the water was choppy. He had no recollection of speaking to the first pursuer about whether or not he could go aboard the Golden Cross. Mr Collins, a salvage expert and MOD civil servant went out to have a look. Mr Collins went round on a police boat or small craft. His assessment was that it was not safe to go on board the Golden Cross with a portable pump. Ian White agreed with that decision and considered that it would not have been safe for the owners to go aboard the vessel. He confirmed also that while it was not usual for the RNLI to attend to an unoccupied commercial vessel, the role of that organisation was to look out for safety generally and they were on the loch for that purpose. Ian White had not spoken to the first pursuer about any pumps there might be on board on the first occasion he spoke to him. He was interested in securing information from the first pursuer about the layout of the vessel,

the tanks, what fuel was on board and so on. Stuart White had emailed him a basic drawing and said that apart from the header tank the fuel tanks were empty and the bilges clean.

Ian White specifically denied that he had told the first pursuer that he had people dealing with the matter and that the pursuers should leave it to them. He had not specifically asked the first pursuer for the stability book or in relation to what pumps were on board until after the event. He told the first pursuer that he was going to go onto the vessel himself to make a plan.

[31] On 3 May 2013 at 13.11 Ian White sent an email to colleagues and relevant personnel, number 6/62 of process. In that he indicated an intention to beach the Golden Cross at Rubha Ardnahien which local knowledge indicated had previously been used for beaching. The ideal spot for beaching would be soft territory that allowed the boat to remain upright. The DQHM identified the area at Swine Hole where the Golden Cross was eventually beached on a chart 6/64 of process. Ian White had no recollection of speaking to the first pursuer on 4 May at 8.06 but agreed that he might have done so to tell the first pursuer what was going to be done. He was clear that he had been unable to formulate a final plan until he got to the vessel to check her. Accordingly, any general statement he might have made about taking the Golden Cross to a safe sandy beach was in the context of his having had a tentative plan subject to his assessment of the vessel. A number of factors had been in his mind at the time including the depth of water at D16 and a relative salvage cost if the Golden Cross sank there. The MOD had a rib out in the area and were able to help. There was also a SERCO vessel in the area and Ian White thought that the first pursuer could have gone on that had he wanted to attend the vessel.

[32] On 4 May when Ian White arrived at the Golden Cross the weather had improved. He confirmed that Jamie McGarry of GSS (Gareloch Support Services) had attended the

Golden Cross and reached the same conclusion as he had, namely that she could not be pumped out. Mr McGarry confirmed this in an email to Ian White on 4 May 2013 at 9.26 (6/127 of process). He reported that he had managed to pry open an upper engine room hatch for a look which revealed that the water in the boat was extremely contaminated with oils and grease which would preclude them from pumping into the loch. Mr McGarry stated in terms: *“Should she sink before we can empty her I think you are looking at a pretty major spill situation”*. The email had gone on to tender advice in relation to the issue of beaching the vessel. Ian White had a number of reasons for deciding at the time that the Golden Cross required to be beached. First was his concern about the serious environmental impact of taking any other course. The area in which buoy D16 is situated is one of marine conservation and he was concerned that he would be ignoring that if he did not move the vessel. Secondly, even if he had worked out a way to pump out from the vessel with her in situ, he could not just pump it into the water without permission. He agreed that it was important to make a risk assessment in making decisions on the issue. Standing the events of 3 May he could not undertake a formal risk assessment but had made a dynamic one. Thirdly, and following that assessment hazard had been identified and he required to assess the implications of that in a short time frame. At the top of his list of priorities were preserving life if that was relevant and also preserving property. One of his first thoughts had been to try to save the boat if he could. The location of the vessel was a central factor.

[33] When Ian White got on board the vessel with Michael O’Toole from SERCO he accessed the engine room space from a hatch at the top. It was not padlocked and he managed to pull it open. He stood at the top of the deck plates in the engine room which had a runged ladder. Mr O’Toole was acting as the “safety man”. He was holding on to Ian White. Both men could smell oil and realised they had to be able to get off the vessel

quickly if there was a catastrophic incident. Ian White concentrated on trying to identify any obvious place of the leak. He could see the glint coming off the oil and water in the engine room. It was clear that the Golden Cross was a hazardous site to be on. Because she was situated inside the port area, the decision about what to do was within his jurisdiction. It had been unusual to use an MOD buoy to moor a commercial vessel but the agreement had been that it would be moored there for ten days to allow the first pursuer to move it and that the MOD would keep an eye on it meantime. The D16 mooring was required again by the MOD by the end of May 2013 at the very latest. Ian White had been aware at the time of the “rumblings” in the Ardentenny community about previous trouble with the mooring of the Golden Cross.

[34] After taking photographs down in the engine room, Ian White assessed the situation. The idea of taking a portable pump onto the vessel was not really an option because both time and permissions were needed for that. It was not the ability to get a pump onto the vessel that was the real issue, however, it was getting a container to pump into and associated permission standing the environmental risk. There was no pump and associated equipment available in the timescale. Mr White had a tug alongside and once the Golden Cross seemed stable enough he went there to discuss a plan and to wait for a second tug should it be needed for beaching. The first tug (“Jupiter”) had arrived at 12.15 and then the second (“Reliable”) at 13.00. These were specialist nuclear support tugs with which Ian White was familiar. They did not carry portable pumps and Michael O’Toole had confirmed that there was none available that could be used. When asked what he would have done had he known that there was a pump that could pump out 1,000 litres a minute on the vessel, Ian White agreed he would have considered whether that could be used although that would not have resolved the issue of into what the oil and water could be

pumped. The context was that he did not know whether a catastrophic incident was about to happen and his priority was to salvage the situation as best he could. The first tug, Jupiter, was lashed to the Golden Cross at 12.25. Although normally the vessel would always be beached at high water, in this particular case time was against them and so that was not possible. The team involved were already taking the risk that a catastrophic incident could happen. That was fully discussed and it was agreed that the line lashing the Golden Cross to the tug would be chopped to disconnect the two vessels if that occurred. There had also been a discussion about where exactly to beach the vessel. A beaching point to the north was discounted. There was a risk that the vessel would be lost in Loch Goil during the move. Swine Hole was the nearest reasonable place. Although it was a shingle beach and so not ideal, there were at least no rocks. The decision on that was taken at around 12.25 on 4 May. By that time there was a lot of surface water and the vessel simply had to be got to ground. Ian White agreed that it might well be that a police officer had been told a bit earlier than that, at 11am to stand by for the beaching of a vessel but the final decision was not taken until 12.25. By about 11.20am the decision had been taken to beach the vessel on the south side, it was just the particular location of Swine Hole that was confirmed later. Mr White accepted without question that low tide was the worst time for beaching the vessel but he simply could not afford to lose 12 hours to wait for high tide.

[35] Ian White was clear that in looking around the vessel prior to beaching, he would have shut any open doors that he had seen. Thirty years of naval service had taught him the importance of that. He was sure that he had shut any open doors to avoid water getting in. Oil spillage was his main concern at the time. He did not consider there was any risk of the Golden Cross floating away again after beaching because she was already full of water. There were vent holes with no covers on the open deck and so water was always going to

get in. They tied her onto a beach and put anchors in. On being shown photograph 35 from the bundle 7/5 of process together with photograph G of 6/17 of process, Ian White agreed that there was a blue door on the starboard side that appeared to be open. He was clear that if he had seen a door in that open condition he would have shut it so that everything would be kept as dry as possible in case there was any possibility of saving the ship. So far as oil was concerned, he and his colleagues could see and smell the oil and so decided they would have to call a Tier 2 event and deal with it that way. It was put to him that something in the order of £440,000 could have been saved if he had just instructed that the vessel be pumped out. Mr White disagreed. He and Jamie McGarry, who was very experienced, both regarded it as impossible to secure the sort of equipment that would be needed for that over what was a bank holiday weekend. There was simply no question of willingly polluting the loch. The easier way to try to save the vessel was to put her on dry land. He did not know at the time what salvage insurance the pursuers had, he just tried to do the best he could. He did not have a pump, he did not have a container and although he was told that there was no oil other than in the header tank he had experience in oil spillage and knew how difficult it was to empty an old oil tank. There was enough oil present to justify him taking the action he did. Ultimately the clear-up operation had resulted in having to dispose of 50 litres of "mess". For that operation they had used physical double booms which were red in colour to stop further pollution. The booms gather the oil in the corners and then it is skimmed off and becomes special waste. Ian White disputed that the Golden Cross could have been saved if she had been beached at high tide. Very little scraping had been caused by the beaching. A survey was done and it was found that the hull thickness was poor all round. He reiterated that the priority was to get the vessel out of the water and avoid pollution. As someone with a lifelong interest in boats, Ian White had rather liked the look

of the Golden Cross and had been very keen to do what he could to save her. He had discussed the various options with Stuart White. The stability book would not have helped the DQHM as Stuart White had emailed him a diagram to his personal phone. It was put to him that this was untrue, but he said he had brought it to court.

[36] Under cross-examination, Ian White was shown the email sent to him by the first pursuer at 4.36am on 4 May enclosing a diagram of the vessel's layout (7/23 which was lodged at the end of examination in chief). The first pursuer had also stated in that email that he was chasing down the original plans but it was difficult because of the bank holiday. Ian White had found the first pursuer's diagram very clear and useful. On the issue of how the MOD police had first noticed that the Golden Cross was down at the stern, Ian White confirmed that MOD police personnel patrol Loch Long and Loch Goil daily because their support is vital given the activity at the static launch range. They had been aware of the D16 buoy and knew the Golden Cross was on it and so were keeping a close eye. On the events of 4 May 2013, Ian White had arrived at the Golden Cross at about 9.30am. He knew that low tide that day was around 2pm. He knew that beaching in the middle of the day at low tide was not helpful but for the reasons already given he needed to beach the vessel as soon as possible. He had prepared a detailed narrative a couple of days after the incident of everything he had done. That was produced at 7/13 of process. He knew the importance of keeping records and had recorded everything that happened from the Friday onwards. He had recorded the low water mark at the time as being at 14.21 on 4 May. When he arrived at the Golden Cross he noted the distinctive smell of heavy oil which had been a surprise to him. The oil and water mix was up to the deck plates of the engine room that you would normally walk on. It was easily apparent that there was a fair amount of water in the bilges and that it was mixed with oil. He spoke to the various photographs in the bundle 7/5 of

process that also recorded what he had observed. What had changed between the first and second inspection was not internal to the vessel but was more the water on the deck. It was clear that the vessel had sunk more since he had been there. There also seemed to be more oil visible. His first impression had been that the Golden Cross did not look at all seaworthy. He had been on many tugs and different types of craft and he considered that this vessel should not have been in the water in 2013. There had been four personnel involved in making the decision to beach the vessel and everyone was in complete agreement that there was no other course. The Golden Cross was sinking fast and because of the risk of pollution, the best chance of saving her was to get her to the beach. There simply was not time to do anything else. Photographs had been taken of the beaching process. Ian White spoke to these. They illustrated that after the vessel found her position she started to lean over to the starboard side and settled. The beach was fairly flat. The stern had fallen below the water which was probably a consequence of the vessel falling over to the starboard side and then water coming up behind her.

[37] So far as the pollution clean-up was concerned, Ian White and the QHM were both trained to the highest level for oil spill response. Mr White had undertaken training the previous year which was very detailed. He and the QHM had experience in the basic management of oil spills. A Tier 1 spill could be a leak from equipment. For a Tier 2 spill the protocol was to call on a first responder who had the equipment to deal with it. A Tier 3 spill would require a national response. The personnel from SERCO who had accompanied Ian White on the day in question were also trained in Tier 2 oils spills. Calling a Tier 2 was not a difficult decision to make and turned out to be the correct one. There was in fact a lot of oil that had to be cleared up later. Had he been in any doubt he would have called a Tier 2 because it was easier to step back to Tier 1 than vice versa but he reiterated that as it

transpired the call had been the correct one. Although he had been given information that everything other than one small tank had been emptied, he could not rely on that information because the smell of the oil was such that he had to assume a worst case scenario. An oil spill on buoy D16 would have been extremely difficult to contain whereas an equivalent spill on a beaching point could be dealt with. Any notion of wanting to beach the vessel at high tide simply disappeared because of the urgency in removing the vessel from the buoy to the beach.

[38] Ian White recalled that after the vessel was beached and the booms put round to contain the spill together with various absorbent pads for the clean-up, the first pursuer had been asking to get on board the vessel. That was on 5 May. He was shown the photographs to illustrate to him that it was not safe to do so. The clean-up went on for a number of weeks. The general view remained that the leak was probably from the propeller shaft where it joined the stern gland.

[39] Ian White was able to answer some questions about the importance of buoy D16 to the MOD. The area around Faslane is under constant patrol. The SNR was used to avoid anyone hearing what was going on in the range. The buoy was in a narrow channel and used to tie submarines before they were submerged to do their work. A nuclear safety tug is always moored there when work is going on. The buoy was fundamental to the defence work being carried out. Had the Golden Cross sunk at buoy D16, there was a real chance that it would have blocked the narrow channel. That was one of the many reasons behind the decision to remove the vessel to the beach. The worst case scenario of not being able to get submarines in and out had to be avoided. The importance was such that had the Golden Cross blocked the narrow channel it would have prevented the nation's nuclear deterrent submarines from operating their patrols.

[40] Under re-examination, counsel for the pursuer acknowledged to Ian White that it had been wrong to suggest that the first pursuer had not sent the email 7/23 to him, something that was now accepted had occurred. In relation to the consequences had the Golden Cross been pumped out at the buoy, Ian White agreed that SEPA would have questioned such a course of action. The naval base has had a warning before from SEPA because it is a marine protected area. His role as DQHM was to take all such issues into consideration in making decisions. He agreed that there were exceptions for emergencies and that if there was an imminent danger to property, sometimes actions contrary to environmental protection had to be taken. A balance had to be struck. There had been three main types of oil on the tug namely diesel, hydraulic oil and lubrication oil. The booms ultimately used were very effective to collect at least the diesel and lubrication oil. MOD tugs do not carry booms that would be appropriate for that task. The equipment on board the Jupiter was Tier 1 equipment, a light small boom which would have broken down after an hour.

[41] Captain Ken Heiser gave evidence in the pursuers' case. Captain Stirling, the defender's expert, was present in court throughout that evidence. Mr Heiser explained that he is known as captain because everyone who has a vessel can take that title and he was captain of a vessel for 39 years. He is a retired master mariner and on a voluntary basis acts as a first responder in the village of Comrie. He received instructions in this case through someone he knows in that capacity. He thought that the circumstances of the case were interesting. He had never previously prepared a report for court or acted as an expert in any way. When asked what he thought the duty of an expert was he said it was to have "a fair response to what I have seen from both sides". He explained that he felt considerable sympathy for the situation in which the first pursuer had found himself but that he had not

allowed that to influence his view. Captain Heiser had produced a report for this case number 6/7 of process. His curriculum vitae was appended thereto. He confirmed that many of the certificates listed against his qualifications have expired as he has been fully retired since 2013. His last main occupation had been with specialist marine services in Hull where he inspected anchor supply vessels for the offshore industry. He has some experience of marine surveying and knowledge of vessel stability issues. When asked what his involvement was with the salvage of the Costa Concordia in which Captain Stirling had been involved, Captain Heiser explained that he had gone out to assist with the relief and worked alongside those doing salvage but did not want to suggest that he had any significant role in it and he would not suggest that he was a salvage expert of any kind. His experience was that of being involved with many vessels including those the size of the Golden Cross. He had been involved in assisting with the towing of a similar type of tug in the past. He had never been involved in putting a pump on a vessel in distress but he had been present when others had done that.

[42] Having been present in court and listened throughout the evidence of the other witnesses Captain Heiser commented first that he had seen the final sign off for the towage of the Golden Cross, hence the reference at page 2 of his report. So far as the mooring of the Golden Cross was concerned he understood that the buoy had to be specified because the vessel was on MOD property and he had some understanding of the area in which the events leading to this litigation took place. He had watched the RNLI video several times. He agreed that when the RNLI had first gone on to the Golden Cross, she was low in the water but pointed out that there was only a little water on the deck. By 4 May 2013 at 9.30am, it appeared that the water was not a great deal more than in the RNLI video. From that he considered that the speed of the water ingress was slow. Nonetheless, as the water

was visible inside the vessel, he agreed that the bilge must have been full of water and the first thing he would have done in those circumstances was to think about pumping the water out if there was a salvage pump close to the bilge. There was clearly a danger that she would sink if that was not done. He accepted that you could only pump if it was safe and there were no toxic fumes in the air. He thought it surprising that someone had gone down to the engine room at all in the circumstances.

[43] Captain Heiser was of the view that a reason to have the Jupiter tug alongside the Golden Cross would be to consider using a pump to empty out the water. He thought it would have taken about 30 minutes to do so if the pump was attached to a power supply. He was concerned that there was a danger in the Jupiter being alongside a vessel that was going to sink as she too could have been dragged down. However, he felt that if the MOD had managed to get the pursuers out to the vessel, they could have been shown where the equipment was kept on her. He confirmed that the socket that the first pursuer had described was a standard connection point to get power at sea. It was similar to that used for caravans and they used a watertight plastic insulation, usually a blue colour. He recalled that Ian White had said that these were available on the tugs. He did not disagree with the estimate of 30,000 litres of water having been in the engine room. He still felt that a pump should have been used. He was told by the pursuers that there had been one in situ. He had done some calculations but accepted that you would need a lot of power to discharge that amount of water. The discharge hose would have to be well secured to the deck but it could have been done. If it had been, then as soon as the water had been taken out of the engine room the level of the boat would rise even if there was still water in the bilge. The oil would float on top and a filter would stop debris getting in. Of course there would be a bit of debris in the bilge water but he thought there would be nothing to cause real concern and

because oil will float on top of water you would leave about 5,000 litres in the vessel and transfer that onto the empty tanks that were on board. Once most of the water was out, the vessel could be towed to any berth available. His view that the Golden Cross could have been saved was on the basis that he understood the Jupiter had a salvage pump on board.

[44] The witness understood that the intake of water onto the vessel was slow and that was consistent with the stern gland being the cause. He confirmed that even if no suitable pump was known to be on board the vessel a portable pump could have been used. He was referred to an operations handbook for a DBR diesel driven pump unit (number 6/103 of process) which had been recovered by the pursuers' side in seeking documents illustrating what pump might have been on the Jupiter. Captain Heiser confirmed that this was a normal salvage pump for a recovery vessel. He calculated that it could pump out about 583 litres per minute and so was not as effective as an electric pump. However, using it would have resulted in a more positive stability situation for the vessel. It would also have been possible to lead a hose from the pump to the bilge by lowering the pipe down below the engine room so that the pump was on the deck, the suction pipe went down to the engine room and the water could be pumped and flow off the vessel. He did not see why it would not have been possible to deploy such a pump at 12.25 on 4 May. Accordingly what should have been considered is first the use of a bilge pump which failing the use of a portable pump.

[45] So far as the pollution issue was concerned, the first pursuer had confirmed that there were 500 litres of diesel and 60 litres of oil lubrication on the vessel. However, with caps on, it would only be if the vessel sank that all the fuel would seep out. Obviously if a tank was corroded or sprung a leak there might be a more sudden release. He accepted that there was what he referred to as a "slight amount" of oil from the Golden Cross but all ships

would leak something. He could not say how much oil there had been. Captain Heiser had read statements made by the tug skippers. One was from Ross Turnbull the master of the Jupiter (7/21) who had described the Golden Cross as being in a terrible state with a rusting superstructure and corrosion on the main deck. Captain Heiser indicated that from what he had seen the vessel did need a coat of paint and there was a lot of rust as she had not been touched on the outside for quite some time. However, she was a well-built strong vessel.

[46] Returning to the pump issue, Captain Heiser reiterated that relying on his own experience, he thought that those involved in this case could have got a pump onto the boat on 3 May when the weather conditions were fair enough. He disagreed with the view of Ian Collins from SALMO who had reported that the vessel was too unstable to move and too dangerous to get a pump onto it on that date. Stuart White would have known where all the items of equipment were including salvage pumps and could have assisted with that. The location and timing of the beaching was also a concern. Captain Heiser did not consider that it was an emergency situation on 3 May and so he would have expected, if beaching was to be done, to do it then. On 3 May there was the luxury of time because although the Golden Cross was in difficulty, steps could have been taken to beach her at high tide. On being shown the various photographs in number 7/5 of process, Captain Heiser expressed the view that the vessel should have been beached further up onto more sand in addition to the problem of being beached at low water. The witness was firmly of the view that if the water had been pumped out of the Golden Cross she would "still be with us today".

[47] Under cross-examination Captain Heiser confirmed that he had never had to make a decision himself on beaching a vessel and had never been involved in the exercise of beaching a vessel. He had no practical experience of the type of operation that had been carried out under the instructions of the DQHM in this case. He agreed that the heart of the

difference between him and those involved in the case and the defender's expert was that he thought that the water could have been pumped into the loch. He confirmed that he had worked with the RNLI in Orkney and Shetland and while their main object is to save life, they do try to help to save a vessel and it appeared that they had initially had no objection to pumping out. He thought it would be permissible to pump bilge water out into Loch Goil provided that the crew knew what they were doing. He thought it would be lawful to avert a situation where otherwise the vessel would founder on D16. Captain Heiser accepted that there was a chain of command if someone wanted permission to discharge water from an engine room into a loch but he felt that if the vessel was in danger of sinking such a measure could be taken to avert it. He thought also that the DQHM could have avoided what ultimately occurred by calling a Tier 1 pollution and tackling the matter with a Tier 1 response kit.

[48] Captain Heiser confirmed that he was aware that there were salmon farms in the area where the Golden Cross would have sunk and that it was a place of natural beauty and a conservation area. He was aware that there were some restrictions on pumping bilge water out of vessels and that it had to be put in a slop tank and then take it ashore. However he thought that in the circumstances it still would have been acceptable to pump the water filling up the engine room over the side of the vessel as long as it was taken down to 5,000 litres when the amount of oil on top of the water that you pumped out would not be a great deal. When the GSS estimate from Jamie McGarry (number 6/127 of process) in relation to the third May visit when Mr McGarry described the vessel as "... extremely contaminated with oils and grease ... you are looking at a pretty major spill", was put to him, Captain Heiser said that he would disagree entirely. He reiterated that because oil floats to the top of salt water, if you put a pump below the oil you increase the stability and are not

really taking oil out. His view was that oil and water separate and so the water below the oil is not really contaminated because the oil would primarily float to the top. For that reason there would not be much contamination into the sea. The subsequent contamination was a result of the doors having been left open when the vessel was aground. When asked what evidence he had of doors being left open, Captain Heiser referred to the photograph where the engine room door on the starboard side was open. This was identified as 6/17G although Captain Heiser accepted that he did not know when exactly the photograph was taken.

[49] In relation to the manual relating to the pump that might have been on board the Jupiter (number 6/103 of process), Captain Heiser confirmed that he had taken the capacity as being 350m³/l. When asked if he would be surprised if that was out by a factor of 10 he accepted that was a lot but he still felt the pump was designed for salvage. He was referred to photographs and figures relating to the pump and it was suggested that the pump and generator combined could not shift 350,000 litres. The witness agreed with that but was not clear whether the figure in question was just showing the mechanism rather than the capacity. When it was suggested that a crane would be required to manoeuvre a pump that would be able to pump out 350 litres per hour Captain Heiser disagreed and said that he thought that it could be manoeuvred on deck. On the issue of the change from a stable to a dynamic situation Captain Heiser felt there was not much change between 3 and 4 May. He accepted that the sea state was slightly choppier on the Friday and that would affect the amount of water coming into the vessel. He did not consider that the conditions on 4 May were anything to worry about. The water was choppy but the difference was not significant. The water ingress appeared to be gradual and was probably through the stern gland. He was not sure that there would be any wear and tear through the propeller shaft turning as it

would have been secured and blocked off when the vessel was mothballed. The propeller had been enclosed and protected by the keel and it was suggested that this meant it was unlikely that it would be damaged by being beached and then towed. Captain Heiser thought, however, that the vessel could have hit a rock where she was beached. He accepted that other possibilities included a stress fracture as a result of impact or repeated movement. He thought it unlikely that a broken cooling pipe was another possibility as he could not see any broken hydraulic pipes in the engine room although he accepted that pipes can fail with old age. He also thought it unlikely that a weld had cracked somewhere as that would have been noticed when the vessel was taken off the beach at Ardentinny when he understood she had been inspected. He thought it was difficult to say whether broken pipes could occur at any point through old age or break with no impact. He agreed to some extent that the hull could become perforated due to pitting and corrosion, but he reiterated that vessels like the Golden Cross were extremely strong in common with most others built on the Clyde.

[50] On the events of the days in question, it was put to Captain Heiser that if the DQHM saw a significant change in the couple of hours between 9.30am and 12 noon on the Saturday, that would inform him as decision-maker about what had to be done.

Captain Heiser said that if the water was increasing the way that Ian White had said, then there might well have been a need to put the vessel on the shore. He thought that there was some dubiety in whether there really was a dramatic increase in the water level in the engine room as the masters of the Reliable and Jupiter had given statements talking about this without having been present on the vessel. Ultimately, however, Captain Heiser was prepared to accept that if the DQHM's evidence was accepted in relation to the dramatic increase in water ingress then it might have been better to put the Golden Cross ashore than

let her sink on D16. His point was that on 3 May there had not been the same urgency and so that was when something else could have been done. If they thought the vessel was going to sink overnight then they should have moved her on the Friday. If the water was coming into the vessel as fast as the DQHM had said then of course it was sinking but that was after the time when they should have started pumping. Captain Heiser in his report (at page 7) had prepared some calculations in relation to the estimated number of litres that would have had to have been pumped out. He had been constrained by not having the figure for the depth of the water. When it was put to him that another way of calculating the amount of water on a vessel was to look at its draught, he confirmed that this was the case but he would need the stability book for that and those involved did not have it on the day.

[51] Captain Stirling's report (number 7/9 of process) was shown to the witness who confirmed he had read it. He agreed with many of the passages in relation to the general comments and observations made, on hydrostatics, the stability factors and the pollution risk other than that he understood that the fuel tanks had all been cleaned. He agreed also with the section on beaching principles. He disagreed with Captain Stirling's section 3.6 in relation to pumping. He thought that the MOD have plans for oil pollution such that they carry a kit that absorbs oil. Even if not on the tugs, the MOD would have had this in place somewhere on the shore. When it was put to him that Ian White said that they did not have such equipment available, Captain Heiser retorted that they should have done. He agreed with certain statements in the health and safety section of Captain Stirling's report, particularly that asphyxiation in a confined space is the biggest cause of fatalities in seafarers. He agreed that it was necessary to have the right kit and take precautions whenever entering an enclosed space but pointed out that the DQHM had seemed to think

that it was alright to go down into the engine room. He agreed that precautions had to be taken where there were fumes from leaked oil.

[52] On section 4 of Captain Stirling's report which concerned a review of the actions taken in relation to the Golden Cross, Captain Heiser agreed with some of the points made. The areas of disagreement were in relation to whether a suitable salvage pump was on board the Jupiter and how the pollution risk could be dealt with. On alternative beaching locations Captain Heiser accepted that Swine Hole was an appropriate place to have chosen if the vessel was sinking by that time and had to be beached. He reiterated that he thought a small amount of water could have been taken out of the Golden Cross who could then have been towed to a safer area. Under reference to Captain Stirling's interpretation of the photographs in 7/5 of process, particularly numbers 15, 16 and 17, Captain Heiser did not agree that these were entirely consistent with the view that those beaching the Golden Cross only just made it before she sank. He thought that the vessel had tipped because of the way in which the beaching took place.

[53] In re-examination Captain Heiser confirmed that he had not been shown any detailed calculations based on the information in the stability book. If Captain Stirling had done these, they were not contained in his report. On the issue of the doors being left open, Captain Heiser acknowledged that even with doors that were shut oil could seep through the venting where the oil tanks were situated. On the availability of a pump he reiterated that he thought that the pump handbook number 6/103 was one for a salvage pump that would be capable of dealing with the Golden Cross' situation. He would have expected these to be carried by the tugs Jupiter and Reliable.

Evidence in the defender's case

[54] Two witnesses were led on behalf of the defender namely Ian Collins and Captain Stirling. Ian Collins is a salvage officer with the MOD. This is a civilian post. He is now based at headquarters in Bristol. After posts with the Merchant Navy and with private marine operations companies, he commenced work for the MOD in 1998 and has been involved in salvage work from that time. From then until 2009 he was manager and ultimately officer in charge of the northern unit. His role was day to day management of MOD assets and salvage work as and when required. He has been involved in a number of salvage operations both in this country and overseas. His unit was not a first responder and so was not normally called to vessels in distress. However, in May 2013 Ian Collins was still in Scotland although he had handed over the Greenock unit to work in Bristol. He had remained resident here while his daughter completed school and was commuting to Bristol.

[55] On 3 May 2013 on the Friday of the bank holiday weekend, Ian Collins was contacted by headquarters and thereafter he got in touch with QHM Lightfoot. He was told that there was a tug reported to be sinking on a buoy. As this was a third party vessel, advice had been passed that beaching was the likely resolution. He drove to Clyde and met the QHM and DQHM for a briefing. He volunteered to have a look at the vessel. The information he received was that she was in a poor condition and closed up. He arrived at buoy D16 at 1515 on 3 May. The weather was building with some rough sea on the outer reaches of Loch Long. When he got to the Golden Cross he noticed that she was considerably down at the stern. A portion of the afterdeck was awash and there was debris on it. Ian Collins did not go on board as he could see that the vessel was not in a particularly safe condition. The water washing over the back deck indicated to him that there was a lack of buoyancy in the hull. The mechanism, rate and cause of the flood were all unknown. Mr Collins explained

that the waterplane (a cross section of the boat at the waterline) diminishes if the deck is awash; the submerged section loses its waterplane and consequently its stability. This feeds into a calculation that gives you the loss of stability. The free surface area is the movement of free water within the hull. When the vessel tilts there is a reduction in the available stability. That is why vessels are split into compartments as the greater the number of compartments there are the less opportunity water has to spread. Although Mr Collins had no plans of the Golden Cross available, using his experience he knew that the engine room in a small vessel like that would extend across the entire width of the tug. His advice on the day was that, with the equipment deployed, there was not much that could be done. He had only the police launch available. Only a multi CAT which is a small workboat with a small cabin engine was going to be available to them and it arrived after 5pm on 3 May after he had gone.

[56] In Mr Collins' view pumping the water out was not an option for a number of reasons. So far as beaching was concerned, he was not sure of the efficacy of that. He had one small vessel and he was not familiar with navigable passages to the beach. There was a concern because of the noise ranges at Loch Goil with its strategic import. His primary concern was the safety of life. It would have been reckless to enter an enclosed space such as the engine room through a galley in which there was an unknown atmosphere and no apparatus. Without the plans and knowledge and detailed knowledge of the condition of the boat, it was not a viable proposition to put someone inside the vessel. Returning to the issue of pumping the water out, Ian Collins did not know the cause of the influx of water or its rate and pumping is not a finite operation. It would have been inappropriate to start pumping unless you knew that you could see it through until the situation was remedied. He had kept in contact with the MOD salvage officers to discuss possible courses of action.

His clear advice on the day had been that without available equipment there was nothing that could be done. He thought that if the vessel survived the night a proper attempt should be made to beach it. He gave that advice to the DQHM, Ian White. When asked whether Ian White had been happy with that advice Ian Collins confirmed that he had not been. Mr Collins acknowledged that Ian White had been in a difficult position but his own view was that the situation was unsafe and the primary concern was for the safety of life. That had to be more important than saving property. In any event, he knew subsequently that Ian White had gone on board the next day and seen oil contrary to what Ian Collins had been told about tanks having been drained. Further, Ian Collins was concerned that any deliberate discharge over the side of the vessel into the loch would fall foul of environmental regulations and he had a concern about personal responsibility for that. However, the real issue on the Friday (3 May) was that there was an unknown space on the vessel (the engine room) with compromised stability. The issue of oil pollution appeared to have taken on greater significance on 4 May but on the previous day Ian Collins was not in doubt that there was nothing he could do.

[57] Under cross-examination Ian Collins agreed that he had made a dynamic risk assessment at the time but his conclusion was that the situation was dangerous, not that it could be dangerous. He spoke to all parties on 3 May including James Ward at the headquarters in Bristol and by telephone with the DQHM. He confirmed that the DQHM's time line number 6/13 of process was accurate when it recorded "Ian Collins reported vessel too unstable to move and too dangerous to get pump onto". Mr Collins confirmed that he had considerable experience in using pumps and about pumping although he was not an engineer. He was asked about the technical data of the pump depicted in 6/103 of process.

He thought a pump of that sort would potentially be capable of pumping 500 litres per minute but it would depend on the rise and other variables.

[58] In re-examination Ian Collins confirmed that the engine on the pump in 6/103 of process was in fact a 0.23 litre engine and so less powerful than he had thought.

[59] Captain David Charles Stirling is aged 59 and has been involved in salvage work since he was about 21 years old when he joined a salvage tug in 1979. He had remained in salvage and towing work ever since then. His curriculum vitae was attached to his report number 7/9 of process. In 1993/4 he had obtained an Extra Masters Certificate from Glasgow Nautical College which took him above the level of a ship's captain. That qualification had included marine environmental studies. Captain Stirling's CV included pages listing the various salvage operations he has been involved in. Latterly he had formed his own salvage company so that he could spend time at home and then pick and choose his involvement in operations. He had been involved in 2017 when a Navy ship sank in the Persian Gulf with several tons of missiles on it. He had also worked on re-floating an oil rig aground on the west coast of Lewis. He was part of a joint venture when the Costa Concordia sank which involved a total of 830 days' work. He did that partly as a consultant in the operation of rolling the vessel upright then in the re-floating operation and subsequently he took charge of the salvage operation together with a colleague. This involved a planning and risk assessment role working as a salvage master and interfacing with the relevant authorities. He has for some years been engaged as an expert providing salvage advice to the Secretary of State's Representative and whenever there is a major salvage situation with Government involvement he provides advice and guidance. Three years ago he acted in that capacity when a car carrier sank in Southampton. He has practical hands on experience of salvage

and the relevant equipment used built up over a period of almost 40 years. He has considerable experience with the issues involved where there is a risk of a pollutant getting into water in a salvage situation. Captain Stirling adopted his report number 7/9 of process.

[60] When asked in what circumstances a vessel would be beached, Captain Stirling referred to the section of his report on beaching principles (section 3.5). The primary reason to do that is where one has no control of the situation. If a vessel is sinking or on fire then beaching allows the team to reorganise and take stock. He had experience of beaching vessels and although it was not a particularly common experience, he had done so in Indonesia where there were not sufficient pumps available and a container had to be beached. The usual plan would be to re-float the vessel but there is often a beaching plan as a backup. The best location for beaching is any soft or firm but non-rocky surface that will not pierce the hull and spread the weight. The propeller rudder is the most vulnerable point of a vessel and so it has to be beached bow first. The closest suitable position has to be worked out as if there was the luxury of time then beaching would not be required. It was always better to beach at high tide although where the operation was a necessity rather than a choice that was not always possible. Each situation had to be assessed on its own merits.

[61] Captain Stirling spoke to the points made in section 3.3 of his report on stability. He explained that stability is defined as the ability of a floating object to resist internal or external forces and to return to its original position once those forces are removed. A ship is more stable with a low centre of gravity (CoG) than when it has a high CoG. Free surface effect (FSE) is the phenomenon which results from the ability of unconstrained water to flow from one side to another in a moving vessel similar to the sloshing effect experienced when carrying a baking tray filled with water. The effect varies directly with the cube of the width of the space in which the water is contained. So far as the cause of the water ingress in the

Golden Cross is concerned, he thought that stern gland leakage was not in fact the most likely cause having heard the evidence. A vessel that has not been used should not need any tightening of the stern gland and there was an aperture within which the gland would sit underneath the propeller which would itself be clear of the bottom surface even if the ship hit the ground. He had noted that there were gooseneck vents on the Golden Cross and the flood could have been caused by an open flap. There had been a wooden plug in one of the vents but several others were open. In any event, a number of things might happen in the process of the vessel sinking that could not be pointed to as the cause of the leak.

[62] Section 3.2 of Captain Stirling's report dealt with hydrostatics. In accordance with Archimedes Principle a floating vessel must displace its own weight of water from the space in which it floats. In order to float, a vessel must have sufficient buoyancy and this is provided by the volume of air contained in enclosed spaces below the waterline. The volumes of the enclosed spaces above the waterline do not provide buoyancy until they become submerged and are therefore referred to as reserve buoyancy. The volume of the buoyancy must be greater than the volume of water displaced in order for a vessel to float. A vessel's ability to resist the effects of added weight or flooding is measured by waterplane area, which is the horizontal area formed by the hull at the waterline at which it floats. The greater that area the greater the weight required to sink the vessel by a predetermined amount referred to as TPC or tons per centimetre immersion. The layout of the Golden Cross was that the accommodation including the engine room was at the front and there was no reserve buoyancy at the back. As the vessel had started to list there was no reserve buoyancy on the afterdeck and so it was losing stability and buoyancy. In Captain Stirling's view by the morning of 3 May the tug was approaching a critical point where there was little or no reserve buoyancy at the stern and insufficient residual buoyancy to support the

increasing displacement. At a certain point, the tug would react like a seesaw and the stern would sink. It would not have been possible to predict exactly when the tipping point would be reached without carrying out an extensive survey and detailed calculations, but an experienced salver would have been very conscious that this point was imminent.

Captain Stirling thought that Ian Collins had described the situation quite well. If a tank is less than 10% full the free surface effect (FSE) of any fluid contained within it is negligible.

Similarly, if it is more than 90% full the FSE is similarly negligible. For that reason the vessel had to be nearly empty or nearly full of water before pumping out would be of assistance.

Pumping out fluid to 40% full would not help at all.

[63] There had been three vessels of the same class of the Golden Cross built in total and they would be nearly identical in terms of stability calculations. The free surface effect in relation to the water in the engine room would have been a signal to those present at the time that the water was running inside the full length of the tug. This meant that the waterplane area was reduced and the tug would sink at a greater rate than the rate of ingress prior to the deck becoming awash. On the issue of pollution risk, it was important to understand that it is a major operation to clean all the oil from a ship. On the estimated oil in the Golden Cross being at 1,500 litres, any water pumped out would never have been clean. It would have been black and foul smelling. Oil is not insoluble and the water below it when pumping out was unlikely to be clean. There are always droplets of oil in water in these circumstances. It was too simplistic to say that oil floated on top of water as it was much more complex than that. If pumping out in a situation such as that which occurred here, there would be no alternative but to pump out into a boom or a box that trapped the contaminates. Briggs Marine would have had to provide a separator and then drain the

water from the bottom. Captain Stirling was adamant that it was simply never appropriate to dump contaminated water into a sea or loch.

[64] When asked whether the water could have been pumped from the engine room into tanks on the vessel, Captain Stirling said that would have made the situation worse as tanks at the higher centre of gravity would have made the vessel less stable and in any event would not have solved the problem in the engine room. All that would have happened was that the free surface effect of the water in the ship would have increased.

[65] Turning to the timeline, Captain Stirling had examined the detailed chronology prepared by the DQHM in relation to both 3 and 4 May. He considered that by the time Gareloch Support Services attended at 19.30 on 3 May, it was clear that the Golden Cross had taken on water more than gradually otherwise it would have been noticed on previous days. The situation on 3 and 4 May was clearly a dynamic one. There was no explanation of why things were changing with the vessel's situation but changes were taking place and they were all detrimental. To notice a change over an hour or two meant that this was not a slow and steady leak but that the vessel was taking on water at an increasing rate.

Captain Stirling had seen the report of the tug masters who said there was a noticeable change in the amount of water on the afterdeck. The TPC of the vessel was 4 and so 4 tons of water needed to be taken in to sink the vessel by one inch. Accordingly, she must have sunk by two, three or four inches over a pretty short period of time. A ton of water is 1,000 litres of fresh water and slightly less for salt water. Using the figures in the stability booklet (6/14 of process) he had been able to calculate that 4 was the mean TPI for this vessel.

[66] Turning to the photographs number 7/5 of process Captain Stirling indicated that these assisted him in assessing as a ballpark figure that there was probably about

120,000 litres of water in the vessel although with salt water it would be 2½% less than that. On an assumption that it was sea water mixed with oil this amount was a lot more than the Golden Cross was designed to have on board. Under reference to page 3 of the stability booklet, Captain Stirling explained the various symbols used there depicting the dead weight scale and how that could also be used to arrive at the figure of 120 tons of water on board. The tug alone weighed 210 tons and so a weight of 330 tons meant that the difference was what was on board. Captain Stirling was using imperial tons but these could be converted to metric the calculations for which were at page 2 of the stability booklet.

[67] The witness was taken through a number of photographs to describe what he saw in terms of the rate at which the vessel was sinking. In particular, he was shown photographs from the beginning of towing the Golden Cross with the tug alongside and her ultimate beaching. He disagreed with Captain Heiser's view that the difference between photograph 16 and 17 was that the water had rushed forward and back and flooded the stern. Captain Stirling considered that you could see from the photographs taken together that the vessel was moved gradually and slowly to the beach. This was confirmed by the statement from the tug master. There was no rushing of water and any water that was in the engine room would run forward, if at all, after grounding. It was clear that the vessel had not suddenly hit the beach and he could be clear about that having been on many vessels in similar circumstances. The momentum of the water will cause the vessel to go forwards and not towards the stern. In summary, Captain Stirling considered that the DQHM and others involved were lucky to have managed to move this vessel when they did. Had they waited even 10 to 15 minutes longer the vessel would have sunk in the middle of the channel.

Although the lines that were tied between the Golden Cross and the towing tug could easily have broken with the strain, the mechanism of taking the Golden Cross "on the hip" of the

tug meant that some stability was provided as she went towards the beach. He considered that the way that the beaching had been carried was all that those involved could have done with the tugs they had.

[68] On the issue of the type of pumps that might have been used if a decision had been taken to pump out the water, Captain Stirling confirmed that the pump shown in number 6/103 of process was a standard salvage pump. It was diesel driven and could generally be moved by hand. The one on the Reliance would have weighed about 70kgs with the weight of the engine being about 33kgs. It would have to have been taken to the deck of the Reliance and then moved across to the Golden Cross. That was a particularly difficult thing to do and was a four-man job unless you had a crane. Although arguably not impossible it would have taken four people to do it. In addition there would have to be a pipe as the pump would have to be run from the deck with the hose running from there to the engine room to get it below the surface of the water. A lengthy hose would have been required as this involved several metres. In addition the correct type of rubber seal would have to be available. The pump depicted at 6/103 had two heads. The first task would be to get it down in order to create the flow. You would have to get the suction head as low as possible to be able to pump. If this type of pump had been used it would not have been able to pump to a 100% rate of capacity. A rate of 1,000 litres per minute was full speed without the sort of height or depth issues that would have been prevalent here. In any event, when the hose was lowered to the engine room, some of the oil sitting on top of the water would go into the suction hose and would be there when you started pumping. The water would then be contaminated and so a filter system or holding tank would be required. There would also have been issues potentially with the hose curving back up to the oil. There would have been a considerable amount of debris in the bilges such as rag or plastic that

would stop the pump or reduce it until it was barely pumping at all. Although the DQHM had gone down to the engine room, Captain Stirling would have expected tests to be done or the room ventilated for 24 hours before pumping. In conclusion, Captain Stirling was firmly of the opinion that Swine Hole was the only place that the Golden Cross could have been beached on the morning of 4 May. He was in no doubt that beaching was the right thing to do. Had the vessel sunk on the buoy the cost of recovery and clean-up would have been about £2 million. The decision taken to beach the vessel was prudent. Pumping out was not practicable for the reasons given. Nothing that Captain Stirling had heard in evidence led him to alter the conclusions he had reached which were stated at section 5 of his report. The photographs he had seen during the proof clarified further that time had been of the essence. Beaching was swift, safe and brought a large element of certainty. Had the decision been taken to wait and explore other options the outcome would have been much worse.

[69] Under cross-examination Captain Stirling agreed that the Jupiter was fitted with a small crane and that a pump could have been swung across from her to the Golden Cross using the crane. It would not have been a good idea to put a pump in the engine room of the Golden Cross for health and safety reasons. If pumping had been attempted the pump would have to have been left on the deck and the hose run down as he had already indicated. He disagreed that the motion of the vessel striking the shore with water inside had caused the Golden Cross to slosh which had then caused her to list once at the beach. There will have been an upward force at the keel and the vessel was very unstable and had fallen off balance. It would have been better to have a video of what had happened rather than the stills but all that could be seen from the photographs was that something happened. The less stability the vessel had the more likely it was that she could not be beached safely.

When asked whether he had worked with the MOD or SERCO, Captain Stirling confirmed that a few years ago a tug had collided with a rock in an area where the MOD had SNR off Rum towards Applecross. It had beached itself and was lying on SNR cables and so he had been called in to assist work that had to be done quickly under the authority of the MOD. That was the only occasion on which he had ever had a contract with the MOD. He had also been involved when a crane barge sank at Luss, Loch Lomond. The insurers had wanted someone experienced to look at it and although SEPA were involved because it was within Scottish inland waters he had been instructed by the insurance underwriters.

[70] The defender had also lodged three witness statements which were agreed as being what they bore to be. These were from John Philips, Ross Turnbull and Terry Halcrow all of SERCO Ltd. They comprised numbers 7/20, 7/21 and 7/22 of process. John Philips was the master of the SD Reliable and played an active role in the beaching of the Golden Cross on 4 May 2013. He indicates that the Golden Cross was in a very bad state of disrepair when he saw her and she looked as if she had not had any maintenance work carried out to her for years. His statement confirms the discussions with the DQHM and the decision to beach the vessel, a decision which Mr Philips fully supported. Ross Turnbull was working as a master for SERCO on 4 May 2013 and was also involved in the operation to beach the Golden Cross. He and his crew were on the Jupiter tug that day. His statement expresses the view that when the Jupiter came into close range with the Golden Cross on 4 May at about 12.15/12.25 the vessel was clearly taking on water and it was apparent to him that she was going to sink completely. Ross Turnbull agreed that Ian White had made the right decision to beach the Golden Cross particularly given how quickly she was taking on water. Terry Halcrow of SERCO had gone with his operation manager Michael O'Toole and Ian White to see the vessel on 4 May. He did not take part in the beaching but watched it take place. He was of

the view that the beaching was carried out correctly and successfully. The tugs proceeded with care and the whole procedure was carried out methodically and at minimum speed. He expressed the view that no damage was caused by the beaching of the Golden Cross.

[71] Parties also agreed as evidence, a report prepared by James Griffiths, operation manager of Marine Salvage Unit, Salvage and Marine Operations PT Ministry of Defence dated 17 May 2013 number 7/15 of process. Mr Griffiths had carried out a preliminary dive survey of the Golden Cross. He expressed the view at that time that the Golden Cross was in a good position and could readily be re-floated and lifted onto a barge for transport prior to disposal or docking. A clean-up would be required once the vessel was removed.

Discussion

Credibility and Reliability

[72] Dealing first with the witnesses led in the pursuers' case, I am satisfied that all of the witnesses were doing their best to tell the truth. However, there are issues in relation to the reliability of some of the witnesses. Stuart White was clearly distraught at the loss of the boat that had been a home to him and his late wife for many years. His attachment to the case is an emotional one and he has suffered the loss of his wife since the events under scrutiny in these proceedings. I have some concerns about his evidence. He expressed views on matters in which he had no particular experience far less expertise, such as in relation to whether it would have been reasonable and practicable to pump the oily water out of the engine room. Further, he appeared to be adamant that he had not emailed a diagram to Ian White in the early hours of 4 May and so had it put to Ian White through counsel that this was untrue, something that had to be retracted once Ian White produced the diagram sent to him. His account in evidence of there being fuel in the header tank was

contrary to what he had conveyed to Ian White, something to which I will return. Although my determination in this case does not centre particularly on issues of credibility and reliability, where the accounts given by Stuart White and Ian White, DQHM, differed, I preferred the evidence of Ian White. Similarly, Mr Symon, the co-owner of the Golden Cross and second pursuer, expressed views about how the Golden Cross could have been saved that appear to be based on a feeling that she could have been saved rather than any detailed knowledge of what was going on between 3 and 4 May when he had not been involved in direct contact with the DQHM at all. Again, in so far as his evidence contradicted that of Ian White, I preferred the evidence of Ian White. I have no concerns about the credibility and reliability of William Copeland, the marine surveyor who gave evidence about the valuation he carried out in 2011.

[73] Ian White, the DQHM was a particularly impressive witness. Although called in the pursuers' case he was really a defender's witness and had been a central player in the events of 3 and 4 May 2013. He gave his evidence in a calm clear and effective manner. It was apparent that he had used his considerable training and experience to keep a very careful record of everything that had occurred on the material dates. I was particularly struck by Ian White's evident passion for all boats and his clear disappointment that he had not been able to save the Golden Cross. One of his very first thoughts when he saw the vessel sinking on the buoy was to try to save her if he could. In his attempt to explore every possibility he had gone down to the engine room of the vessel despite previously stated concerns of Ian Collins that it was unsafe. I will return to that in addressing the central issue of the reasonableness of the actions taken. At this stage it is sufficient to record that Ian White's evidence was consistent with the contemporaneous records and with the statements of all of the other professionals involved at the time. One of those was Ian Collins, who gave

evidence and was cross-examined and who I found also to be a credible and reliable witness. Turning to those led as expert or skilled witnesses, I am content that Captain Heiser was telling the truth as he understood it and that he was genuine in the firm view that he had formed of the events in this case. However, as he acknowledged at the outset of his evidence, he has no experience in providing independent reports. He stated that he felt considerable sympathy for the position in which Stuart White found himself and although he thought that had not influenced his view, I did form the impression that he regarded his primary role as one of supporting the pursuers' cause. In any event, he did not suggest that he was a salvage expert of any kind and his most recent primary occupation had been the inspection of supply vessels for the off-shore industry. I intend no disrespect to Captain Heiser in concluding that he did not seem to me to have the requisite qualifications and experience to assist the court on the particular issues of the practicability and appropriateness involved in pumping out vessels into the loch and on the technicalities of beaching. In contrast, Captain Stirling is a salvage expert with vast experience. His curriculum vitae speaks for itself. I had no concerns about Captain Stirling's independence or fulfilment of his duties as an expert witness. That evidence has been of considerable assistance and I have relied on it.

Issues for determination

(i) How the Golden Cross came to be sinking at buoy D16

[74] There was undisputed evidence about the circumstances in which the Golden Cross came to be on the MOD buoy D16. It is in my view a relevant part of the background that she had been tied to a mooring at Ardentenny and not been repaired or maintained since late 2011. The first pursuer described her as "mothballed". The pursuers did not have the

resources to move her from buoy D16 when she was taken there in April 2013. It is significant also that it was understood both on the MOD side and by Stuart White that he had been given a period of about 10 days from about 16 April 2013 to move the vessel and had not done so. Accordingly, the situation was already unsatisfactory by the end of April. Against that background the first pursuer had not replied to the QHM's request for details of any insurance available.

[75] While there was some dispute about the condition of the Golden Cross, I consider that Mr Symon's description of the condition of the vessel's superstructure as "fine albeit needing a lick of paint" was overoptimistic. She had been without repair at least since 2011 and was indisputably an elderly vessel requiring considerable renovation for which Stuart White had been trying to secure funding. This leads to the issue of what caused water to come into the Golden Cross while she was on buoy D16. Counsel for the defender submitted that the cause was and is unknown and I accept that. Various theories were advanced in evidence and the pursuers' side seemed to favour the cause being through the stern gland. There was however no support for that from any independent survey and Captain Stirling gave examples of other equally likely possibilities. In essence, all that was known was that on 3 May the Golden Cross was seen and reported as being down at the stern. The rate at which water was coming into her was and is unknown as was the precise stability of the vessel at that time. In these circumstances I cannot find, as counsel for the pursuer urged me to do, that the Golden Cross was fundamentally sound but in need of a lick of paint. She had been neglected for some time and for an unknown reason or reasons began sinking.

(ii) *An analysis of the action taken by the DQHM*

[76] I have already explained that Ian White was an impressive witness who appears to have gone beyond what a cautious professional taking care for his own safety might have done. He considered carefully the reports of those who had already seen the vessel. He contacted Stuart White by telephone and formed a preliminary view that the Golden Cross could be beached at Swine Hole. Notwithstanding that preliminary view, he went to the Golden Cross to see if he could save the boat. He got on board the vessel and went down in the engine room. It was at that point that he and his safety man, Michael O'Toole from SERCO, could smell oil and realised that they had to be able to get off the vessel quickly as a catastrophic incident had to be contemplated. There are three main areas of controversy in relation to the DQHM's decision. The first is whether he gave sufficient reasons not to try to pump out from the vessel and whether it was reasonable and practicable to do so. Secondly, it is alleged that the time at which he beached the vessel and the site that he chose were imprudent. Thirdly, issues were raised about the beaching operations under his control. I will deal with each of these in turn.

[77] Ian White's reasons for not pumping out were first that there was no suitable pump and associated equipment available in the timescale and secondly, (and related to that) there was an environmental risk. He considered that securing equipment and associated permission was not reasonably practicable in the available timescale. Counsel for the pursuer submitted that Ian White's approach combined "an almost languid lack of urgency with, at the end, extreme hastiness." It was contended that he should have pursued pumping out on 3 May and having delayed doing he then hastily beached the vessel on 4 May at the wrong time of day. The pursuers' case as it evolved in evidence is that basic seamanship calls for pumping out as the first option. There was a considerable amount of

evidence about whether this would have been practicable. Stuart White gave evidence that the pump on the Golden Cross would have required a power supply from another vessel. However, it was not established in evidence that this could have been achieved and Ian White's evidence was that he did not see any pumps on the Golden Cross. He said that there were no pumps on the two tugs Jupiter and Reliable that could have pumped out the Golden Cross. Various witnesses were asked about an operator's handbook, number 6/103 of process relating to a pump. The handbook has the heading "Master ST Reliable IMO 95334092GT270" on the cover page. The evidence did not establish clearly whether the pump to which that handbook relates was in fact aboard the Reliable on the day in question. In any event, Captain Stirling, on being shown the handbook, said that it would have required four people to move a pump of that type manually. He explained that even if such a pump had been available and operational, there would still have been issues about whether the hoses and other equipment were sufficient for the task. The most significant issue in relation to pumping out so far as Ian White was concerned was the environmental risk and so the inappropriateness of pumping into the loch. I accept his evidence and Captain Stirling's evidence on this issue which were to the effect that without associated permission and the right equipment, it was simply not practicable, even if technically possible, to pump out in the situation that Ian White found himself in. There was a relationship between the lack of knowledge of (i) what was causing the leak and (ii) what the rate of ingress of water was and the decisions taken by Ian White. Even if suitable equipment had been available, pumping out a sinking vessel and trying to tow her away using one of the tugs available would have made no difference if she was taking on water so rapidly that she would still sink. All of these considerations had to be weighed in the

balance against the background of Ian White being aware that a catastrophic incident was a possibility.

[78] I consider that Captain Heiser's opinion that basic seamanship would have required pumping out the water on board the Golden Cross or at least some of it, into the loch was completely unrealistic. His view failed to consider the safety risks and practical difficulties of doing so. He accepted from the pursuers that there had been a suitable pump in situ, but this did not take into account that Ian White had not seen one. In any event, without a precise calculation of the rate of ingress of the water as against the capability of any pump that might have been available, Captain Heiser had insufficient information in my view to express such a categorical opinion on pumping out. I consider also that he swept aside the concern about pollution in a way that ignored the serious responsibilities that Ian White had and which he was duty bound to take into account. Captain Heiser viewed it as a simple matter that oil will float on top of water and so the water beneath that oil could have been pumped out. Captain Stirling explained that the situation was far more complex than that. The water below the oil would not be clean and without an appropriate separator or a boom that would trap the contaminants it would have been completely inappropriate to take that approach.

[79] Captain Stirling's view, which I accept, is that it was too difficult logistically to try to keep the vessel afloat standing the significant element of risk to personnel and MOD facilities without any guarantee of success. He described beaching as "swift, safe and brought a large amount of certainty". It was reasonable of Ian White to be concerned about the oil pollution risk and the significant difficulties that would arise if the Golden Cross sunk at buoy 16. Quite apart from increased clean-up costs, the DQHM explained the strategic position of the buoy and the narrow channel through which MOD vessels,

including submarines, had to pass. Against the background of the owners of the vessel having taken no steps to remove her from the buoy, it was Ian White's responsibility to decide what could be done. He did not make the decision lightly or without consulting others. Ian Collins had already seen the vessel on 3 May and had taken the view that pumping the water out was not an option. His view was that the situation was sufficiently dangerous that even then the vessel was too unstable to move (as noted by the DQHM 6/13 of process). Mr Collins' main concern was that there was an unknown space on the vessel with compromised stability and the safety of all those involved had to take priority. I have reached the view that there is no substance in the criticism of delay on the part of the DQHM. He could have accepted Ian Collins' advice and done nothing. Instead, while he formed a tentative plan to beach the vessel, he took a risk and boarded the vessel on 4 May to see if there was anything that could yet be done to save her. In all the circumstances, I conclude that the decision not to attempt pumping out the vessel while it remained at buoy D16 was a reasonable one.

[80] Captain Heiser specifically conceded in evidence that if the court accepted Ian White's position in evidence in relation to the reasonableness of his decision that the Golden Cross had to be beached then he would accept that. Accordingly, having found that it was a reasonable decision not to try to pump out a sinking vessel without any more information, available equipment and associated permission, the second matter I have to determine is whether the DQHM showed any lack of care in the decisions he made about how, where and when to beach the vessel. Having decided that nothing other than beaching was possible, Ian White identified Swine Hole as the nearest suitable place. At this point the Golden Cross was sinking and the pollution risk became much more imminent standing the clear presence of oil. I accept the evidence of Ian White that, if the vessel had to be beached,

Swine Hole was a reasonable enough location, standing the need to find one in close proximity to buoy D16.

[81] One of the pursuers' main criticisms was that the DQHM took the decision to beach at low tide. On the basis that Mr Collins had already formed a view on 3 May that the vessel was likely to have to be beached and had tendered that advice to the DQHM, there was simply no excuse, it was said, for not conducting that operation on 3 May when beaching could have taken place at high tide. There was no dispute that low tide was not the best time to beach the vessel. However, Ian White explained in evidence the specific chronology of events which illustrates that the decision making all took place within a short timeframe. He made clear that while on 3 May he thought it likely that he would require to act swiftly and beach the Golden Cross on the south shore of the loch, he still had to organise for tugs to be in attendance for that. While he had formed a tentative plan as to location at about 13.00 on 3 May, he had at that time no diagram of the vessel, of her layout, something which he received from the first pursuer at 4.36am on 4 May. He was absolutely clear in evidence that he had been unable to formulate a final plan until he got to the vessel to check her on 4 May. He had told the first pursuer the day before that his plan was to go onto the vessel himself before taking a decision. He informed the MOD police of his plan to beach the vessel on the south side of the loch. The logistics and particular location had been firmed up by 12.25 on 4 May. Standing the very serious safety concerns highlighted to the DQHM on 3 May by Ian Collins, it might have been foolhardy for Ian White to do anything more than he did on 3 May. If the vessel was unstable and too unsafe to get pumps onto, then the likely situation was that she would sink where she was or, if she survived until the next day, a concrete beaching plan could be made and implemented. I reject the contention

that Ian White had time to act before he did. The crisis had already occurred by 3 May and the rate of sinking was unknown.

[82] Importantly, Captain Stirling's view was that by the morning of 3 May, the tug had already been approaching a critical point where there was little or no reserve buoyancy at the stern and insufficient residual buoyancy to support the increasing displacement of water. Captain Stirling's expert opinion was that Ian Collins' assessment had been correct and that pumping out some of the water to say 40% full would not help at all even had it been practicable. The significance of that in relation to the discussion about timing is that the whole event was one of crisis from 3 May onwards. The situation on both 3 and 4 May was a dynamic one as explained by Captain Stirling. With the luxury of hindsight, certain calculations could be done about how much the vessel was sinking over what period of time. In the dynamic situation Ian White was faced with, however, there was no attractive option open to him. I have already found that pumping out in the loch was not reasonable or practicable. Allowing the vessel to sink on buoy D16 would have had considerable repercussions and was to be avoided if possible. Beaching was the only chance of saving the vessel.

[83] So far as the precise location and timing of the beaching is concerned, I accept the opinion of Captain Stirling that Swine Hole was the only place that the Golden Cross could reasonably have been beached during the day on 4 May. It was nearby and it was not reasonably practicable to wait until high tide. It was flat enough and there was no evidence about where else she could have been beached. There was some suggestion from Captain Heiser that Ardentenny would have been a better choice than Swine Hole as a location for beaching, but that seemed to be on the basis that she had been beached there before. The circumstances of that were, however, quite different. She had broken free from

her mooring, beached herself and then had been towed off by the QHM until a decision was taken. She was not at that time taking on water from an unknown cause and probably sinking. I am unable to make a finding that there was any practicable alternative to Swine Hole as there was no acceptable evidence to support that.

[84] Turning to the operation of beaching the Golden Cross, there is a suggestion in the pursuers' case that the vessel had been beached with the hatch open. Mr Symon said that when he saw the Golden Cross off the beach on 17 April 2013 the hatches were closed up including the blue hatch on the starboard side. Photograph 6/16G showed that hatch open after beaching. Ian White was asked about this in evidence and he was very clear that any doors on the Golden Cross that had been opened had been shut and that he had checked this before leaving the vessel. I accept Ian White's evidence and so draw no inference that any door or hatch was left open when the vessel was being prepared for beaching or at the time of beaching. I have already referred to the careful account of events that Ian White recorded contemporaneously. I formed the impression that he was someone who would take care to check such matters. As he put it, 30 years of naval service had taught him the importance of shutting anything that might let in more water.

[85] The method of beaching was explained fully in evidence. Ian White was in charge of the operation and he was assisted by John Philips and Ross Turnbull of SERCO. The operation was one that was done collaboratively and the circumstances are set out in my narration of the evidence. There was relatively little dispute about it. There was some suggestion that if there was a real safety risk then the Golden Cross should not have been tied to the tug SD Reliable but Ian White explained that everything was being closely monitored and the Golden Cross would simply have been cut loose if any risk to another vessel arose. Captain Stirling was taken very carefully through the photographs of the

beaching process. His independent view was that the operation had been handled with care. Unlike Captain Heiser, Captain Stirling had experience of beaching vessels, albeit this was not common. He expressed the view that the vessel was unlikely to have sunk because of water rushing forward and then back when she grounded. He gave reasons for that. He could see, albeit that still (but timed) photographs were not quite as helpful as a video would have been, that she had been making her way gently and slowly towards the beach with the assistance of the tug master who confirmed in his statement that movement was slow. Captain Stirling explained that the friction of water cushions a forward impact and that the momentum of the water itself causes it to go forward and not towards the stern. He could see from the photographs that the vessel was in the process of sinking and considered that those involved in the operation had been fortunate to be able to get her to the beach at all before she sank. I have no hesitation in accepting Captain Stirling's evidence in this regard. I conclude that there was nothing in the beaching operation that was in any way unreasonable or inappropriate. There was no support for Captain Heiser's view that the stern of the Golden Cross sank because water had rushed back into the stern. The most likely scenario is that the vessel had simply taken on so much water by the time she reached Swine Hole that she sank. I conclude that the whole beaching process was carried out with reasonable care.

(iii) The role of the pursuers

[86] I have already recorded the unchallenged evidence that the Golden Cross was not insured but that Stuart White had failed to answer questions in relation to that prior to the incident but while the vessel was on buoy D16. In my view, the significance of the pursuers having taken no action between 17 April and 3 May 2013 is that they had not seen her in the

water during that period. The pursuers had no direct role in any attempt to save the Golden Cross on the days in question. There was some dispute about whether Ian White had somehow forbidden Stuart White to go onto the vessel or whether he had just pointed out the very serious safety concerns on 3 May and indicated that it would not be safe to do so. While I accept Ian White's recollection, I do not consider that anything material turns on that particular dispute. As Ian Collins thought it was unwise for anyone, even safety professionals, to go on board the vessel, I consider it reasonable for Ian White to have done everything he could to dissuade Stuart White from taking any risks. On any view of the evidence, Stuart White did not press this matter any further and, following his phone call with Ian White on 3 May, his next step was to send the diagram of the vessel for the DQHM's assistance. That diagram (7/23 of process) identifies various parts of the vessel and states in terms that both the diesel fuel tanks in sealed compartment three and the diesel fuel tanks port and starboard contained within compartment four, the main engine room, were empty. This information was incorrect. It is important because it supports Ian White's view that he could not take at face value any suggestion that there was no fuel aboard the vessel. Although it was not until he was aboard the Golden Cross on 4 May and noted the distinctive smell of heavy oil that his concerns in that respect were confirmed, his prudent approach of gaining more information about the situation before making a final decision was clearly justified. In any event, Jamie McGarry of Gareloch Support Services had confirmed in an email at 9.26am on 4 May that his observation from having a quick look in the engine room from the outside was that the boat was extremely contaminated with oils and grease leading him to state "should she sink before we can empty her I think you are looking at a pretty major spill situation". It was not suggested to Stuart White in evidence that he had deliberately misled Ian White about all of the fuel tanks being empty and I

proceed on the basis that he simply erred in his recollection about that. However, the lack of involvement of the pursuers in looking after the Golden Cross or communicating effectively with the QHM and then the DQHM in the material period leading up to 3 May cannot be ignored in assessing whether the actions taken during the two days in question were reasonable or not. In the absence of insurance cover or other resources available to recover the Golden Cross there was little they could contribute to any decision making. In any event, Ian White kept in touch with Stuart White at the material time and Stuart White was not in a position to assist other than to provide the helpful diagram already referred to.

[87] There was also no evidence that the Golden Cross was examined on behalf of the pursuers after she was beached to investigate the cause of her sinking. It was not entirely clear on the evidence what would have happened had the Golden Cross been insured. I cannot rule out that she could have been recovered from the beach and restored although it may be that she was beyond repair by then. On 9 May 2013 Stuart White sent an email to David Lightfoot the QHM following a meeting between the two of them and Ian White within days of the vessel being beached. It was in that email (7/2 of process) that the first pursuer confirmed that there was no insurance for wreck recovery and that no recovery of the Golden Cross in her current position could be achieved by him and David Symon. In that email, Stuart White expressed a general hope that at some point in the future some part of the vessel could be salvaged. The last main paragraph of that email is illuminating. It states:

“I am fully aware that your priority (as mine has been) remains the safe removal of the vessel off that beach, damage limitation in respect to any pollution and safeguards with regard to navigation ... I am of course also happy that although this unfortunate scenario has resulted in the possible loss of the vessel – no injuries were sustained by anyone involved. ... This ending is one that I did not even contemplate.”

The terms of the email tend to support Stuart White's approval, shortly after the event, of the course taken by the DQHM, an understanding of some of the important factors he had required to consider in taking the decision to beach the vessel and recognition that safety of personnel was properly a priority. In my view this was a responsible acknowledgement against a background of the pursuers' own inability to resolve the situation.

Conclusions

[88] I conclude that the pursuers' financial constraints resulted in them being less proactive when their vessel was in distress at buoy D16 than they would have been had they been in a financial position whether through insurance or otherwise, to effect a recovery of the Golden Cross when she was beached. The lack of repairs or maintenance being carried out to the vessel at least from 2011 and her condition as observed by John Philips in his statement (number 7/20 of process) all contributed to the challenges facing the professionals who sought to salvage the situation on 3 and 4 May 2013.

[89] On the basis of the assessment of the evidence I have made, I conclude that the DQHM acted reasonably at all times on 3 and 4 May 2013. In making a tentative plan but not ruling out any other option until he had visited the vessel on 4 May and seen the extent of the contaminated water inside the engine room, he left a final decision to beach the vessel until he had assessed personally that nothing else was possible. The operation of beaching the vessel thereafter was reasonable in all the circumstances. Ian White required to balance a number of considerations. That included his duty to protect the UK's nuclear deterrent, to avoid contamination of the loch if possible, but also to take any reasonably available steps to save the vessel. He made the call that this was a Tier 2 oil spill, which turned out to be

accurate. He approached the management of the situation in a careful, reasonable and proportionate manner.

[90] The only other issue from the evidence relates to quantum and although, standing my overall decision in this case it is not necessary, I will make a finding about this. I have indicated that I accept Mr Copeland's evidence. He put a valuation on the Golden Cross of £75,000. Although there was evidence that Mr Gower, now deceased, had been willing to pay £105,000 for her, Mr Copeland was clearly of the view that he regarded that as too high. His ultimate position was that he was content with a valuation of £75,000 and so I find that was the value of the vessel in 2011. Despite the unchallenged evidence about an offer having been made for her, the evidence in relation to the poor state of the Golden Cross, it is not possible to make any finding as to what its value was in May 2013 before it sank. The defender suggested that it was a liability, while counsel for the pursuers submitted that a finding on valuation at that time could be made on the basis of the valuation and other evidence. However, having accepted the evidence about the poor state of the vessel, I can conclude only that before she sank she was worth less than the valuation placed on her by Mr Copeland in 2011. In the event, the vessel was clearly ultimately a liability, it being agreed that the salvage costs were £441,511.60.

Application of the law to the facts

[91] The pursuers' case is that the QHM, for whom the defender is responsible, failed to exercise such care as was reasonable in the circumstances towards the Golden Cross and so the pursuers are entitled to reparation. The pursuers accept that the QHM had a statutory power to remove the Golden Cross from D16 and to beach it, all in terms of sections 11, 13 and 14 of the Dockyard Ports Regulation Act 1865. Section 14 provides:

“14. Power to remove unserviceable vessels

Any vessel ... unfit for sea service shall not be permitted to lie within any part of the dockyard port ... and the Queen’s Harbour Master may cause every such vessel to be removed from the part of the port so specified, and to be laid on some part of the strand or seashore, or in some other place where the same may without injury to any person be placed.”

The primary contention made by counsel for the pursuers in submissions was that the QHM (or Ian White acting as his deputy) did not use reasonable care in exercising those powers because reasonable care would have required an attempt at pumping out rather than beaching the Golden Cross.

[92] There was no real dispute between the parties that the duty of the QHM/DQHM, was to take such reasonable care as was required in the circumstances. The court has to infer reasonableness or otherwise from the primary facts. Counsel for the pursuer relied on a number of authorities to support a contention that there was a common law duty on the QHM and that the powers available in removing or disposing of even unserviceable vessels were not unlimited. In *The Utopia* [1893] AC 492 the House of Lords confirmed a common law duty on the part of the port authority where it became responsible for a vessel that had transferred to its control. However, I note that in that case there had been no negligence on the part of the owners transferring control to the authority. In a case known as *The Crystal*; [1894] AC 508, another House of Lords decision, Lord Macnaghten (at page 531) had confirmed that removal of a wreck or other obstruction by the port authority had to be done “... in the interest and on behalf of the owner as well as in the interest and for the benefit of the public.” His Lordship confirmed that it was incumbent upon the harbour master to remove a vessel causing obstruction in such a manner that was in substantially the same plight and condition as it was before removal commenced, or at any rate with some regard to the interest of the owner. Further, in a case from the modern era, *Peterhead Harbours*

Trustees v Chalmers 1984 SLT 130, Lord Allanbridge, having quoted the words of Lord Macnaghten in *The Crystal* case, emphasised that after disposing of a vessel (in that case after removing it from the harbour), a harbour master is not entitled to destroy it:

“He must have some regard to the interest of the owner. He can lay the vessel on the strand or seashore or place it in another place (that other place being somewhere where he can place it ‘without injury to any person’). What he cannot do is drive it onto the rocks so as to destroy it. In laying it on the seashore he should do it in such a way that at the conclusion of the beaching operation the vessel is, as far as is reasonably possible, in substantially the same plight and condition that it was before the commencement of the operation.”

[93] On the basis of these authorities, the position of counsel for the pursuers was that the law anticipates that someone such as a harbour master (the DQHM in this case) might have to go out of their way to put the vessel somewhere it will be preserved. He submitted further that, the DQHM was under the same duty as a civilian harbour master would have been and he had shown little or no concern for the Golden Cross. That is not a proposition I can accept. I have already found that the DQHM took action without regard for his own personal safety when he went onto the vessel on 4 May. For the reasons given, there was no other practicable option open to him than to beach the Golden Cross and he did what he could to ensure her safety during that beaching operation. Counsel for the pursuer also relied on *The Tramontana II (Owners) v Ministry of Defence and Martin* [1969] 2 Lloyds Rep 94, a case which had involved the Queen’s Harbour Master at Portland who marked a wreck by putting a buoy on it. Subsequently another boat ran into the wreck and the Ministry of Defence responsible for the QHM was sued for failure to mark the wreck properly with a proper type of buoy, one large enough to be seen. Brandon J in that case expressed the view (at page 108) that the defendant, having assumed responsibility for marking the wreck in the exercise of statutory powers, owed a duty to all persons lawfully using the port to carry out the marking with reasonable skill and care, there being no Crown immunity in those

circumstances. I note that in the present case there is no suggestion of Crown immunity and both sides agreed that reasonableness was the test to be applied. There was some suggestion from counsel for the pursuers, under reference to the case of *Copland v Brogan* 1916 SC 277 that the onus was on the defender to prove that he had exercised reasonable care, although it was accepted that this came rather late in the day in the present case. For the avoidance of doubt, I reject any contention that the onus is on the defender in this case. It is for the pursuers to prove a lack of reasonable care, not for the defender to prove the exercise of reasonable care. However, nothing turns on that in this case now that the evidence is out and in light of the pursuers having chosen to lead the main witness for the defender in their proof. In *Copland*, a driver commissioned to deliver a packet containing a sum of money had lost it. The Inner House had expressed the view (at page 282) that the driver, in executing his commission, had failed to exercise the care “which a prudent man would have taken with regard to a valuable packet of this kind” and found him liable for reimbursement to the pursuer. Under reference to *Bells Principles*, he should have exercised “such care as a man of common prudence generally exercises about his own property of like description”. I am not convinced that the situation in which the QHM and his deputy found themselves on 3 May is entirely analogous to being entrusted under commission to deliver a package of someone’s money. The QHM had agreed to let the owners of the Golden Cross utilise buoy D16 for a limited period, which had expired. The circumstances in which the Golden Cross had been all but abandoned by the pursuers, due to a lack of resources, contributed to the crisis that occurred on 3 and 4 May 2013. Nonetheless, for the reasons already given, I consider that Ian White did everything he could to preserve the pursuers’ property and fulfilled his duty of reasonable care. His duty was not in my view unlimited. He had to do his best with the resources reasonably available to him and that is what he did.

[94] There was some discussion in submissions about the Water Environment (Controlled Activities) (Scotland) Regulations 2011. In general terms, these set out the obligation to apply to SEPA for authorisation to carry out a controlled activity involving the water environment. Clearly this would include pumping polluted water into the loch. Counsel for the pursuers pointed out that although Regulation 54(1) confirms that the Regulations bind the Crown, Regulation 54(2) then provides that no contravention of the Regulations will result in criminal liability on the part of the Crown, although the Court of Session may, on an application by SEPA, declare unlawful any act or omission of the Crown which constitutes such a contravention. The Regulations apply (by virtue of Regulation 54(3)) to Crown employees as to any other persons. The specific offence that might have been in play in this case would be failure to comply with conditions in relation to water use which would include polluting the loch. Even if any liability could have attached to the DQHM as a Crown employee, a defence was available in terms of Regulation 48(iii) if an act or omission by a category one or two responder was reasonably necessary to protect people, property or the environment from imminent risk of serious harm. Accordingly, although there was Crown immunity, the list of defences gave some indication that the Regulations built in a defence to those who might not comply with environmental regulations out of necessity. Mr Heaney argued that pumping some water, even if dirty, into the loch in order to save the Golden Cross would have been permissible. The DQHM ought to have known that the regulations did not apply to the Crown and that even in the event that he was concerned that they did apply to him as a Crown employee, he would have had a Regulation 48 defence. One of the difficulties with that argument is that this was not a simple case of causing some harm to the environment in order to save person or property. There was a balance, as already indicated, between doing what was possible to save property (the vessel)

while trying to balance other important considerations including the environment and a nuclear deterrent capability. Even if pumping out had been possible, I do not consider it was reasonably necessary. It certainly was not the only reasonable course available.

Ian White did not beach the vessel because he had decided she could not be saved. He beached the vessel in an attempt to save her. He had to consider the risk that she would sink at buoy D16 and the decision to beach her was in large measure made to avoid the very serious consequences that would have entailed.

[95] The only other legal matter that arose for discussion was the extent to which the evidence of the tug boat captains who gave statements but were not cross-examined should be relied upon. Under reference to the decision in *Gestmin v Credit Suisse* [2013] EWHC 3560 it was submitted that the best evidence is what such witnesses thought at the time and not what they prepare later. In any event, counsel for the pursuers submitted that the statements had all the hallmarks of being prepared by legal advisers and should be ignored. The difficulty with that submission is that the statements of John Philips and Ross Turnbull coincide on material points with the contemporaneous records, including the careful notes kept by Ian White and the evidence of witnesses such as Ian Collins, who had an opportunity to see the Golden Cross on 3 May. I accept that if the only evidence was statements based on recollection and made some years after the event caution might dictate placing less reliance on them. However, the statements of Philips and Turnbull served only to support the views I have reached on the oral evidence and documentary records created in 2013.

Conclusion and disposal

[96] For all of the reasons given, I conclude that the pursuers have failed to demonstrate that the actings of the DQHM on 3 and 4 May were not reasonable. It is not sufficient for the pursuers to make suggestions of other possibilities that, with unlimited resources and more time, might also have been reasonable options. The considerations taken into account by Ian White were all factors that he required to weigh in the balance. He did not have an absolute duty to save this vessel. He did everything that could reasonably have been expected of him in the circumstances. The pursuers' case accordingly fails.

[97] The defender has counterclaimed for the cost of the clean-up operation which amounted to £441,511.60 with interest thereon at the rate of 8% a year from 4 May 2013 until payment. No submission was made on behalf of the pursuers that the counterclaim should fail even if the principal action did not succeed. The counterclaim is based on section 15 of the Dockyard Ports Regulation Act 1865 which allows the QHM to recover from the owner any expenses involved in the removal of a wreck. There was effectively no dispute that, in the event that the actings of the QHM and his deputy had been reasonable, there was an entitlement to these sums. Accordingly, in the principal action I will repel the pursuers' pleas-in-law and sustain the defender's second and third pleas-in-law. In the counterclaim I will repel the pursuers' pleas-in-law and sustain the defender's second and third pleas-in-law and grant decree against the pursuers jointly and severally for payment to the defender of the sum sought with interest at the judicial rate from 4 May 2013 until payment. I will reserve meantime all questions of expenses.