



**OFFICIAL REPORT**  
AITHISG OIFIGEIL

# Rural Economy and Connectivity Committee

**Wednesday 22 January 2020**

**Session 5**



The Scottish Parliament  
Pàrlamaid na h-Alba

© Parliamentary copyright. Scottish Parliamentary Corporate Body

Information on the Scottish Parliament's copyright policy can be found on the website - [www.parliament.scot](http://www.parliament.scot) or by contacting Public Information on 0131 348 5000

---

**Wednesday 22 January 2020**

**CONTENTS**

	<b>Col.</b>
<b>CONSTRUCTION AND PROCUREMENT OF FERRY VESSELS</b> .....	1
<b>PETITION</b> .....	41
Salmon Farms (Closed Containment) (PE1715).....	41
<b>SUBORDINATE LEGISLATION</b> .....	44
Plant Health (Import Inspection Fees) (Scotland) Amendment (No 2) Regulations 2019 (SSI 2019/425)	44
Sea Fish (Prohibited Methods of Fishing) (Firth of Clyde) Order 2019 (SSI 2019/419).....	44

---

**RURAL ECONOMY AND CONNECTIVITY COMMITTEE**  
**3<sup>rd</sup> Meeting 2020, Session 5**

**CONVENER**

\*Edward Mountain (Highlands and Islands) (Con)

**DEPUTY CONVENER**

\*Maureen Watt (Aberdeen South and North Kincardine) (SNP)

**COMMITTEE MEMBERS**

\*Peter Chapman (North East Scotland) (Con)

\*John Finnie (Highlands and Islands) (Green)

\*Jamie Greene (West Scotland) (Con)

\*Emma Harper (South Scotland) (SNP)

Richard Lyle (Uddingston and Bellshill) (SNP)

\*Angus MacDonald (Falkirk East) (SNP)

\*Mike Rumbles (North East Scotland) (LD)

\*Colin Smyth (South Scotland) (Lab)

\*Stewart Stevenson (Banffshire and Buchan Coast) (SNP)

\*attended

**THE FOLLOWING ALSO PARTICIPATED:**

Tim Hair (Ferguson Marine (Port Glasgow) Ltd)

Alex Logan (FMEL Programme Review Board)

Stuart McMillan (Greenock and Inverclyde) (SNP)

Michelle Rennie (FMEL Programme Review Board)

**CLERK TO THE COMMITTEE**

Steve Farrell

**LOCATION**

The Mary Fairfax Somerville Room (CR2)



# Scottish Parliament

## Rural Economy and Connectivity Committee

Wednesday 22 January 2020

*[The Convener opened the meeting at 10:07]*

### Construction and Procurement of Ferry Vessels

**The Convener (Edward Mountain):** Good morning, and welcome to the committee's third meeting in 2020. I ask everyone to ensure that their mobile phones are on silent and I ask members to note that Richard Lyle has had to give his apologies, unfortunately.

I welcome Stuart McMillan, who is attending for item 1, which is an inquiry into the construction and procurement of ferry vessels in Scotland. I invite any member who has an interest to declare to do so.

This is our first evidence session in the inquiry. We will take evidence from Ferguson Marine Engineering Ltd and members of the FMEL programme review board. I welcome Tim Hair, turnaround director at FMEL; Michelle Rennie, chair of the programme review board; and Alex Logan, Ferguson convener and workforce representative.

Although I referred to Ferguson Marine Engineering Ltd, following the transfer to public ownership the company is known as Ferguson Marine (Port Glasgow) Ltd—just to confuse us.

We have a heap of questions. Some of the witnesses have given evidence to the committee before. For anyone who has not done so, do not worry about pushing the button on your microphone panel; we will bring you in. Committee members will probably direct questions to individuals, but if they do not do so and you want to say something, please indicate that you want to come in. If you are the last person to look away because you do not want to answer a question, I will probably bring you in first—that is how I have done it in the past.

**Mike Rumbles (North East Scotland) (LD):** Good morning, panel. I will start with a pretty fundamental and straightforward question, which takes us back to when the contract was awarded. Could Ferguson ever have delivered the vessels within the original timescales and on the original budget? In particular, was enough due diligence done in the awarding of the contract in the first place?

**Tim Hair (Ferguson Marine (Port Glasgow) Ltd):** Good morning. I will try to address those questions, but it is hard for me to comment on the awarding of the contract, because my involvement with Ferguson started in mid-August, when the firm went into administration. Therefore, I cannot really help you on the diligence point.

The vessels themselves are complex and their construction is a demanding, long-term engineering project. However, I do not see why they should not have been delivered. You will have read in my report that it is our intention to deliver them.

**Michelle Rennie (FMEL Programme Review Board):** My role is on the programme review board. Our focus has been very much on supporting Tim Hair to develop a robust programme and cost estimate for the two vessels, from the time when the Scottish Government took control of the yard.

However, it is my understanding that Caledonian Maritime Assets Ltd believed that the tenders that it received at the time were credible and deliverable.

**The Convener:** Does Alex Logan want to come in on that point?

**Alex Logan (FMEL Programme Review Board):** Obviously, we were not involved in the design and its context. When the contract was awarded, it was a big boost for us. We could see a long-term future. However, when the contract came out, we asked ourselves, as the local workers who had been there a long time, how we would build two ships of such a size. The yard was not set up to build two ships of that size side by side, while melting down the shipyard, as we were doing during the contract, to rebuild and modernise it. We did not see how we could build two ships and modernise the yard at the same time, because we just did not have the room.

**Mike Rumbles:** What were the main drivers behind the increased costs and the delays that were experienced? You have given us a hint of that. In your opinion, what was the main reason for the increased costs and the delays?

**Alex Logan:** Probably the design. The design concept was never agreed from the outset. As far as I am aware, we still have design and technical problems.

Previously, at Ferguson's we had our own drawing and planning office and our own design team. We did not have that for this contract, because the work was exported to Vera Navis, in Portugal. When you are on a job and you need information, you have to go back to the drawing or planning office. It is difficult to get that information if the issue has to go to Portugal for approval and

come back through the system. That can create a delay in information getting to the shop floor. Not having a drawing office that we can go to directly for a quick answer on stuff means that questions have to go to Portugal, which means that it is a long, long time before we get the answers and can move forward with the contract.

**Mike Rumbles:** I know that I asked for an opinion and that I asked questions about a time that predates the other witnesses' involvement. Were you surprised that the contract was awarded to Ferguson's?

**Alex Logan:** Not at all. If you look at the history of Ferguson's, you will see that the MV Hebrides, the MV Isle of Lewis and the MV Isle of Mull—all the big ferries—were built on time and on budget.

**Mike Rumbles:** What you are saying is—and correct me if I am wrong; I am just trying to get reactions to the awarding of the contract—that the awarding of the contract was perfectly normal. From your perspective, due diligence must have been done and Ferguson's was perfectly capable of delivering on the contract, so there was nothing unusual about the awarding of the contract in the first place. Am I paraphrasing you correctly?

**Alex Logan:** Yes. We had no problem. We were more than happy with the award of the contract. The only thing that concerned us at the time was the size of the contract and, as I said, the space that we had available in the yard for building units, transporting them to the berth and putting them out. That was the only thing that we questioned. I knew for a fact that the berth was not set up to build two big vessels of that size side by side.

10:15

**Mike Rumbles:** That is very helpful. Do other members of the panel have any comments? You must have looked back at the history of the contract. Knowing what you know now, were you surprised that Ferguson's got the contract in the first place?

**Tim Hair:** Alex Logan was there and has covered that. I genuinely have not examined the detailed history of the contract award. I have been much more focused on the situation that we have found and dealing with the recovery of the yard.

**Mike Rumbles:** So, you express no opinion or any surprise that you are in this position in the first place because of the initial award of the contract. There is not an issue as far as you can see—I am surprised by that.

**Tim Hair:** As far as I can see, there is no issue but, as I said, I have not examined it in detail, so I do not really have an opinion.

**Jamie Greene (West Scotland) (Con):** I will follow up on that line of questioning. Michelle, you were at Transport Scotland up until 2019. Did you have any involvement in the project during your time there?

**Michelle Rennie:** No, I had no involvement in it up until last summer.

**Jamie Greene:** I presume that at some point, we will have witnesses from Transport Scotland who were involved in the project come in to speak to us, so I wanted to clarify that I should not start questioning Michelle Rennie on behalf of Transport Scotland. I am sure that there are plenty of questions for Transport Scotland, but those questions are not for you—is that correct?

**Michelle Rennie:** That is correct.

**Jamie Greene:** Mr Logan, I found your initial answer very helpful. It sounds to me that, although Ms Rennie said that CMAL believed that the project could and should be delivered on time and on budget, the workforce had reservations from an early stage that that might be unachievable. What was done about that at the time?

**Alex Logan:** I have to make it clear that, throughout the whole project, the workforce have done what they have been asked to do. If we had given them the drawings and the design, they would have built it and it would have been done to a high quality, on budget and on time. However, there were constant changes from CMAL, Vera Navis or us, and we were constantly building and changing and building and changing, and there was no clear concept of the final design. If we had had a final design that was signed off by CMAL, I am sure that we would now be much further on in the contract.

**The Convener:** We will come to that point later. Does Jamie Green have any other particular points?

**Jamie Greene:** We will come on to my other areas later.

**Colin Smyth (South Scotland) (Lab):** I want to come back to the initial point that was made to Ms Rennie and Mr Hair. Knowing what you know about the design of the ships that are being built at the moment and what needs to be done to deliver them, do you think that the budget that was set right at the start of the project was realistic and adequate?

**Tim Hair:** My starting point is the current condition of the ships. The yard has the ability to build the ships, so I presume that Ferguson's would have had the capability previously.

**Colin Smyth:** Could those ships have been built for the figure that was in the contract?

**Tim Hair:** I have not set out to look at the cost of building the ships from scratch compared to the original contract figure. My focus has been on dealing with the problem of delivering the ships. I know that there was an open tendering process run by CMAL and I assume that the Ferguson's contract was comparable with others, but that is not something that I can answer in detail myself.

**The Convener:** I am sorry, but I am a bit confused by that, Tim. You set out in your turnaround paper a cost of £110.3 million to make what is there functional and seaworthy. However, anyone putting a budget forward to construct something would obviously look at what the cost of starting again would be, because if doing that cost less and would be more effective, that would surely have to be put into the mix. However, you are telling the committee that you have not looked at the start-again cost. I find that quite confusing.

**Tim Hair:** We looked in outline detail at the option of scrapping the vessels and starting again, which was driven largely by the timetable that would be required to scrap them and start again from scratch. We decided to pursue the option of completing the vessels. Our conclusion was that the outline cost of starting again would not be dramatically different from the cost of completing the vessels as they are.

**The Convener:** It is very difficult to know what that option would cost if you have not costed it right the way down. Your outline cost is a bit of a guess, is not it? It is a guesstimate. What I am trying to find out is whether, from the taxpayers' point of view, a guesstimate is sufficient.

**Tim Hair:** Our decision about the best way to deliver the contracted ships was based on consideration of the timetable and an assessment of costs but not on a detailed, ground-up rebudgeting of the vessels. We had to make a decision early on about what route was likely to get the vessels delivered most quickly and most cost effectively. The decision was based on an assessment, but not on a detailed rebudgeting of the vessels.

**The Convener:** Committee members have a lot of questions that have come out of that. Maureen Watt is first.

**Maureen Watt (Aberdeen South and North Kincardine) (SNP):** Mr Logan, I want to drill down into what you said about the yard not really being big enough to deal with the two vessels. My understanding is that the hull would be built on the slipway and, once it was completed, it would be launched and the rest of it would be fitted out on the quayside. That is the sequence, so are you saying that there was not enough quayside? Can you explain a bit more about that to the committee?

**Alex Logan:** Certainly. Ferguson is situated right beside Newark Castle. The concrete slip yard can take one big vessel and possibly a small vessel like the MV Catriona, which is one of the hybrid ferries. Two vessels like that could be built there. However, in my opinion, we were not able to facilitate building two vessels of the size involved so close together, because there was not sufficient ground. We started the 802 hull and it was moved towards the Newark Castle side, which was all soft ground. If we had started putting hundreds of tonnes of units on that, it would have sunk. It was not sustainable to do that. I think that the plan was to build the 801 hull, build so much of the 802 and then transport 802 on to the slip where 801 was. So, one would be launched and the other one would be moved across. That is fine in concept, but we could not have done that for the build schedule that we had, because the 802 build would have come to a complete standstill while 801 was getting prepared for launching.

**Maureen Watt:** Given where we are now, is it possible to do that work?

**Alex Logan:** The 801 hull has already been launched and is in the water, and 802 has been moved across on to the solid berth. So, it is now about fabricating and moving on with the concept and design. Once we get the design, we can move forward.

**Maureen Watt:** I think that we will come on later to the issue of adding weight, so thank you.

**Stewart Stevenson (Banffshire and Buchan Coast) (SNP):** I have a very small question for Mr Hair, on costs. I just want to be clear in my mind that there are two costs. There is the cost that the customer is going to pay the supplier and the other is the cost to the supplier to produce what is being delivered. Those costs will rarely be exactly the same, because the supplier hopes to make a profit and therefore to have a lower cost than what the customer will be charged. In this case, it looks like it was the other way round. In other words, there was a loss.

Recognising that you were recently on the programme review board, was the contract a fixed-price contract for CMAL, as far as you were aware, and how did the costs that CMAL was expecting to pay relate to what it might have cost the yard to build the vessels in a properly managed situation?

**Tim Hair:** The contract was and is a fixed-price design and build contract, and CMAL expected to pay the contract value plus any negotiated variations to the contract. I assume that Ferguson Marine expected to make a profit from the vessels. I have not examined the accounts and the assumptions from four years ago to find out what the company expected to do to make a profit.

**Stewart Stevenson:** But it would be normal business for the costs internally to be lower than the sale price, because the expectation of a commercial company is to make a profit.

**Tim Hair:** It would be, yes.

**Mike Rumbles:** I want to come back to Mr Hair on something. I understand what you are saying to us, in that you are focused on getting things right for the future, but surely, as the turnaround director, you must examine all the lessons to be learned from what has happened up until now, rather than say, "That's not for me." Surely the turnaround director, if he is doing his job right, will examine what has happened so as to ensure that similar or the same mistakes are not repeated.

**Tim Hair:** The approach that I have taken is to understand how the business operates now, to understand where there are shortcomings in the existing process and to set out a programme of work to correct them.

In my experience, I have never found that holding a post mortem on how decisions that created such shortcomings in processes were taken has added a great deal. I find it better to examine where the current processes fail and to put steps in place to correct them.

**Angus MacDonald (Falkirk East) (SNP):** It might be helpful for the committee to state for the record that the cost of the Loch Seaforth, which does the Ullapool to Stornoway run and which was built in Poland and Germany, was £42 million. If two Loch Seaforths cost £84 million, two smaller ferries are presumably deliverable for £97 million. Would you agree?

**Tim Hair:** That seems logical, but I am afraid that I do not know anything about the Loch Seaforth. The logic seems to work, however.

**Angus MacDonald:** The 801 and 802 are smaller vessels than the Loch Seaforth. I just make that point for the record.

**Peter Chapman (North East Scotland) (Con):** This question is for Mr Hair. I want drill down a bit more into the costs. The original agreed price for the two vessels was £97 million. There are now two vessels: one is in the water, I assume three-quarters built, and one is on the slip, half built. Would that be fair to say? There are two partially built ships, but it now seems that it will cost £110 million to finish something that is pretty well on. One vessel is certainly a recognisable ship and the other one in the dock is further away from that, I assume. There are assets there, anyway. The final figure is another £110 million. I cannot get my head round why it is costing so much more to finish the vessels, given that you already have two vessels partially built.

10:30

**Tim Hair:** Although the one in the water looks close to completion, it is, in fact, a very long way from completion. I know that the committee plans to visit the yard in February; I look forward to taking members on to the ships and letting them see their actual state. The ships are much further away from completion than they look from a distance.

**Peter Chapman:** Nevertheless, you have an asset there. A ship is floating in the water right now. Surely there must be some value in that.

**Tim Hair:** There is a value in it. The figure of £110 million was arrived at by means of a very detailed examination of the two vessels and an understanding of the rework that is needed in order to bring them up to a viable standard; the costs of running the yard while the vessels are reworked, the yard's processes and controls are fixed and the work to complete the vessels is finished; and the costs of completing the design and various other matters. The figure is significant, but it was based on as rigorous an assessment as we have been able to carry out, and I am confident that we can deliver the two vessels for that amount. It was produced not with reference to the past, but using a detailed evaluation of the vessels and the work that is necessary to complete them.

**Peter Chapman:** Does Michelle Rennie have any comment to make in response to my question?

**Michelle Rennie:** The costs that Tim Hair and his team have identified are those that will be necessary to bring the vessels as they now stand up to the specification that is set out in the contract. The programme review board gave quite a lot of attention to those costs, acknowledged what they are as a proportion of the original costs, and tried to understand that.

Work is required not only to finish the vessels; quite a significant amount of work is required just to bring them up to a standard at which the guys in the yard can continue to develop the build out to the finish. I am talking about things such as the condition of the paint work on the vessels. I think that work has taken place as a result of issues relating to the design and the design approvals. Some elements of that work will have to be taken out and redone in order to facilitate other works.

It is not quite as simple as picking something up and finishing it. There is a bit of unpicking to do before we can get back to that state again.

**Peter Chapman:** I find this absolutely incredible. You have a hull in the water, and I assume that the basic hull is fine. You speak about paint work. For goodness' sake, that is an issue, but it is a very minor issue in relation to the



total build cost of the two ships. Even if you have to unpick some of the stuff that has been done, how the heck do you get to £110 million? That is more than the original cost of starting from scratch with a pile of steel and nothing else. It just seems incredible.

**The Convener:** I am afraid that I am not sure that you will get a definitive answer on that.

**Peter Chapman:** No, maybe not.

**The Convener:** Tim Hair looks perplexed. Do you want to add something that would clarify matters?

**Tim Hair:** I am sorry: I did not mean to look perplexed. I understand the concern. All that I can say is that the process that we have gone through to establish the costs of fixing the vessels, fixing the business, and completing the ferries has been as rigorous and detailed as it is possible to be. The number that has been quoted is a significant amount of money, but it is the result of a rigorous piece of work to properly evaluate the requirements.

**The Convener:** Does Alex Logan want to come in on that? The question that members are pushing concerns the fact that we have two half-built boats that have cost us approximately £100 million, and it will cost us another £100 million to finish them off. Do you want to comment on that particular point?

**Alex Logan:** To go back to what Peter Chapman said, in the takeover of FMEL, as far as I am aware, we took on the contracts on a design-and-build basis, along with CMAL. I do not think that anything specific was factored in with regard to what would happen if there were changes and who would pay for those changes—whether that would be CMAL or another company. That is part of the problem. There is a design-and-build approach, but there is still no proper design. It has not been completed after four years—it has never been finalised by CMAL or whoever.

I go back to what Angus MacDonald said about the two ships that were, I believe, built in Poland and Germany. You will probably find that they are just diesel electric ships rather than liquefied natural gas ships. We have had it drummed into us that the new ships are the first in class. If you have a question about those two ships, perhaps it should be for CMAL or the Scottish Government. Were they the right ships to build for Scotland, moving forward? We should bear in mind that we did not have bunkering stations. I believe that an extra £50 million or £60 million had to be put in to upgrade all the piers for those two ships, because they are probably the largest structures in the Scottish fleet.

**The Convener:** You have brought us neatly to the next question, which is from John Finnie.

**John Finnie (Highlands and Islands) (Green):** Good morning, panel. There is a lot of interest in propulsion systems. There always has been, but there is perhaps more interest in them now than there ever was, given the climate emergency. Ferguson Marine previously delivered three dual-fuel vessels: MV Hallaig, MV Lochinvar and MV Catriona. I accept that they were considerably different in their design, but I wonder whether there is anything specific to the project that we are discussing in terms of design, engineering or other requirements that resulted in delays or overruns. I am thinking in particular of the dual-fuel system.

**Tim Hair:** I will come back to the dual-fuel system. Perhaps it would be useful first to touch on the process of designing a ship.

The conceptual design or specification is part of the contract. That was done by CMAL, which produced an outline design of the vessel to meet the service requirements, with a reasonably detailed specification that included the type of engines that would be used and an outline of the ship. The conceptual design is the basis of the contract—it is what shipyards bid against.

Once the contract is placed, the first stage, which is the responsibility of the shipyard, is to take the conceptual design or specification that is part of the contract and turn it into a basic design. That will contain key elements, such as the detailed structural steelwork—scantlings, in the jargon—the systems and schematics of how the pipelines are going to work in general diagrammatic terms, along with various other matters.

The detailed design is approved by the customer—again in the jargon, it is approved by flag and class. In this case, “flag” is the Maritime and Coastguard Agency and “class” is Lloyd’s Register, which approves the technical matters on behalf of the insurers.

Once the basic design has been produced by the shipyard and approved by those three bodies, it is turned into a detailed design with 3D models that show exactly which piece of equipment is going to go where and what pipeline goes where. That is then turned into the production information to which Alex Logan referred.

The reason why I am trying to set out the process is that the word “design” is used in three contexts. There is the conceptual design part of the contract—the specification, if you like; the basic design, which is the first maturity of the design produced by the shipyard; and the detailed design to which the vessel is eventually built.

**John Finnie:** As regards what the layperson would refer to as design, was that process followed as you would expect it to be in relation to both vessels?

**Tim Hair:** I am happy to comment on that. The conceptual design that was done as part of the contract was clear. There was an earlier reference to changes. As part of the contract, some changes that were made as part of the change management process were agreed between Ferguson Marine and CMAL, and they were properly defined as part of the contract.

To give an order of magnitude to those agreed changes, they were worth £1.5 million in contract variations on a £97 million contract. The conceptual design was stable, and the changes were small and were managed in a controlled way. The basic design, which is the shipyard's responsibility and which requires the sign-off of owner, class and flag, as I mentioned earlier, is still not fully complete. The roughly 5 per cent of sign-offs that one would normally expect to be completed in the basic design within around six months of the contract being placed were not completed. I am sorry: I should have said that 5 per cent of them were completed and 95 per cent were not completed when we took control of the yard in August 2019. One of the tasks that is being undertaken at present is to complete those basic design sign-offs so that the design basis of the vessel is solid.

One of the causes of the problems at the yard is that, although the vessels have been built—they are significantly less than half built even now, as you will see when you visit the yard—there are basic design elements that have still not been approved by the three parties, and changes are required to the actual physical construction of the vessels in order to have what has been built comply with the design sign-offs, which would normally have been done in the first six months of the contract.

I realise that I am describing a complicated process at length, but I think that the issue of design changes, where they occurred and what work was carried out at what stage of design is key.

**The Convener:** Before I allow John Finnie to come back in, I note that an understanding of the design process is critical to the whole thing. What you have said is very interesting, Tim. It would be useful for the committee to hear about the conceptual design, which you have talked about, and the basic design, 95 per cent of which had not been signed off when the yard was taken into public ownership in August 2019, four years after the contract was awarded. To your mind, when, under proper, clear management, not only from the contractor but by the person taking on the job,

should warning flags have been raised? It appears to me that we are hearing about the 95 per cent problem only now.

The committee visited the yard on 29 October 2018, and we were made aware that there were some issues, but we were not aware that all the drawings had not been signed off to that stage. Should not only CMAL but FMEL and the Parliament have been aware earlier that there were problems with the design?

**Tim Hair:** Based on conversations with people who have spent their careers in the shipping industry and who are intimately familiar with such processes, I would expect the basic design elements to have been signed off in the first six, nine or 12 months. That is not a single process. A design matures over time: it does not get completed and signed off, with the next phase then starting. There are elements of design that are developed and signed off, and then the next element is developed and signed off. Accepting that the process is one of maturity, I would expect the basic designs to have been signed off in the first six to nine months of the contract.

10:45

**The Convener:** The committee received correspondence on 9 November 2017 from the then Minister for Transport and the Islands, Humza Yousaf; we received correspondence from Michael Matheson on 16 August 2018; and we received further correspondence on 17 June 2019. All those dates are considerably past the nine-month period to which you have alluded. The correspondence just said that the ferries were going to be delayed and were not going to be produced on time.

Do you not think that the committee should have heard more at each of those stages about the problems that were faced, which, from what you have described, seemed to be legion?

**Tim Hair:** The point at which we became aware of the design matters was in the assessment of the condition of the vessel. The starting point was whether we had approval of the design. I do not mean to be evasive, and I am not trying to be, but it is really difficult for me to say what the committee should have been told two years ago.

**The Convener:** Okay. We will go back to John Finnie; I apologise for asking those questions, but it was important for the process.

**John Finnie:** Thank you, convener—that was helpful.

I would like to hear Mr Logan's view on this. As I mentioned earlier, the yard's skilled workforce previously delivered three quality dual-fuel vessels. What was different about this case, Mr

Logan? Was the difference down to what was seen to be an innovative design in respect of propulsion? What was different about the two vessels in question?

**Alex Logan:** The difference is that the three vessels that you are talking about were just small vessels.

**John Finnie:** I appreciate that they were much different in scale, but I presume that the process for building them was similar.

**Alex Logan:** On the process, all the design work for the three small ferries was signed off and all the plans were there. Once the first hybrid ferry was designed in concept, the work moved on to the second one. There were design changes—the batteries were upgraded, so the design was different. The second ferry followed on from that. Every aspect of the design concept was signed off, done and delivered. We had all the drawings, and we moved forward.

It was less simple with the present contract. In building the ship, we could see some of the flaws in the design changes, which had come from Portugal. As the workforce, we knew that the mooring decks on the front were not up to standard when it came to the thickness of the deck plates, but because that was on the design, we were told to go ahead and build the unit. The unit has been built, but we know for a fact that it needs to be looked at again. The design was never in place; it was never signed off. About two weeks after building the unit, there was a change in the design. When it came back from Vera Navis in Portugal, we had to change the concept. Time and money were wasted building the unit, which will have to be scrapped and started again.

We do not have a concrete design and a finished drawing; we do not have the finished article. Everything should have been signed off and finished. That is where CMAL and FMEL fell down. They had come to loggerheads and could not agree on the design. We could not move forward, so things just came to a standstill. It was like a stand-off at the OK Corral—it was a question of who was going to cave in first.

**John Finnie:** I am not in any way critical of the skilled workforce, but I presume that if people with all those engineering skills said that something did not look to be the right thickness or in the right position or whatever, that would be shared. Who would that be shared with? What was the response when those issues were shared?

**Alex Logan:** Concerns would probably be shared with the drawing office and the design office. Most of the stuff would probably appear in the owner's observations. We had two members of CMAL personnel on board, and you will probably find that they put in owner's observations.

Because those things form part of the design package, changes have to be agreed, which means going back to the start.

We were not involved. We could only say that we did not think that something looked right in our eyes, as a skilled workforce. Because the design concept had already been put into the drawings from Lloyds or the MCA, we just built to the specifications that the drawings provided for the personnel on the shop floor.

**John Finnie:** I am conscious that we have a lot of questions to get through, but can you tell me whether the concerns that were raised by members of the workforce about what they saw to be the shortcomings of the project were recorded somewhere?

**Alex Logan:** Probably not. Those concerns were expressed as we went along. You should bear in mind that there was a lot of conflict between the shop floor and the management team that took over when the contracts first started. A bullying culture came in with the two managers who were put in place. With the director, the view was that we did not know anything. It was a case of being told, "Just do what we tell you to do or you'll no be here." It became a wasted exercise for the workers to question what was provided. If we were provided with a drawing, we built to the specification of the drawing. If, once a unit was complete, the management had wanted to change it, we would have changed it, but it was not our concept to fix—that was for the management team or the design team to do.

**Maureen Watt:** Mr Hair, you set out the conceptual design, the basic design and the detailed design. Who did the conceptual design?

**Tim Hair:** The conceptual design was carried out by CMAL with, I think, the assistance of a third-party specialist naval architecture firm. The conceptual design was CMAL's responsibility and it was used as the basis of tendering for Ferguson and other shipyards. Once that conceptual design had been agreed at the contractual stage, it was the yard's responsibility to carry that forward through basic design and into detailed design.

**Maureen Watt:** Which naval architect did CMAL get to do the initial design?

**Tim Hair:** I am afraid that I do not know.

**Maureen Watt:** It was Houlder Ltd, was it not?

**Tim Hair:** Yes.

**Maureen Watt:** The company's website tells you that.

**Tim Hair:** Yes, I think that you are right.

**Maureen Watt:** Houlder did the conceptual design for CMAL, that was put out to tender and FMEL won the contract.

**Tim Hair:** Yes.

**Maureen Watt:** As far as you are aware, why was Houlder not given the job of carrying on with the basic design and the detailed design?

**Tim Hair:** I have not examined that question. My understanding is that Houlder does not necessarily have those capabilities, but it would be normal for a shipyard to carry out the basic design and detailed design as part of its responsibilities.

**Maureen Watt:** Would it normally be the same contractor that would carry forward the building?

**Tim Hair:** Normally, the conceptual design would be part of the contract and turning it into basic and detailed designs and working drawings would be the responsibility of the shipyard. It is the responsibility of the shipyard to deliver the specification that is in the contract and to design it in a way that fits with the yard's build strategy and equipment. That is something that the shipyard would normally do itself, or possibly with the assistance of contractors.

On the basis that each shipyard is different, has different equipment and goes about building things in a way that fits its infrastructure, it is normal for shipyards to take responsibility for the basic and detailed designs.

**The Convener:** Michelle Rennie wants to come in. I think that she was disagreeing with what Tim Hair said.

**Michelle Rennie:** On that point, the purpose of the conceptual design—I understand that the committee will hear from people from CMAL, who will be able to give more detail on this—is to prove that the design is capable of being taken forward and a vessel produced as a result. The ownership of that design would then transfer to the design and build contractor, which, in this case, was FMEL. It would be normal, in those circumstances, for the reasons that Tim Hair set out, for the contractor to take ownership of that design and to produce—either directly or through a third party that it has contracted—the detailed design.

**Maureen Watt:** Okay. My further questions are probably for a future panel.

**The Convener:** Perfect. Stewart Stevenson will ask the next question.

**Stewart Stevenson:** I want to explore the management processes—in particular, the project management processes. I should say that I used to lecture to postgraduates on project management and have 30 years' experience in running large projects, but not engineering projects of this kind.

I have before me a couple of Gantt charts, which I would expect to see as part of such a process. I note that, in relation to defects, the programme review board's report states:

"FMEL does not operate a full defect management system. As such, there is no record for defects identified and managed to a conclusion."

Individually, that is a big warning sign.

On coming in, did the recovery team have access to Gantt charts that were based on a proper work breakdown structure, with precedences and dependencies built in, as would be part of a normal project management process? There might not have been a full defect management system, but was there a change register? Were the normal administrative processes, which are quite independent of what a project does, in place to enable the senior management to receive proper reports as to what was going on and to allow the yard to progress the project to a successful conclusion, surmounting the inevitable difficulties that always arise as big projects go along?

**Tim Hair:** The short answer is no, those were not in place. I would have expected to find a project manager who had end-to-end responsibility for and knowledge of the project—a single senior individual who had oversight of the project in all its detail—but that role did not exist, and as far as I could make out, it had never existed.

As regards the planning system, there were some planning tools such as those that you described, but they were badly flawed. They were based on incomplete information and were produced by a planning organisation that had nowhere near enough people. Although there were people who were working diligently to plan activities, they did not have the right skills to be able to produce a plan.

Not only was there not a planning process producing what you have described, but there was no real prospect—given the number of people in the yard—of creating a planning process. The ability to track progress against the overall project, rather than deal with the detailed planning in the yard, was absent. In an industrial business, we would expect to find a bill of materials as part of the planning routines, which, in effect, is a list of the equipment that must be procured in order to be able to build the ship. There was no comprehensive bill of materials. Without that, the control of procurement and the provision of equipment in the right place and at the right time become almost impossible.

**Stewart Stevenson:** Have you ever seen a complex project of this nature that it was possible to deliver to anywhere near its original objectives in the absence of a bill of materials, a Gantt chart,

a work breakdown structure and a project office that is suitably staffed with people who are qualified to do the mechanical drudgery that goes with managing the thousands and thousands of tasks that are associated with such a project? I am sure that you talk to others in the trade. Have you ever come across a project in which all those things were absent and it was still delivered successfully?

11:00

**Tim Hair:** No. I have reported on the absence of some of those things, and others, in my report. Frankly, I was surprised by the fact that those systems were absent or badly flawed. Earlier, I was asked whether I had looked at why things had gone wrong when I had identified what had gone wrong. Instead of asking why we had got to the stage of having no project manager or project management systems, because the deficiencies were obvious, we set about repairing them.

Two weeks after I started, I made my first appointment: I appointed a highly experienced programme director with a shipbuilding background to take control of the project and to establish those processes. We have done other things to deal with the weaknesses, and we continue to do so.

**Stewart Stevenson:** I have two short additional questions, because the fundamental issue is now apparent.

In relation to change management, was there a register of requested changes? Did that register reflect to whom those changes were allocated for action?

**Tim Hair:** Under the contract, there was a register of changes, which included changes that were requested by CMAL and changes that were requested by FMEL. If I remember rightly, there were about 110 changes in the register, 81 of which were agreed and implemented. Of those 81, 46 had been requested by FMEL, with the others being requested by CMAL. The net effect of that was the £1.5 million impact on the contract, which I described earlier.

**Stewart Stevenson:** In relation to a project of such a size, that was quite a small change register that had only a couple of per cent effect on the financials. That suggests that there were probably lots of other changes that might not have been in the register. I see that Michelle Rennie is itching to come in.

**Michelle Rennie:** It is important to be clear about what we mean by change, because there are different types of change. As Tim Hair set out, the design process is quite an iterative process, so it needs to take into account the elements that

have already been designed. When a design is incomplete and there is no overall co-ordination, if some of its elements conflict with future elements, or if there are elements for which pieces of plant and equipment are outwith specification, a request might be made to change those to bring them back into specification. However, that does not represent a change to the original contract or the original specification, and, ultimately, it should not result in a net financial benefit to the contractor.

**Stewart Stevenson:** Forgive me; I am operating at a slightly lower level. Although I accept what you say, it would nonetheless be a change, in that it would require a task to be undertaken as part of the project to effect it, and would therefore need to be part of the project plan, to ensure that it was allocated, undertaken and signed off, would it not?

**Michelle Rennie:** That is correct. It should be picked up as part of any normal quality management—

**Stewart Stevenson:** I am sorry, but I want to go back to the one omission that has emerged in this exchange. No mention has been made of changes that came from the design contractor, yet we heard from Mr Logan that changes came from that source. Was there no register of the changes that came from that source? Was there no information about those changes?

**Tim Hair:** The answer that I gave related to the change register for the contract. The change register that applied to the process of creating the basic design, the detailed design and the working instructions to which a ship is built, as Michelle Rennie rightly said, was a mess. Some changes were properly recorded; many were not. Some drawings were updated; many were not, or were updated in the form of sketches rather than of formal engineering changes. The change register that related internally to the business, which covered the changes that were made as part of the design process, was very much lacking in detail.

That affected the ability to track changes. The reference in the report to change control relates largely to internal matters. In my view, the owner's observations that were reported were not changes—they were areas in which CMAL had raised concerns about what had been carried out and its compliance with the contractual or concept design.

**Stewart Stevenson:** Arguably, that was a fault that leads to a change.

**Tim Hair:** Arguably, it is fault that leads to a change as we work through the owner's observations with CMAL and try to address them. The majority of those are about execution of the

detailed and basic design, or issues that relate to sequencing of the design and work.

**Stewart Stevenson:** My final question probably requires a one-word answer. Having seen all the information and put in place processes that are fit for purpose, are you now confident that you have a plan that is of the required character and that is fundamentally different from and of a better order than what you inherited?

**Tim Hair:** I am confident that it is different and of a better order. Obviously, given the scale of the turnaround in the business processes, we are not at the end of the process changes, but we have made a good start. The planning is robust enough that I can be confident in the basis of the report. However, there is still a heck of a lot of work to do to get the processes to where they need to be. I am sorry that that was not a one-word answer.

**The Convener:** I know that Colin Smyth wants to cover some of the defects in the design process, so we might come back to that.

**Jamie Greene:** Before I ask you about relationships and communication, I note that you submitted a turnaround report on 9 December, Mr Hair. When you went into the yard, new and fresh to it, did you do so with a fairly open mind as to what you might find and who might be responsible for some of the failings to date?

**Tim Hair:** Absolutely.

**Jamie Greene:** My interpretation of the executive summary at the beginning of your report—please correct me if I am wrong—is that 100 per cent of the blame for the situation that we are in is to be placed on the former management of Ferguson Marine rather than on CMAL, the workforce, Transport Scotland or the Scottish ministers. My interpretation of your executive summary is that the situation is entirely down to the former management team at the yard. Is that correct?

**Tim Hair:** My executive summary seeks to define the situation on arrival at the yard. It does not seek to apportion blame.

**Jamie Greene:** It does, because it says that there was a

“lack of project management”

as well as

“an absence of project planning and control systems”.

It says that

“processes and controls are weak”,

and it refers to

“Immature design and out of sequence working”.

Whose fault is all of that? Those are your words.

**Tim Hair:** They are my words, and I stand by them as an assessment of the situation that I inherited. You would have to ask the previous management about the process, the responsibilities and the decisions that were taken in order to get to that situation, but that is the situation that I found.

**Jamie Greene:** You inherited the business in that state and the summary is your analysis of what you inherited. You say that the arrival at that situation was the responsibility of those who ran the business before you took it over. I assume that your assessment is that those failings are the fault of the previous management team at the yard.

**Tim Hair:** The situation at the yard is as I have described it. The previous management team will have to answer those questions.

**Jamie Greene:** I am sure that they will have ample opportunities to do so.

That leads me on to the relationships between the various stakeholders. It sounds to me from Mr Logan’s answers as if there were some issues between the workforce and the management team at the time. Perhaps we will learn more about that while you are here. There were clearly communication issues to do with change management between the customer—CMAL—and the yard, which was responsible for the design. Will you enlighten me with your analysis of those relationships? Were they positive, difficult or impossible? Did they start off well but deteriorate over time? If so, why?

**The Convener:** Who wants to answer that? Alex, were you there when we visited the yard on 29 October?

**Alex Logan:** No. Unfortunately, I was off as I had had a hip replacement operation.

**The Convener:** On that visit, we met members of the workforce and the union, and the relationship seemed to be quite good.

**Alex Logan:** In 2014, when Mr McColl acquired the yard, we started off with a good working relationship. Mr McColl was at the forefront of the business. With some of the management team that was then put in place, we had a difficult two or three years. We thought that we still had a trade union recognition agreement, but in 2016 or 2017 it turned out all of a sudden that we did not, and we had to go back to the Advisory, Conciliation and Arbitration Service and write a new agreement.

Once we had addressed the situation with Mr McColl, that management team was removed from the business, and Gerry Marshall was brought in—I think in 2017—as the head director. We started off with a good relationship with Gerry. He was more involved with the trade union and we had

regular meetings with him. He kept us up to date with the changes from CMAL. We would be told the situation and we would try to reflect back to the workforce why we were not moving on with the contract.

As I said, the situation became one in which CMAL and our management team could not sit in the same building to have a constructive discussion, so things just came to a complete standstill. That started to affect the workforce, because the work on the vessels stopped. People started to worry about their jobs again, because we did not have many more contracts on the horizon. Temporary labour was coming and going and we were fearful that, if things did not move forward quickly with the two sides getting together to get a concept for design, we would be in the situation that we found ourselves in in 2019.

**Jamie Greene:** You said that there were reservations from the early stages of the awarding of the contract about the yard's ability to build both ships at the same time. Was the view that it would have been better to complete one hull and then move on to the second? Was it the workforce's view that it was always going to be difficult to work on both ships concurrently?

**Alex Logan:** Yes. That was plain to see when we started given the size of the vessels and their breadth on the berth. We would need a mobile crane to get down between the two ships if we started building them together, and there was not enough space to get that.

**Jamie Greene:** Did the workforce express those concerns to the management team? If so, what was the response?

**Alex Logan:** I think that a director, Mr Campbell, had taken over the business, and he just said that he did not like our negativity.

**Jamie Greene:** You said that CMAL and the management team at FMEL could not sit in the same room. That sounds like an issue when they were trying to build a £100 million ship. What effect did that have on the yard's ability to get stuff done and make sensible decisions?

**Alex Logan:** That situation was well above my pay grade. As I said, when the contract to build two large vessels was awarded, the workforce thought that there was a long-term future for the yard. If work stops—as it did, because people could not agree on the design or who was paying for changes—it starts to impact on the morale of the workforce.

It did not help when the company decided to bring in agency workers. They were on a contract of 78 hours a week and were basically unsupervised. We started at a quarter to eight in the morning while they started at half past six, so

by the time we got on site and the welders went to their jobs, there were no welding machines because they had all been taken by the agency workers. There were no jobs for us, and we were just told—

**Jamie Greene:** Sorry to interrupt, but who took on the agency workers, and why?

**Alex Logan:** It was the company. It said that it was because of the size of the contract. That was detrimental to the workforce that was already there, because we were not given jobs to do. Skilled welders and platers did not have jobs because all the machines were taken up by agency workers. We were basically standing about doing nothing—all that we could do was take a brush and brush up.

11:15

**Jamie Greene:** I could ask lots more questions about that, but I will finish with some questions about communications, especially around change. Small and big changes can come from either side—they can be requested by the yard or by the customer—but there must be a process for that. Any sensible customer or contractor would have a pre-defined process for managing changes, but it sounds as if the relationship broke down. What effect did that have on the ability to manage the changes successfully?

If the two parties could not sit in the same room and agree on an outcome, someone will have said at some point, "Enough is enough." Surely CMAL or the yard must have said that they could not proceed if they could not manage and negotiate such substantial changes. How did that come about and what effect did it have on the ability to make progress with the ships?

**Tim Hair:** If the relationship between a customer and a supplier breaks down to the extent that they cannot sit in the same room, there will be great difficulty in achieving successful completion of the contract. From what I have seen, the contract was a standard shipbuilding contract and the mechanisms for requesting and agreeing changes were built into it. It worked for a period, but it got to a stage where some changes were agreed but not signed off because the relationship had broken down to the extent that, as you said, the parties were unable to sit in the same room. If a supplier is at that stage with a customer, there will be serious difficulty in executing the contract.

**Jamie Greene:** Are you surprised that that did not raise red flags with Transport Scotland, which was supplying the budget for the build, or with Scottish ministers? If the relationship between the two main protagonists had broken down to that extent—that happened many years ago, by the sound of it—surely someone higher up the chain

should have said, “Hold on, I need to intervene here” and put a stop to it.

**The Convener:** In answering that question, it would be helpful if, having identified that there was a problem, you could say when the breakdown of the relationship was first identified by you, or at least when it was clearly identifiable.

**Tim Hair:** I will have to take that question away and write to the committee about the point at which there was a proposed change that was not signed off. I am afraid that I cannot remember the date off the top of my head. I do not want to avoid the question, but CMAL and others might be better placed to answer the question about when the relationship broke down.

**Jamie Greene:** My question was not about the date when it broke down, although that is a valid question, but about my assumption that someone who was in overall charge of either the budget or the project should have intervened and made the two parties sit in a room and work it out. What oversight was there at the level of either Transport Scotland or the Scottish Government? It sounds to me as though there was not enough oversight.

**Tim Hair:** In other roles, the healing of a relationship with a customer has fallen to me as part of a turnaround. I worked in the private sector, where there is a different regime. I understand the question, but I am not really qualified to answer it.

**Michelle Rennie:** As I said, my involvement in the project started in the summer. It was widely known that the relationship between CMAL and FMEL had broken down—that was not a particular secret. Once that emerged, ministers and Transport Scotland sought to engage constructively and get the two parties to engage constructively. As I was not involved, I cannot give any detail on that.

In the present scenario, there is a very constructive relationship between the yard and CMAL, and both parties are working constructively together. The committee will hear from other parties later in the inquiry, and they might be able to say a bit more about that.

**Peter Chapman:** I want to examine some of the other issues that are raised in the programme review board’s report. As has been mentioned, FMEL failed to keep adequate or even basic records such as the bill of materials. Mr Hair, in your opinion, is poor record keeping unique to this project or is it an industry-wide issue?

**Tim Hair:** It is not industry wide. Across the engineering industry, aspects of the project planning process that we have discussed, such as accurate bills of materials and change controls, are commonplace and part of good professional practice.

I would say that the situation is unique to Ferguson but not unique to the two ferries that we are discussing. As you probably know, three other, smaller vessels are in process in the yard, and all the process shortcomings that I have described in relation to the two ferries apply equally to the three smaller vessels, albeit on a smaller scale because they are less complex projects. I would therefore say that we are talking about a Ferguson-specific set of shortcomings that is not commonplace in the rest of the engineering industry.

**Peter Chapman:** In your opinion, are those poor practices down to poor management?

**Tim Hair:** As I said to your colleague, I am reporting the situation that I found. Others will have to answer for the management decisions that created those poor practices.

**Peter Chapman:** Returning to the basic design, I note that the crux of this complete fiasco is the fact that you were trying to build ships without the design being complete. We have heard that it is not complete even now. How did that happen? What action are you taking to ensure that, before you go any further, the design is completed?

**Tim Hair:** Your assessment is correct. The ships were commenced, the steel was cut and things were launched before the design was completed. In effect, the process that we are putting in place—working closely with CMAL, as Michelle Rennie said—involves going through the design process from scratch, completing the basic design and getting the elements of it that need to be signed off by class, flag and owner signed off.

We need to deal with the various observations that have been made about instances in which the physical work does not comply with the design and, once we have solidified the basic design, to restart the design process in a controlled way, providing proper detail. That needs to be done in the right sequence. A point that we have not touched on is that, if the design is correct but the work is done in the wrong sequence, that is as bad as doing it wrongly in the first place. We are settling the basic design and putting in place processes to do the detailed design in the right sequence, in a controlled way and with proper design controls so that, when we do physical work on the ships, we know that we are doing the right things in the right way and in the right sequence.

**Peter Chapman:** Does that mean that work is being done on the ships or are you still holding back because you are waiting for the final design? You stressed the importance of doing things in the right sequence. Does that mean that nothing is happening on the ships because you are waiting for the final design?

**Tim Hair:** No. Work is going on, although the overwhelming majority of it is rework. As you will



see when you come to the yard in a few weeks' time, there is an extensive programme of coating repair on 802, which has been going on since October and still has some time to go, and there are repairs to be made on 801. Only a small amount of new work is being done.

**Peter Chapman:** The design has been subcontracted to this Vera Navis company in Portugal. In your opinion, is the wholly ineffective design process down to the management at FMEL or is it down to the subcontractor, Vera Navis, not being up to scratch and being unable to do the work timeously and correctly? Who is to blame for the problems with getting the final design sorted?

**Tim Hair:** To be clear, I note that Vera Navis owns a part of the design process. The design work—the basic design and some of the detailed design—and calculations are done by FMEL, and the output of that process is sent to Vera Navis. In the past, it has had people on site at FMEL. It uses that output to create a three-dimensional model of the vessel so that pipes can be run and engines located in three dimensions. The output of that process is returned to FMEL to be turned into work packages for the shipyard to build.

Although there are things that Vera Navis could have done better, my view is that the design process in front of, behind and on either side of the Vera Navis process was not properly controlled. In particular, I would expect that, when work is done with a design contractor, there will be controls around the information that is provided to it so that I can be sure that it is correct, and I would expect there to be a check on what comes back from it so that I can be sure that it complies with what was originally provided. Neither of those control points was in place with regard to Vera Navis. It was a perfect “garbage in, garbage out” situation.

Vera Navis might have done some things better, but it was sitting in the middle of an overall design and engineering control process that was badly flawed and needed to be upgraded.

**Emma Harper (South Scotland) (SNP):** It has been interesting to hear the responses so far.

Project management and planning have been discussed, and the report says that project planning and controls were “inadequate”. Did the contract with CMAL specify the use of such systems? If not, why not? Did CMAL try to enforce the use of such systems in the design-and-build contract? Why is there no oversight with regard to that sort of approach?

**Tim Hair:** The contract is a standard Baltic and International Maritime Council contract. To put the jargon aside, a standardised contract is used throughout the world with regard to shipbuilding and ship repair—BIMCO is the jargon term for it.

The intention is that that standard contract is internationally recognised by all parties in the shipping industry.

The contractor does not specify the project planning and management, the bill of materials or the other things that we have spoken about, because, frankly, the standard contract assumes that those engineering practices are things that shipyards would normally have in place in order to execute the contract and that, therefore, it is not necessary to specify them.

**Emma Harper:** So are the Gantt charts, project management and project planning that Stewart Stevenson described normally just a given as part of the shipbuilding process? Is it assumed that they should not be in the contract?

**Tim Hair:** Yes; it is assumed that those are part of the normal process and, therefore, do not need to be specified in the contract.

11:30

**Emma Harper:** More generally, did the review board investigate the role and responsibilities of CMAL and how they were exercised with regard to contract oversight? Your report does not cover that—should it have been in the report?

**Tim Hair:** That would be a review board question.

**Michelle Rennie:** The remit of the review board was focused on the programme and the cost of delivering the two vessels. We did not look backwards at all at the roles and responsibilities of the various parties that were involved in getting to that point.

**Emma Harper:** My final question is for Alex Logan. The report highlighted that work had been undertaken out of sequence, and Tim Hair has mentioned redoing work, or reworking, which will affect the cost. Could you give some examples of the work that is having to be redone, so that we can be clearer about it?

**Tim Hair:** May I answer first? It might be helpful.

**Alex Logan:** On you go.

**Tim Hair:** I have a couple of quite high-profile examples. The report talks about Axilock couplings at some length. It is a very technical issue that would be much easier to explain if one was in front of us. Axilocks are a coupling mechanism for joining pieces of pipe. The contract specifically excluded them from being used in all but a narrowly defined set of circumstances. They are in the report because they were used extensively throughout the ship without CMAL's agreement. It was a major problem at the time. In collaboration with CMAL, we have agreed a pragmatic solution, but it is likely to mean that

almost every piece of pipework in the engine room will have to be removed—in order to rework the couplings where we have agreed they have to be changed—and then put back, because of the amount of piping in the vessels and its multilayered nature. Members will see it when they visit, if they go into the engine room. It will be a major undertaking.

At the other end of the rework scale, the front of the ship has a projecting part under the water, which is known as a bulbous bow and is essential to the efficient performance of the vessel. The bulbous bow for the Glen Sannox does not meet the specification. It was not approved as meeting the specification before the launch and, among other things to be done on the Glen Sannox, the vessel will need to be taken out of the water and have the first 6 feet of its bow cut off and replaced.

**The Convener:** In fairness, the committee members who visited saw the two designs for the bulbous bow—the one that was fitted and one that was not—and we were told at that stage that no decision had been made on which was the right one. Maybe we will be enlightened in due course. Would Alex Logan like to come in now?

**Alex Logan:** As Tim Hair said, the paintwork has now been upgraded. The weather in Port Glasgow means that we could all get webbed feet, as Jamie Greene probably knows. It does nothing but rain, and things deteriorated.

Back in the days of British Shipbuilders, if a weld had been welded, we used to inspect and clean it up and a holding coat of paint was put on, which was good for six months to stop the rust. Unfortunately, the process in the yard at that time meant that, whether we did not have enough paint or nobody thought about it, nothing was getting strip coated.

The pieces were just getting built, welded and placed outside in the elements. To go back to what you were saying about the design work, the vessel was being half built, because we did not have the full concept of the design. Unit 26 came up on the build programme that had been set out, but the team did not have the proper information, so they built three quarters of the unit and it lay outside for three or four months until the concept of the design was approved. It would then be shipped back into the shed and reworked. That is another part of the rework that is going on.

As Tim Hair said, it is like building a jigsaw when there are missing parts. You will never complete it. The parts get spread everywhere and you lose control. The materials that have already been burned and cut for the job start to disappear, because they are in a clutter.

**Emma Harper:** You talked about welding a piece and then painting it so that it would be

protected for six months. If that was not happening, I am sure that the workers were aware that it needed to be done and were asking whether they could get the paint and the items that they needed to protect the ship.

**Alex Logan:** That was all highlighted. You will find that CMAL probably stated the same things somewhere in the owner's report. A holding coat of protective paint was supposed to go on to the bare metal and bare welds, but that was never followed through in the process. At the time it was a matter of, "Get it done, and move on."

**The Convener:** There are a huge number of questions on this very important subject. I urge committee members to keep their questions short and focused and I am sure that the panel will respond similarly.

**Angus MacDonald:** I get the message.

**The Convener:** My comment was not directed at you.

**Angus MacDonald:** There are clearly issues concerning the vessel's current condition. The report identifies degradation of the two vessels, mainly due to water ingress. Other issues include inadequate protection of equipment from the elements and poor housekeeping. Another example in the report highlights the significant number of pipes that were made but not fitted and now cannot be found or are obsolete. The report says:

"There is a lack of stock control with pipes located at various places in the yard".

What will be the impact on cost and delivery of the vessels of making good those issues? What is currently being done to address the stock control issues?

**Tim Hair:** The impact on cost and delivery is included in the numbers in the timetables in the report, as well as the actions to get them under control. We are cleaning up the yard. There are a huge number of pipes in these ferries. They are complex vessels. The pipes are being sorted and the ones that are no longer usable have been scrapped. The other, usable, ones have been identified. A significant amount of pipe work will have to be scrapped. If you make a change in the structure of a vessel or the location of a pump, the pipes no longer fit and you have to throw them away and start again.

All the processes concerned with design control planning and sequencing of work that we have spoken about will have an impact on the control of cost and delivery. On stock control, there are four warehouses half a mile away where inventory is stored in conditions that are not great and where the inventory records are not as reliable as I would want them to be. We are about to start a process

in which we will relocate the inventory closer to the yard, check the specification, verify the inventory that we have and put better inventory controls in place.

**Angus MacDonald:** Alex Logan, did members of the workforce raise their concerns with management when all of the stock control issues were taking place, or had you already given up raising concerns with them by that point?

**Alex Logan:** We raised our concerns on the build programme. The issue of stock control and what it was based on was outwith our remit. That was done by management, which had procurement officers to order stock. We did not have anything to do with that as a workforce. We just highlighted the issues that we could see as professional and long-term shipyard workers.

**Angus MacDonald:** As the guys on the ground, had you noticed difficulties with regards to stock control?

**Alex Logan:** Yes. We had given up, because the new management changed the whole structure of the yard—the flow in the yard—when they came in. The steel stock used to be brought in on the back of a lorry, taken off by a magnetic crane, stored and then processed on a burning machine. When the new company took over, the whole flow of the yard was reversed. It brought in a new burning machine and put it on the opposite side of the yard, where we had no magnetic crane. Instead of a magnetic crane, they used a big suction machine and unloading a lorry took one craneman and four or five personnel about four or five hours instead of the 20 minutes that it used to take.

That all added to the cost of the steel stock. You had about 30 plates of 8mm each: to get the specific one you wanted, you had to go through them plate by plate, which would maybe take four people seven or eight hours to do. It completely ruined the flow of the yard. That was highlighted at the time. I think that there are plans to move everything back to what it was originally, if we get time to do that.

**Angus MacDonald:** Thank you for that example.

**Colin Smyth:** I would like to follow up on the programme review board report, and the identification of the degradation of the two vessels. The report says that the MV Glen Sannox will need to be docked for external inspection. What do you expect will be found as a result of that inspection and what could the worst-case scenario be?

**Tim Hair:** The ship has been in the water for two years and there has been some protection around it. Fundamentally, paintwork systems on

ships are designed to prevent marine growth while the ship is moving—that is how the coating is designed. We expect to find significant amounts of marine growth on the bottom of the ship. That will have to be blasted off, and the bottom will have to be re-coated. We will have to inspect the areas where sea water goes in and out of the ship—the ship-side valves, to use the jargon. I have spoken about the bulbous bow, and we will also inspect the propellers. Basically, we will inspect everything that is under the water.

We expect to find marine growth and to have to do some remedial work on the ship-side valves. We do not expect to find anything catastrophic, but we have chosen not to put divers under the vessel to see what is there. We have no reason to believe that there will be anything catastrophic, but we will not know that for certain until the ship is out of the water in a dry dock.

**Colin Smyth:** It is possible that finding something “catastrophic”, in your words, could add cost and delay. Has that potential additional cost or delay been built into your figure of £95 million to £99 million?

**Tim Hair:** The reason for that range on cost and on time is that we have put contingencies in place for handling the risks. The chances of finding something catastrophic when we put the MV Glen Sannox in dry dock are low. The time and the cost estimates show a fair balance of the risks and of the potential for them to occur. It is highly unlikely that we will find something catastrophic. We are confident that we can deliver at the low end in relation to the timeline and the cost point. However, there are some unknowns, and that is why there is a range.

**Colin Smyth:** Stewart Stevenson has kindly asked much of my next question.

**Stewart Stevenson:** Sorry.

**Colin Smyth:** I want to return to the fact that the programme review board report says that

“FMEL does not operate a full defect management system” and that

“the FMEL QC department does not have inspectors for mechanical installation and general outfit.”

We have heard that that is not a normal thing in a shipyard of the size of Ferguson Marine. To go back to the contract, surely CMAL’s due diligence process should have involved checking whether such processes, and the necessary people, were in place before the contract was awarded.

11:45

**Tim Hair:** I would expect any owner placing a contract to do due diligence on all those who are tendering. I cannot comment on what CMAL did to

ensure that the people who were tendering for the contract for the vessels were qualified—it is not something that I have examined.

**Colin Smyth:** But the review board was, in its assessment, able to identify quite quickly that there was not a full defect management system in place and that there were no inspectors in place for mechanical engineering. Would CMAL not also have been able to identify those things when it was awarding the contract?

**Tim Hair:** I am sorry—I am not trying to be unhelpful, but I genuinely do not know what the situation was four years ago, and what the due diligence that was carried out involved. I am sorry, but I cannot help you.

**The Convener:** Colin Smyth has raised a fair question, for which CMAL will—I hope—have prepared when it comes to the committee to give evidence.

**Maureen Watt:** The review board's report was written in December. Can you give us an update on how the new management structures and processes are bedding in? Do you feel that you are progressing according to the timetable for progression that has been set out?

**Tim Hair:** Yes. Overall, we are making progress in line with the plan. We are currently very much in remedial mode: fix the ships, fix the business. The planning upgrades are on track. We put a team of specialist planners into the business at the back end of November, just as the report was being finalised, and they are upgrading the planning systems and, in effect, putting in new planning systems along the lines that a member inquired about earlier.

Work on the vessels is being progressed effectively. The programme director—which, as I said earlier, was the first appointment that I made, two weeks after I came to the yard—has led the analysis that sits behind the report, and he is now creating the controls and the project management structure that will allow us to get a proper grip on the project. We have made some changes in the engineering leadership, and we are putting in place the necessary controls to deal with the engineering shortcomings that I described previously. There are other changes in the structure on which I am not currently in a position to comment.

I have also appointed a head of business improvement—that is her job title—who joined us on the first working day in January. Her specific role is to co-ordinate the process improvements that are involved in changing the business.

Fundamentally, I want to separate management of the ferries project from management of the business turnaround. The programme director is

now very focused on management of the ferries bit of the project and the detailed working relationships with CMAL that go along with that, and the head of business improvement will work closely with me as we go through the process changes that will allow us to build a sustainable business on a solid foundation.

**Maureen Watt:** I got the impression from your answer to a previous question that you have taken in-house the detailed design work that is required for the ferries. Is that correct?

**Tim Hair:** The detailed design work was always in-house; it is currently being completed and signed off. Responsibility for it has always rested with Ferguson Marine. We are now actually doing that work, and doing it in the right order.

**Maureen Watt:** Does that mean that you have employed naval architects, or have you subcontracted the work to another company?

**Tim Hair:** We have employed more naval architects and marine engineers. In the report, I refer to the challenge of getting the right engineering process and the right control and support from third parties. We are looking to work with specialist designers from third parties in order to “man up” Ferguson's. That was the wrong phrase to use, especially as some of our best draftspeople are female, so I apologise. The committee might have noticed that one of them won the Queen's silver medal for the best shipping industry apprentice of last year, so I apologise to her.

In order to increase the resources in the drawing office and the design office at the necessary speed to get the job done, we will have to work with a third party. We are finalising our plans for exactly how to do that.

**Maureen Watt:** The yard had on-going projects other than the two ferries. Is work still being done on those projects? Alex Logan said that the contract welders come in at 6.30. Are they working on the other stuff in the yard or on the ferries? Can you give me a sense of all the work that is happening in the yard and whether other work will affect the timescales and budgeting for the ferries?

**The Convener:** I know that that is an important question, but I ask Tim Hair to be brief.

**Tim Hair:** Of course. There are three other vessels in the yard. One is approaching completion and will be gone by the time members get to visit. The balance of the timetable means that there is no conflict between finishing work on those vessels and progressing work on 801 and 802. We have fixed the vessels' design, we will finish the small ones and then we will move the labour across to the ferries when we are ready to

do good new work on them. Broadly, that is the sequencing.

**Jamie Greene:** The document that is in front of me estimates that the work could cost a maximum of £115 million. I appreciate that there are a range of figures and that contingencies have been built in. Why was the decision made to spend more to finish what we already have, rather than to deliver what we should have delivered with the original budget? Why can you not start afresh with a blank piece of paper and a pencil, and build two ships with £97 million, as was in the original contract?

**Tim Hair:** Are you asking why we did not, in effect, scrap what has been done and start again from scratch?

**Jamie Greene:** Yes. Why are you doing what you are electing to do, which is the remedial work and the backtracking? As Mr Chapman said, you are spending more than was originally budgeted for the two ferries on finishing the two ferries that we already have. Logically, that does not make any sense, so maybe you could enlighten us.

**Tim Hair:** The decision to complete the vessels rather than scrap them was driven largely by the timescale that would be required for scrapping them. We would also still have to do all the process improvement work in relation to fixing the business and all the design work. We would be scrapping vessels that are not without value and, certainly, not without time. Perhaps the best illustration is 802, which is the one that is on the berth. Its paint is a bit ropery, but we can fix that, and the rest of the vessel is okay and can be brought back into action in a reasonably controlled and prompt way. If we wanted to scrap the vessels and start again from scratch, it would take at least a year to get back to where we are now.

**Jamie Greene:** That is based on the assumption that we would build these two ships. What if the Government decided to build two ships, but not these two ships?

A lot of the evidence that we have received from stakeholders concerns the fact that communities have been left with no ferries. The real issue is how we might put in place a pipeline that will allow us to build vessels indigenously, but also replace ageing ferries in the CalMac fleet. That is what should lie at the heart of all this. Why are we still pursuing the avenue of building ships that have clearly had difficulties in their design and manufacture? In the interests of island communities that need ferries, should we not simply go back to the drawing board? Within the original £97 million budget we could build two reliable vessels that would meet their needs, rather than spending £100 million on the current design that is clearly causing difficulties.

**Tim Hair:** My remit is—by whatever means—to deliver vessels according to the contract that CMAL has placed with Ferguson. I cannot comment on whether that contract should be changed or the requirements for the vessels varied.

**Jamie Greene:** So, you do not have a view on that suggestion.

**Tim Hair:** I am afraid that I do not. I do not know enough about Scottish ferry services to be able to comment.

**The Convener:** In fairness, I suggest that that is probably a question to put to CMAL when it comes before the committee. We could ask it about the decision on whether to plough on or to review. I might ask Jamie Greene to park that until we come back to it.

I think that John Finnie has questions.

**John Finnie:** I have, but first I might give a little bit of background. I refer to the part of the review board's report that covers performance penalties. The report notes that the ships are liable to exceed the contracted weight and to be slightly slower than the contracted speed. In addition, their fuel consumption has been changed via a contract amendment. So, as a consequence of the contract being amended, potential penalties have been avoided.

Will you comment on the environmental impact of that change and what it will mean for operation of the ferries? Perhaps you could also give an outline of what the penalties would have been had the amendment not been agreed.

**Tim Hair:** The amendment that you are referring to is really just a contractual note rather than a physical change to the vessel's specifications, and it was made in 2016. It reflected the fact that the fuel consumption that was originally stated in the contract was defined solely by the performance of the engines rather than by that of the whole vessel. It was also based on the performance of the engines that had been specified by CMAL at the time of placing the contract. That contractual amendment was required because there was a change to the supplier's specification for the engines, which changed their fuel efficiency. Therefore, you are referring to a purely contractual matter that was caused by the fact that the engine design had moved on. The contract had to be amended to reflect what was actually available.

The overall fuel efficiency of the vessels relates not just to the engines, which is what that point in the report referred to. It also relates to the gearboxes, the shaft generators, the efficiency of the propellers in how they interact with the hull, the length of the vessel, the design of the stern, and various other factors. Fuel efficiency is much

broader than the narrow contractual point relating to the engine specification.

**John Finnie:** As my committee colleagues will know, I am not remotely technical. What does that mean in terms of miles per gallon or whatever else we might equate it to? It seems that the vessels' contracted speed is slower and their contracted weight has increased. We are being told that we must consider all available options because we have a climate emergency. What will that change mean for those vessels' efficiency? Will they be less efficient?

**Tim Hair:** As I have said, that point is a narrow contractual point that relates to the engines themselves. The efficiency of the ships is based on tank tests and various other things. I have not looked at how the engines compare with what CMAL originally intended. I will look at that and I will write to the committee to provide clarification.

**John Finnie:** Thank you. That is helpful.

**Tim Hair:** I will answer the rest of your question. The maximum contractual penalty with regard to fuel consumption is £25,000.

12:00

**John Finnie:** Thank you.

**The Convener:** That does not seem like much.

**Emma Harper:** I will keep my questions short.

The report mentions challenges of

"The re-energising of a demoralised workforce and the improvement of productivity"

and other challenges. What is being done to improve the morale of the workforce? I am sure that the workers are aware of what is going on; they need to be considered and supported and, as the experts on the ground, thanked for their input. You said that you are confident that future planning will be robust enough. Can you confirm that?

**Tim Hair:** Sure. Alex Logan will have something to add, which the committee will want to hear.

At the time of the company going into administration, the workforce had an extremely difficult time. The workers thought that they were about to lose their jobs. If the administration had proceeded in a different way, they would have done. Rebuilding workforce engagement and confidence in the future is an important task in any turnaround. As we have gone through the administration process, I have tried to be as open as possible with the workforce. Periodically, we have held all-hands briefings, so that the workforce finds out about changes in management before they are announced to the press.

With regard to the union, the situation is a bit ad hoc, because there is a lot going on, but Alex Logan and I have regular conversations. In a turnaround, it is extremely important to give the employees a clear idea of what is going on and to tell them what is important. In order to do that, in the first week of January, rather than trying to address 300-odd workers in the yard, I ran a series of briefings with small groups of roughly 30 people in 11 sessions, which covered every employee in the business, including the night shift. The sessions set out how far the business had come since the administration, what was important for 2020, and what we would be focusing on. There was also an opportunity for feedback. To be honest, because of time constraints, there was less opportunity for feedback than we wanted, so we are following up on that in order to provide better opportunities for feedback in the future. I am trying to engage openly and positively with the workforce in a two-way process.

I am aware of the need for brevity, but this is a critical point, so perhaps the convener can indulge me. As part of the Transfer of Undertakings (Protection of Employment) Regulations process, we created a works council. It is not just an hourly-paid-staff consultative body, in which the union is the route, but a broader consultative body that relates to all the employees. We will maintain that as a way of providing a better communication link between management and the shop floor. I will shut up now.

**Alex Logan:** I will add to what Tim Hair has said. When he took over as the turnaround director, one of the first questions that John McMonagle—my trade union colleague—and I asked him was whether he was going to make inroads into putting temporary workers on full-time contracts. In the previous business, workers had been temporary workers for four consecutive years or more: they had been working in the yard for four years but were always on temporary rolling three-month contracts. Not being on rolling contracts gives them a bit of stability. The first thing that Tim did was ensure that the company put workers with four years' service on to permanent contracts. Workers with two years' service are now being considered and are next in line to be made permanent. There are criteria to meet, but if they meet all the requirements, they will be made into permanent workers.

Going forward, there will be times when we will have to have temporary workers, because there will be peaks and troughs, but we are trying to build up the core workforce. To be fair, Tim Hair has come and delivered what he promised us on the first day. That is a positive thing that has lifted the community's spirits a wee bit.

Over the year, the apprenticeship scheme has also been going well. Last year, we did not have anyone in it, but this year we are moving on that and it will be an important part of the company, going forward. Our community and the shipbuilding industry both have an ageing workforce, so we need to encourage young people to come into the industry and to see a future in it.

**Emma Harper:** To be clear, are we talking about 300 employee jobs that have now been protected?

**Alex Logan:** Yes.

**Tim Hair:** I can give you more specific figures: the number on the day of administration was 285 employee jobs. As of last Monday, that has increased to 333, so we are adding to employment.

**The Convener:** I have allowed that observation and comment. The next question is from Stuart McMillan.

**Stuart McMillan (Greenock and Inverclyde) (SNP):** My question is probably more directed towards Alex Logan, but I am quite keen for any of the three panellists to answer it. There was a huge amount of fear in 2014 when the yard went into liquidation, before it was saved. When the contract for these two ships was awarded, what work was the yard undertaking? How important was that contract for the yard, the workforce and the community?

**Alex Logan:** The work that we had on at that time was the third hybrid ferry—the container—the contract for which had been awarded just after Mr McColl acquired the business. That was to get us back on our feet and started again. Probably about halfway through that contract, the announcements were made about the two big ferries that we are currently working on. That gave everybody a boost, because Jim McColl told us to go home and tell our families that our jobs were safe and that, with those two contracts, we would be here for a long time.

Over the following years, we could see that we were getting back into a bad situation. I have highlighted that the Scottish Trades Union Congress asked for a meeting with the First Minister because it had information from the management team that, if something was not sorted out between CMAL, the Government and FMEL, 250 jobs were at risk. I had a meeting with the First Minister, who in turn passed the matter on to Derek Mackay. I managed to get a conversation with the Government, and the company moved forward with a promise from the Government to work together and to try and get CMAL to the table. That meeting did not materialise.

We then found ourselves again in the unfortunate situation of knowing that we were going back into administration. Mr Mackay met with the trade union officials and offered us public ownership by the Scottish Government. As a trade union, we were reluctant to go down that route, as we had already been there before, and it was not until the final meeting that I think we had in Glasgow with Stuart McMillan and others that we realised that the only way forward for us as a trade union to protect our workforce was to accept the Government's offer of public ownership for the yard. As a trade union, we fully backed where we went from there.

**Stuart McMillan:** Are you saying that there was nothing else on the order books when the contract for these two ships was awarded to Ferguson Marine?

**Alex Logan:** Not that I am aware of.

**Stuart McMillan:** So this order was crucial for the future of the company.

**Alex Logan:** Yes, it was crucial. The company was gearing up to try and get work from the Ministry of Defence—we were installing security cameras and fences and were trying to get up to the standards that we needed to apply for that work. Unfortunately, everything that was promised to us went elsewhere—to Rosyth—and I do not think that, under procurement rules, we are now capable of bidding for a contract.

**Stuart McMillan:** Tim Hair referred to the yard's "processes and controls" in his opening statement and his report is clear about the inadequacy of the controls. How crucial is it for the effective operation of any type of work that those controls, and the management of those controls, are in place?

**Tim Hair:** If the processes that we have spoken about—planning, project management, building and material control and supply chain control—are not functioning or are absent, it is almost impossible to complete a complex engineering project.

**Jamie Greene:** I presume that the original contract in 2014 was awarded through a regular tender process and not through any other means. Is that correct?

On the point about public ownership—I am sure that there will be questions for other panels on this—it would have been in the hands of the administrators; it would not have been a direct agreement between the Government and the yard, or, indeed, the workforce. Will you confirm that that was the process that was followed?

**Tim Hair:** I believe that there was a tendering process. I am sure that CMAL will be able to respond on that in detail.

As far as the process with the administrators is concerned, the administrators' responsibility was to explore the best outcome. That certainly included exploring all the commercial options that were available to them. There was a fallback agreement with the Government, which was that, if a commercial option could not be found, the Government would step in. The administrators comprehensively looked for other options, which is one of the reasons why it took from 16 August to 2 December 2019 to complete the transaction.

**The Convener:** I am particularly interested in the process and procurement side of things, although I understand that there are other aspects.

I think that the announcement on the preferred bidder for the ferries was made by the First Minister on 31 August 2015. Is Hyundai a big shipbuilder in South Korea? Does it turn out lots of ships?

**Tim Hair:** Yes, I think, in response to both questions.

**The Convener:** If the contract had been awarded on 31 August 2015 to Hyundai and it had a time slot in its programme, would it have been able to build the ferries in under five years?

**Tim Hair:** Yes, I think that it is reasonable to say that it would.

**The Convener:** Would you have absolute confidence in the company having in place the management procedures to get round the issues with stock items, queries and all the points that you have raised this morning about management?

**Tim Hair:** Hyundai is a very capable globally competitive shipyard, so I think that it is reasonable to assume that the answer is yes.

**The Convener:** What happens if the turnaround company does not meet the spec that CMAL has laid down? Is CMAL able to change the original spec now?

**Tim Hair:** Clearly, the intention is to deliver the specification as contracted. We are formalising a process by which, if there are disagreements about the specification or the ability to deliver it, we can deal with those, but the—

**The Convener:** Is that process more streamlined than it was in the past? When we went to the shipyard, we were told that CMAL still had 600 outstanding queries to answer. Have you streamlined the process so that it could never again get to the stage whereby there are 600 outstanding queries or there are non-responses from CMAL on design issues?

**Tim Hair:** Yes, absolutely. In order to get to the stage that we have reached, we have routinely had conversations at a very detailed level with CMAL and, on occasion, with CalMac Ferries,

because of the implications for the end user. I agree that that the process needs to be formalised—

**The Convener:** It speeds things up.

**Tim Hair:** It is certainly streamlined and working effectively.

12:15

**The Convener:** I understand that some of the management-level employees of the previous company remain in employment. There are rumours that some of them have been asked to sign non-disclosure agreements. Are you aware that any such agreements have been signed by people who continue to be employed by the Government?

**Tim Hair:** I am not aware of any non-disclosure agreements signed by people who report to me who remain in employment in the organisation.

**The Convener:** I am not suggesting by any means that there are any such people, but I ask you to review that and then write to the committee and confirm whether it is correct.

**Tim Hair:** Yes, I would be happy to do so, but I expect that my answer that there are no NDAs signed by current employees will be correct.

**The Convener:** Let us imagine that I am in your position and designing a ferry. Should the design of that ferry be dictated by the infrastructure in which it will operate? Would you design a ferry that was too big to get into a port or that was not capable of docking in a port in significant weather conditions, which might or might not occur in that port?

**Tim Hair:** I am designing a ferry to meet the contracted specification by its user.

**The Convener:** Perfect—thank you. I will leave that question hanging. I thank the witnesses for coming in and giving evidence this morning. It has been very interesting and extremely enlightening. I am sure that it will help to inform the rest of our discussions.

I briefly suspend the committee to allow the witnesses to depart.

12:17

*Meeting suspended.*



12:21

*On resuming—*

## Petition

### Salmon Farms (Closed Containment) (PE1715)

**The Convener:** Item 2 is consideration of a public petition. PE1715, which was brought by Mark Carter on behalf of Marine Concern, concerns closed containment in salmon farms in Scotland.

The committee has received responses to its request for information about research and other work that the aquaculture industry in Scotland is doing on closed containment, from the Scottish Salmon Producers Organisation and the Scottish Aquaculture Innovation Centre. The petitioner has submitted additional comments. Do members have comments or questions on the information that we have received?

**John Finnie:** It has been helpful to get responses from the Scottish Aquaculture Innovation Centre and the producers, as well as representations from the petitioner and others.

Many submissions referenced the committee's report on salmon farming in Scotland and the work of our sister committee, the Environment, Climate Change and Land Reform Committee, on the issue. I should not pre-empt members' views on what we want to do about the committee reports, but I think that at some point we will want to revisit our findings.

It is interesting that the SSPO said that closed containment equipment is being trialled in Norway and Canada and went on to say:

"The permitting regime in Scotland does not currently allow for the trialling or piloting of such innovations".

I would be keen to hear from the Scottish Environment Protection Agency about that. It would be helpful to our deliberations if we understood SEPA's position.

I took the opportunity, via the Scottish Parliament information centre—and this information is available from SPICe—to ask the Scottish Aquaculture Research Forum whether it has done work on closed containment. SARF referred to some practical uses and said:

"SARF has not specifically commissioned research into the economics of closed containment aquaculture—whether recirculation or other systems on land, or fully enclosed pens at sea".

It went on to say:

"it is high time we had some high-quality peer-reviewed research in Scotland on this subject. Unfortunately that will not be through the vehicle of SARF, which will shortly be

winding-up due to lack of funding, after 15 years of delivery of relevant applied science in aquaculture",

which is disappointing.

SARF, too, referred to research in Canada. It would be good if the committee agreed to get information from SEPA, ideally through oral evidence to the committee rather than in writing. We should keep the petition open so that we can make a fully informed decision about the petitioner's wishes.

**The Convener:** Before I bring in Angus MacDonald, I should say that, when we discuss aquaculture in Scotland, I always declare that I have an interest in a wild salmon fishery. I do not think that there is any conflict of interest in this context.

**Angus MacDonald:** It is clear that there are differing views on the commercial feasibility of closed containment salmon production. The industry states that recirculating aquaculture systems are

"neither technically nor commercially feasible in Scotland at this time."

However, the petitioner, in his latest submission to the committee, states that RAS and other fully contained systems, which can operate inland or at sea, can be cheaper to operate at sea in particular as there are no temperature issues.

From my comparatively limited knowledge of the industry, I am aware that there can be temperature issues even at sea, as was seen last summer. It is clear that—as John Finnie alluded to—Norway, Denmark, Canada, France and Spain are starting to select closed-containment salmon production instead of open-cage systems because they know—to quote the ECCLR Committee's "Report on the environmental impacts of salmon farming"—that

"The status quo is not an option."

We should keep the petition open as part of the committee's follow-up scrutiny work on salmon farming. I agree with John Finnie that we need to hear from SEPA, along with an update from the Scottish Association for Marine Science in Oban.

**Jamie Greene:** I am content for the petition to remain open and for the committee to do what it feels is necessary to take further evidence on the matter. However, I refer members back to the wording of the petition, which calls on us

"to urge the ... Government to ensure that the salmon farming industry solely utilises closed-containment".

To be fair to the petitioner, the committee will at some point need to take a view on whether it agrees or disagrees with the premise of the petition. That should happen during the current session of Parliament.

**The Convener:** I will attempt to summarise what we have agreed. I can confirm that, as John Finnie knows, the committee has agreed, when we have a moment in our busy programme, to look back at our report on our inquiry into aquaculture. That is planned, and I believe that all the parties that were mentioned in the report will be given the option to come back and explain what is being done in the industry.

The committee seems to be of the opinion that, until that process is complete, it is probably worth keeping the petition open, with the reservation that, as Jamie Greene highlighted, there may be an issue with the petition's use of the word "solely". The fact that the petition is still open will allow us, as a committee, to question the interested parties and regulatory bodies when they come back to give evidence.

Have I summarised the position accurately?

**Members** *indicated agreement.*

**The Convener:** Perfect—that is what we will do. We will also write to the petitioner to explain what we are doing.

## Subordinate Legislation

### Plant Health (Import Inspection Fees) (Scotland) Amendment (No 2) Regulations 2019 (SSI 2019/425)

### Sea Fish (Prohibited Methods of Fishing) (Firth of Clyde) Order 2019 (SSI 2019/419)

12:28

**The Convener:** Item 3 is subordinate legislation. It involves the consideration of two negative instruments as detailed on the agenda. No motions to annul have been received. However, a comment has been received regarding the Sea Fish (Prohibited Methods of Fishing) (Firth of Clyde) Order 2019 and the consideration of the future use of dredgers and creels in the area; it has been circulated to the committee. I suggest that we pass that comment on to the Scottish Government so that, when it considers the matter as part of the annual process, it takes into account the points that have been raised. Does any member have any other comments to make?

**John Finnie:** I entirely support your proposal, convener. I wonder whether we could get a response well in advance, given how quickly time moves on, so that, if any issues emerge with regard to dredging in particular, we can consider them prior to our future deliberations on the next occasion that such a statutory instrument appears.

**The Convener:** Indeed—that is incredibly sensible. We will ask the clerks to put it in the diary to ensure that we get a response in due course.

Does the committee agree that it does not wish to make any recommendations in relation to the instruments?

**Members** *indicated agreement.*

**The Convener:** Before we move into private session, I see that Mike Rumbles wants to come in.

**Mike Rumbles:** On the agenda, it does not say that the committee is to move into private session. There may be people listening to or watching the meeting who will be expecting to hear what we have to say.

**The Convener:** Indeed. I would, however, make the point that we agreed at a previous meeting that we would review the evidence in private. I will make sure that, if that is not already on the agenda—I do not have it in front of me now—it will appear there. The private session is purely to enable us to review the evidence that we have heard this morning.

**Mike Rumbles:** I am just making the point that, when we published the agenda—

**The Convener:** I see that the agenda does not say that the item will be taken in private. I will ensure that that is clearer in future. On that basis—

I am sorry—I see that John Finnie wants to come in.

**John Finnie:** Was there another piece of subordinate legislation, on plant health, for us to consider? Did I miss that?

**The Convener:** Sorry—I took the two instruments together.

**John Finnie:** I beg your pardon, convener.

**The Convener:** If you would like me to come back to them individually, I can do so.

For clarity, does the committee agree that we have no recommendations in relation to either of the statutory instruments—instruments plural, as I think I said before?

**Members indicated agreement.**

**The Convener:** On that basis, we now move into private session.

12:30

*Meeting continued in private until 12:53.*



This is the final edition of the *Official Report* of this meeting. It is part of the Scottish Parliament *Official Report* archive and has been sent for legal deposit.

---

Published in Edinburgh by the Scottish Parliamentary Corporate Body, the Scottish Parliament, Edinburgh, EH99 1SP

---

All documents are available on  
the Scottish Parliament website at:

[www.parliament.scot](http://www.parliament.scot)

Information on non-endorsed print suppliers  
is available here:

[www.parliament.scot/documents](http://www.parliament.scot/documents)

For information on the Scottish Parliament contact  
Public Information on:

Telephone: 0131 348 5000

Textphone: 0800 092 7100

Email: [sp.info@parliament.scot](mailto:sp.info@parliament.scot)

---



The Scottish Parliament  
Pàrlamaid na h-Alba