UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:

CAPSIZING/SINKING OF THE GOLDEN

RAY IN THE BRUNSWICK RIVER, * Accident No.: DCA19FM048 GEORGIA, ON SEPTEMBER 8, 2019 *

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Interview of: KWANG SEOB LIM Chief Engineer

Wednesday, September 11, 2019

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1 INTERVIEW 2 My name is David Flaherty. I'm with the MR. FLAHERTY: 3 National Transportation Safety Board. This interview is for the 4 investigation into the Golden Ray marine casualty. 5 September 11, 2019. 6 Sir, could you please state your name? 7 MR. LIM: My name is Lim Kwang Seob. My family name is Lim, 8 and I am chief engineer of Golden Ray. 9 MR. FLAHERTY: Sir, could you please spell your last name? 10 Last name is Lim, L-I-M. MR. LIM: 11 MR. FLAHERTY: Thank you very much, sir. Do I have 12 permission to record this interview for the investigation? 13 MR. LIM: Yes, yes. 14 MR. FLAHERTY: Thank you. 15 Ma'am? 16 MS. KIM: My name is Cho Kim. Last name is Kim, K-I-M. I'm 17 an interpreter for the gentleman. 18 MR. FLAHERTY: All right. Now we'll go around the table. 19 Sir? 2.0 MR. OSSICK: John Ossick, counsel for the witness. O-S-S-I-21 C-K. 22 , U.S. Coast LCDR Lieutenant Commander 23 Guard. 24 MR. WILLETT: Lee Willett, investigator for the Coast Guard. 25 W-I-L-L-E-T-T.

- 1 MR. LEDET: Les Ledet, U.S. Coast Guard investigator. L-E-D-
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- 10 Marshall Islands, maritime administrator.
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- 14 S-E-R.
- 15 MR. GILSENAN: Ryan Gilsenan, counsel for pilots. G-I-L-S-E-
- 16 N-A-N.
- 17 MR. FLAHERTY: Thank you.
- 18 MR. WILLETT: All right.
- 19 (Whereupon, CHO KIM, an interpreter, translated the questions
- 20 and answers for KWANG SEOB LIM as needed.)
- 21 INTERVIEW OF KWANG SEOB LIM
- 22 BY MR. WILLETT:
- 23 Q. Chief, before we talk about the incident, we'd like to get
- 24 your experience and background. So how long have you been
- 25 sailing?

- 1 A. As a sailor, as a seaman, 17 or 18 years.
- 2 Q. As a chief engineer or --
- 3 A. As a chief engineer, 3 -- 6 years. Yeah.
- 4 Q. Seventeen years sailing and chief for 6 years.
- 5 A. Yeah.
- 6 Q. Have you sailed on many car carriers?
- 7 A. Yeah, six or seven.
- 8 Q. Six or seven?
- 9 A. Eight. Eight. More or less.
- 10 Q. Is this your first time sailing on the Golden Ray?
- 11 A. Right. Yeah.
- 12 Q. First time. Comparing the other car carriers you sailed on,
- 13 how was the condition of the Golden Ray?
- 14 A. This is the best ship --
- 15 Q. It is?
- 16 A. -- I've ever experienced. Because the vessel is only 2
- 17 | years. And it was made in Korea and, as you know, the quality of
- 18 vessels in Korea is one of the best in the world. Yeah.
- 19 Q. Okay. So the -- for getting parts that you need --
- 20 A. Pardon?
- 21 Q. If you needed a part for the main engines or any of the pumps
- 22 or anything, was it easy to get it whenever you requested it, that
- 23 you get it quickly?
- 24 A. Really, really no problem.
- 25 Q. Good, good. So you have a lot of experience. What would

- 1 | your typical day be while you're at sea on the Golden Ray?
- 2 A. (Through interpreter) Normally he doesn't face any difficult
- 3 time.
- 4 (In English) But entering or departure, late evening or late
- 5 -- early, sometimes it is very hot, yeah? Because this vessel was
- 6 visited -- Jacksonville?
- 7 Q. Yes.
- 8 A. Um-hum, Brunswick. And entering and departure is very late
- 9 timing. Jacksonville also.
- 10 O. So I think I didn't --
- 11 MR. WILLETT: I don't think he understood the question I
- 12 asked.
- 13 BY MR. WILLETT:
- 14 Q. What would you normally do when you're at sea on the boat?
- 15 A. (Through interpreter) He oversees the engineering part. And
- 16 then, and the crews on day shift.
- 17 Q. Okay. So at night, is the engine room unmanned?
- 18 A. (In English) Yeah, yeah.
- 19 Q. Okay. So on a typical day at sea, at nighttime nobody would
- 20 be in the engine room.
- 21 A. Yeah, yeah.
- 22 Q. So whoever is on watch would have in their stateroom --
- 23 A. Are using, yeah, monitoring system.
- 24 Q. Yeah. So it's in their stateroom, it'll buzz.
- 25 A. Yeah.

- 1 Q. In the last year or so, have there been any incidents, any
- 2 alarms --
- 3 A. Last year?
- 4 Q. Yeah, any major alarms --
- 5 A. Last year?
- 6 Q. In the last 6 months. You got on board in March.
- 7 A. No.
- 8 Q. No? Have you done any maintenance on the main engine?
- 9 A. Yeah. We have preventative maintenance system.
- 10 Q. So what was the last maintenance that you did on the main
- 11 engine?
- 12 A. Actually there is no big job because the vessel is still new.
- 13 O. Still new?
- 14 A. Yeah. We lubricate some injection module or some
- 15 (indiscernible) or something, the other one. There's no big job
- 16 for main engine yet.
- 17 Q. Okay. Have you done any work on the steering system?
- 18 A. No.
- 19 O. No? Since March?
- 20 A. No. We cleaned our strainer.
- 21 Q. When did you do that?
- 22 A. I can't give you --
- 23 Q. You don't remember? That's fine. That's fine. Let me see.
- 24 Are you familiar with the ballast system?
- 25 A. Actually the ballast system is the job of chief officer.

- 1 Q. But are the pumps --
- 2 A. Pump is my job, engine job part.
- 3 (Interpreter clarifies)
- 4 INTERPRETER: He said the chief officers have the
- 5 responsibility to ballast in and out.
- 6 BY MR. WILLETT:
- 7 \mathbb{Q} . But the motor, the pumps would be --
- 8 A. (In English) Yeah, yeah, yeah.
- 9 Q. Have you had to do any work --
- 10 A. No, no, no. We don't -- not yet.
- 11 Q. On departure from Brunswick, you -- there were four people in
- 12 | the engine room, correct?
- 13 A. Accident? When the accident --
- 14 Q. Yes, yes. Four?
- 15 A. Yeah, yeah, yeah. Four.
- 16 Q. So was that normal, on a departure, you would have one in
- 17 | engine control room, and then one at the local control for the
- 18 main engine?
- 19 A. (Through interpreter) That time they stand by, the four of
- 20 the crew working, yeah, they --
- 21 O. Yes.
- 22 A. (In English) Including me.
- 23 INTERPRETER: Including him.
- MR. LIM: Third engineer is in engine control room for
- 25 standby. And then somebody -- some engineer take a look around,

- 1 take a patrol, and somebody see the monitor in the control room.
- 2 BY MR. WILLETT:
- 3 Q. Okay. So the four that were in there, what would they
- 4 | normally be doing on the departure? The four engineers that were
- 5 | in the engine room, you said one would be watching the monitors --
- 6 A. Um-hum, monitoring. Just monitoring.
- 7 Q. And then one would be patrolling?
- 8 A. Sometimes two or sometimes three.
- 9 Q. Would patrol?
- 10 A. Yeah.
- 11 Q. Is there anybody at local control on the -- at the -- you
- 12 know on the flat where you can control the engine?
- 13 A. Yeah. We can control the engine, at engine was inside.
- 14 Q. So was somebody there --
- 15 A. No, no, no.
- 16 Q. Okay, okay. So you would have one that would always be
- 17 | watching the engine monitor.
- 18 A. At the time of standby, third engineer was in the control
- 19 room.
- 20 Q. Only one or --
- 21 A. Hum?
- 22 Q. One?
- 23 A. Normally every engineer is in the control room.
- 24 Q. Oh, okay. Okay.
- 25 A. Every one is in the control room. From time to time, one or

- 1 | two or three engineers is going to patrol.
- 2 Q. So I guess you're aware they found one of your engineers in
- 3 the control room and three were in back by the shaft alley.
- 4 A. When the accident happen?
- 5 Q. Yes.
- 6 A. I met him yesterday --
- 7 (Through interpreter) Okay. So yesterday, when he spoke
- 8 with his crew, that two person was in the control room and two
- 9 was --
- 10 (In English) Outside already.
- 11 (Through interpreter) -- outside.
- 12 Q. Doing a patrol?
- 13 A. (In English) Yeah, yeah.
- 14 (Through interpreter) Okay, the second engineer was trying
- 15 | to, at the time of the -- when the ship was leaning, trying to
- 16 escaping from the ship. And the first officer -- first engineer,
- 17 he was passed out.
- 18 Q. Oh, okay.
- 19 A. (Through interpreter) And by the time when he wake up, he was
- 20 | not be able to get back into the control room because the water
- 21 was already filling up. So there was -- that's how he got
- 22 separated from the rest of them. And he has not seen it, but it
- 23 was heard from the other crews.
- 24 Q. Yeah, we'll talk, we'll talk with them too.
- Is there normally four or three? Because one was a cadet.

- 1 | So normally on a standby, you would have three in the engine room?
- 2 A. (In English) Normally, including me --
- 3 (Through interpreter) When all things, it's -- they called
- 4 all to be -- everybody be in the control room, and including
- 5 himself. So five will be on the duty.
- 6 \mathbb{Q} . So he was not in the control room because --
- 7 A. (In English) Yeah, yeah.
- 8 (Crosstalk/background conversation.)
- 9 MR. LIM: (Through interpreter) Because normally with a short
- 10 stand by, he'll be present with the rest of the crew. But this
- 11 was like 2 hours that they stand by. And they are in front of the
- 12 boat, of the ship, they call the forecast [sic].
- 13 (In English) Forecastle.
- 14 INTERPRETER: Forecastle.
- 15 BY MR. WILLETT:
- 16 Q. Forecastle. Yep.
- 17 A. (Through interpreter) And then he was in the back of it. And
- 18 they were -- all the time, they was be able to communicate through
- 19 the radio. And then finally, when the captain ordered the
- 20 dismissal, then everybody go to their quarters.
- 21 (In English) Then I go to --
- 22 (Through interpreter) Then he went up to his quarters.
- 23 Q. Okay. So at the time of departure, as far as you're aware,
- 24 was all the machinery, all the equipment was in good order?
- 25 A. (In English) If there is some trouble or some abnormal

- 1 condition, I cannot leave.
- 2 Q. Okay. So in your stateroom, do you have the control --
- 3 A. Yeah. Not control. Monitoring, monitoring.
- 4 Q. Monitor.
- 5 A. Yeah.
- 6 Q. So at the time, were you awake when the vessel started to
- 7 list?
- 8 A. Yeah, yeah. The alarms are continuous sounding. Alarm is
- 9 continuous sounding.
- 10 Q. So prior to -- did an alarm, did you see an alarm or hear an
- 11 | alarm prior to the list?
- 12 A. (Through interpreter) Yeah, then when the accident happened,
- 13 | 10 minutes after, he was -- after he was in his quarters, so he
- 14 was not sleeping. He was awake.
- 15 \mathbb{Q} . So did he see an alarm 10 minutes prior to the accident?
- 16 A. They went -- the boat was leaning, listing over, and that's
- 17 when the alarm start up.
- 18 Q. Okay, okay.
- 19 Q. So his generators, I guess, went dark?
- 20 A. (In English) Yeah.
- 21 Q. And they could only operate at, what, 15 or 20 degrees?
- 22 A. I don't know exactly, but --
- 23 (Through interpreter) It's a possibility they can be operated
- 24 at 30 degrees.
- 25 Q. 30 degrees. Okay

- 1 A. (In English) More than 30 degrees.
- 2 Q. More than 30?
- 3 A. Yeah. Because the vessel handle a little (indiscernible) the
- 4 vessel moving more than 30 degrees.
- 5 Q. Okay.
- 6 A. Yeah. But very short time.
- 7 Q. So the emergency generator, when you lose power, how long
- 8 does it normally take for the emergency generator to --
- 9 A. According to service rule, it should be started in 45 minutes
- 10 -- 45 seconds. But it was starting maybe 30 seconds later, and
- 11 generator was shut down. And when generator was run after 20 or
- 12 | 30 seconds, and then it operated 10 more seconds, and then it
- 13 break up also.
- 14 Q. Because of the --
- 15 A. Yeah, yeah. So I --
- 16 (Through interpreter) He recognized that this was a serious
- 17 problem after the emergency generator did not operate. That's
- 18 when he recognized there was a serious problem there.
- 19 The emergency -- the generator would have revived, and he
- 20 | would have recognized that this is not a serious problem. When
- 21 | the emergency generator did not revive, then it was -- they
- 22 blacked out, and then he was -- he feeling that he's facing a
- 23 serious problem.
- Q. Are you aware of the setup on the bridge with batteries? Do
- 25 you maintain the batteries for the radios?

- 1 A. (In English) Yeah, yeah. Always. Yeah, always. We have
- 2 | checklist. Every 7 days, we check the condition of battery,
- 3 | emergency (indiscernible), and we record it.
- 4 Q. So does he know if the radios, the nav lights, all the
- 5 emergency items on the bridge, are they powered by batteries?
- 6 A. Yeah, yeah, yeah.
- 7 Q. So the batteries -- it seems like everything went dead on the
- 8 bridge. Are the batteries, are they secured in a separate room?
- 9 A. Yeah.
- 10 Q. Do you --
- 11 A. We have a separated battery room in the back of bridge.
- 12 Q. Okay. And it sounded like everybody said when it got to a
- 13 certain role, that everything went out on the bridge.
- 14 A. I don't know.
- 15 Q. You don't know. Okay.
- 16 A. I'm not in the bridge. Yeah.
- 17 Q. Okay. Yeah, that's fine.
- 18 MR. WILLETT: I think I'm --
- 19 MR. LEDET: I have no questions right now.
- 20 BY MS. BELL:
- 21 Q. Just one question. If there is a problem in the engine room
- 22 | when you're not in there, how do you get notified?
- 23 A. Sometimes radio or sometimes telephone. We have some power
- 24 telephone, and we have alternate telephone. And we -- I always
- 25 turn on the radio.

- 1 Q. Okay. And do you have video that -- you said you have
- 2 monitors in your room?
- 3 A. Small monitor --
- 4 UNIDENTIFIED SPEAKER: It's not a monitor like -- it's like a
- 5 panel, but it has --
- 6 MR. LIM: Yeah, small monitoring system.
- 7 BY MS. BELL:
- 8 Q. Okay. Are there videos --
- 9 A. Video?
- 10 Q. CCTV.
- 11 UNIDENTIFIED SPEAKER: Yeah. CCTV.
- MR. LIM: No, no. In my cabin, there is no CCTV. On the
- 13 | bridge there are --
- 14 BY MS. BELL:
- 15 Q. On the bridge?
- 16 A. Yes.
- 17 Q. Okay.
- 18 A. CCTV.
- 19 MS. BELL: Okay. That's all the questions I have. Thank
- 20 you.
- 21 MR. FLAHERTY: Chief, how are you doing?
- MR. LIM: Hmm?
- MR. FLAHERTY: How are you doing, sir?
- MR. LIM: (Indiscernible).
- BY MR. FLAHERTY:

- 1 Q. While you were in port at the dock, was any fuel oil taken on
- 2 board? Bunkers?
- 3 A. No, it was (indiscernible).
- 4 Q. So they received fuel from the dock for the ship.
- 5 UNIDENTIFIED SPEAKER: I think you need to ask that again. I
- 6 don't believe it's going to be --
- 7 BY MR. FLAHERTY:
- 8 Q. Yeah. Did they take -- was any fuel -- did the ship onload
- 9 any fuel for the engines?
- 10 A. Like, how can I do?
- 11 Q. So there's no fueling facility?
- 12 A. You mean bunkering?
- 13 Q. Fuel. Bunkering. Yes.
- 14 A. At Jacksonville?
- 15 Q. No, here.
- MS. AMIOTTE McDONALD: Here at the port.
- 17 MR. LIM: No, there's not in Brunswick. No, we received the
- 18 bunker at Freeport.
- 19 MR. FLAHERTY: Freeport?
- 20 MR. LIM: Yeah.
- MR. FLAHERTY: Freeport?
- 22 MR. LIM: 600. Only 600.
- 23 UNIDENTIFIED SPEAKER: Metric tons?
- MR. LIM: Yeah, metric tons of high sulfur.
- 25 UNIDENTIFIED SPEAKER: High sulfur?

- 1 MR. LIM: Yeah.
- 2 BY MR. FLAHERTY:
- 3 Q. At the time the ship departed the port in Brunswick --
- 4 A. Brunswick. Yeah.
- 5 Q. Yes. How much were the -- were your -- how much fuel did you
- 6 | have? Was it your tanks were 70 percent full, 80 percent full --
- 7 A. No, no, no. Almost empty. Almost tank is empty. Only --
- 8 yesterday I show this one. I show this one. The fuel tank
- 9 condition.
- 10 Q. Okay. So are -- I'm trying -- okay, I'll have to see what it
- 11 | shows. So overall, we're -- when was -- so you just -- Freeport
- 12 you took fuel on. When was the next time the ship was scheduled
- 13 to have fuel?
- 14 A. To receive bunker.
- 15 Q. Yes.
- 16 A. Malta in -- Mediterranean Sea.
- 17 UNIDENTIFIED SPEAKER: Mediterranean Sea?
- 18 MR. LIM: Malta. Malta.
- 19 UNIDENTIFIED SPEAKER: In Malta.
- 20 BY MR. FLAHERTY:
- 21 Q. Okay. So at the time, the ship had plenty of fuel on board?
- 22 A. Actually they had --
- 23 (Through interpreter) They had enough fuel.
- 24 Q. Was any fuel, internal fuel transferred to other -- like, did
- 25 | they take it out of a storage tank and put it into a day tank?

- 1 Was there any significant movement of fuel within the vessel?
- 2 While you're in port.
- 3 A. (Through interpreter) Okay. He says automatically they
- 4 | refuel once they are departed from the port so they don't have to
- 5 manually do anything.
- 6 Q. So it's just the fuel tanks. So if the day tank for the
- 7 diesel generator comes down, it's automatic from a tank.
- 8 A. (In English) Yeah, yeah, yeah.
- 9 0. So no human interaction?
- 10 A. Automatic. Period.
- 11 Q. It's all automatic?
- 12 A. Yeah.
- 13 Q. Were any significant amount of lube oil transferred around
- 14 | within the engine room?
- 15 A. No.
- 16 (Through interpreter) Cylinder oil is used daily, but other
- 17 than that, no other oil will be transferred.
- 18 Q. What was the amount of freshwater? Did you have -- were your
- 19 freshwater tanks, were they full, or what were their condition at
- 20 | the time? Potable water, yes.
- 21 A. (Through interpreter) Approximately 50 to 60 percent. If it
- 22 | are traveling far distances, they will replenish the freshwater.
- 23 But this time, there was not a long distance that they would be
- 24 | traveling, so they did not replenish the freshwater.
- 25 Q. Okay. Did they discharge while in port here in Brunswick?

- 1 Did the ship discharge oil slops?
- 2 UNIDENTIFIED SPEAKER: They have slug off (indiscernible) --
- 3 MR. LIM: (In English) You mean discharge shore?
- 4 MR. FLAHERTY: Yeah. Yes.
- 5 MR. LIM: No, no.
- 6 BY MR. FLAHERTY:
- 7 Q. Yes. Okay. Did any gray water or --
- 8 A. We collected it in the gray water tank.
- 9 Q. And was any gray water transferred ashore?
- 10 A. No, no.
- 11 Q. Okay. So essentially in the engine room -- this is what I'm
- 12 getting to -- your fuel tanks, the lube oil, freshwater, ballast
- 13 -- or not -- I won't get into ballast -- potable water, no big
- 14 movements, no big -- no significant changes while you were in
- 15 port?
- 16 A. No, no.
- 17 (Through interpreter) The first tanks they have 85 percent
- 18 | full and the rest is part empty, so it's -- they don't need to do
- 19 anything. They don't have to make any movement.
- 20 Q. Okay. All right. I know the chief mate is in charge of
- 21 moving the ballast around. How does he accomplish that? Who does
- 22 he talk to in the engine room to -- is any member of the engine
- 23 | staff monitoring --
- 24 A. Monitoring the ballast pump.
- 25 Q. Ballast pump. But is -- so he gets a phone call or radio

- 1 | message. So please explain how the chief mate communicates with
- 2 | the engine room to move ballast around.
- 3 A. (Through interpreter) Unless there is a major problem, the
- 4 | engineer does not involve with the ballast in the water, the
- 5 ballast water. So but --
- 6 Q. So does the engineer -- I assume the engineer on duty. Does
- 7 | the chief mate contact the engineer who is on duty and tell him to
- 8 start this pump and open these valves?
- 9 A. (In English) Chief officer can operate ballast pump in his
- 10 office.
- 11 Q. Okay. So there's no -- so the engineers on watch in the
- 12 engine room will not --
- 13 A. Doesn't know what's in the engine room sometimes. This
- 14 engine room may be (indiscernible) vessel.
- 15 Q. So when the vessel's at the dock, the engineers, obviously,
- 16 are taking advantage of the downtime. Were you doing any
- 17 | maintenance at the time when the vessel was at the dock?
- 18 A. No.
- 19 Q. So I guess my question -- I'm trying to understand. The
- 20 chief mate can start pumps for the ballast system, open valves and
- 21 -- is the engineers on -- the engineers on the ship are not aware
- 22 | that's happening?
- 23 A. (Through interpreter) Yeah. There was no problem at the time
- 24 or even prior to, so there -- unless there a problem, the engineer
- 25 gets involved. Other than that, the chief mate take care on his

- 1 own. The ballast, that has to be done by the individual who's in
- 2 | charge. The engineer does not monitor 24 hours a day of what's
- 3 going on with the ballast or whatever.
- 4 Q. Okay. So let me -- while you're on board the vessel while it
- 5 was at the dock, did you notice any significant heeling while they
- 6 were loading cargo or discharging cargo?
- 7 A. (Through interpreter) During the loading and if it's no
- 8 movement -- if it goes beyond 10 degree or more, so there's a
- 9 problem. But if they're 1 or 2 degrees, they're leaning towards
- 10 one way or the other, they don't recognize there's a problem.
- 11 Q. Okay. At any point did he feel the vessel -- while it was
- 12 loading or unloading cargo in the Port of Brunswick, did it exceed
- 13 the 10 degrees either to port or to starboard?
- 14 A. (In English) No.
- 15 Q. Okay. At the time of departure --
- 16 A. Brunswick?
- 17 Q. Brunswick. Is the engine -- who has control of the engine
- 18 throttles? Is it at the bridge?
- 19 A. On the bridge.
- 20 Q. Bridge? All right. And that never changed while departing?
- 21 A. No.
- 22 | Q. Okay. And then what -- you were inside your stateroom when
- 23 the vessel heeled over. What alarms do you -- did you -- can you
- 24 remember what alarms you saw?
- 25 A. Only I can sound -- I can heard only alarm sound.

- 1 Q. You couldn't identify which alarm it was?
- 2 A. Yeah, yeah. Record alarm (indiscernible) system maybe.
- 3 (Through interpreter) Okay, because all of them, there is
- 4 | already or he did not see the what's alarming (indiscernible) So
- 5 he did not recognize which part -- where the alarm was. That the
- 6 | alarm -- the monitoring was over here and he was like about 5
- 7 | meters away from the monitor, so he could not recognize it.
- 8 Q. Okay. So after the -- please describe from -- the vessel
- 9 heeled over. You were in your stateroom.
- 10 A. Um-hum.
- 11 Q. Where was your stateroom located?
- 12 A. (In English) Port side, port aft. That's on the bridge.
- 13 Q. And how did you escape and get out of the vessel?
- 14 A. I don't want to -- I can't --
- 15 Q. If you don't feel -- if you're not comfortable with it,
- 16 | that's okay.
- 17 A. (Through interpreter) 1:30 in the morning, he was actually in
- 18 | his bed, that then he felt some movements in the bed. That's
- 19 normal on the vessel, so he did not really take it as serious.
- 20 But at the time then when the emergency alarm went off --
- 21 (In English) Emergency generator.
- 22 (Through interpreter) Yeah, generator, then he recognized it
- 23 is a problem. Right?
- Okay. From his bedroom and going towards the living room,
- 25 and it was a difficult time for him to try to go even through the

living room. At the time that he arrived at the living room, he fell about 3 meters down.

Okay. When the -- by the time when he gets to the living room, then he was -- he had to find a way to the window. And then everything fell from the -- his quarters, and he, somehow he just rumple through it and rumple through it and found a flashlight, and he went to look outside. And that's when he recognized that all this -- this here is a problem that he'll be facing.

Okay. After he looked outside, then -- and he could, he could see the water was coming up, and he's trying to find -- he's trying to recognize what are the height of the water maybe filling into quarters and the ship. And he trying to figure out.

He found the extension coil there from the vacuum cleaner, and then he found a coil for his refrigerator. And they -- and he connected those two coils --

UNIDENTIFIED SPEAKER: Cords.

2.0

INTERPRETER: The cords. Cords together. And he opened a window. And he dropped it, the cords, outside the window. And he saw that a few of the people was transferred to the boat. And the crew, the crew was --

Every 5, 10 minutes, he trying to call the engineers, and he have -- they recognized the problem early, 1:30 in the morning.

And he stayed on the ship till about 6:30. But during the time, every 5, 10 minutes, he's trying to call on the radio to try to identify the engineers, their whereabouts.

Okay. Without the antenna, there's no communications available to the engineer room, and then -- engine room. And then he was trying to contact the people on the radio every 5, 10 minutes. And then he just recognized that there is no -- probably all has been escaped. Because it's -- he had saw that some of the crews was on board.

2.0

After, he had received a rope from the rescue boat, and he has trouble making a decision whether to escape from the ship or -- because he's almost sure the (indiscernible) engineer was in the ship. And he has a battle himself after the rope was available for him to escape from the ship. But he stayed another hour and a half or 2 hours and -- but at the time, he was completely drained and so exhausted.

He saw two of the rescue boats up by his quarters, and they urged him to -- he need to escape from the ship at the moment, otherwise it's going to get very dangerous. But he was troubled himself whether to escape. But the encouragement of those rescue crews, and then he decided and he escaped from the ship.

Yeah, then he fell with the rope about 10 meters down, and he received an injury. And he was transferred to the rescue boat, and then he was moved to the -- transferred to the Coast Guard vessel.

Then soon after that he went on to the Coast Guard, the rescue boat, he has identified that there are four of his crew, the engineers still in the ship, and asked them for rescue those

four engineers.

Right after that he got onto the Coast Guard rescue boat, they gave him the life jacket and they want -- they travel about 30 minutes. And so he thought that he was going to be transferred to the land. Okay, 30 minute later, that they told him to come up, and they were still on the boat nearby.

Then someone, I asked him to show the -- give the instruction or the information to the passage into the engine room. But he was just so dismantled and he just could not give the exact information to the person who was asking about the passage to the engine room. So he requested they have his rescue boat near the ship. And then he give the information to those rescue crews to how to go to the passage into the engine room. And he gave the walkie-talkie to those rescue crew, and they -- if you get near the engine room, they -- he can communicate through the radio.

And after that, he gave all the information to the Coast Guard and they transfer him to the land, and that was the end of it.

BY MR. FLAHERTY:

- Q. Okay. Thank you. Your radio, were you able to talk to the captain with your radio?
- A. (Through interpreter) No, he was not. So he was just -- did not -- not together. And after the accident, the incident happened, there was no communication through the radio.
- MR. FLAHERTY: Okay. All right. I think that answers -- I'm

- 1 fine for now. Thank you, sir.
- 2 MR. LIM: Thank you.
- 3 MR. WILLETT: Do you have anything, sir?
- 4 UNIDENTIFIED SPEAKER: No questions.
- 5 BY MR. BREMER:
- 6 Q. Chief, Tom Bremer with the Marshall Islands.
- 7 A. Um-hum. Marshall Islands?
- 8 Q. Yes. Yes, Chief. Upon departure from Brunswick, do you know
- 9 which generators were online?
- 10 A. Three.
- 11 Q. All three were online?
- 12 A. All three generators.
- MR. BREMER: Okay. No further questions. Thank you, Chief.
- MR. WILLETT: Anyone?
- 15 UNIDENTIFIED SPEAKER: No.
- 16 BY MR. WILLETT:
- 17 Q. I got a couple of follow-up questions. With your fuel, how
- 18 do you convey that to the chief officer? Do you do a daily
- 19 account so he can do stability?
- 20 A. Yeah.
- 21 Q. So is it by computer or do you give him notes?
- 22 A. Sometimes -- actually we can monitor by, we can --
- 23 (Through interpreter) Through the monitoring system, they can
- 24 -- they just identify.
- 25 Q. Okay. So the chief officer can see the levels and he uses

- 1 that to compute stability?
- 2 A. (In English) Yes, yes. Yeah. Yeah.
- 3 Q. Okay. Another question I had is the fire system in the cargo
- 4 | decks. What type of fire system was in the cargo deck?
- 5 A. There are many --
- 6 Q. Do you have a sprinkler or low-pressure CO2?
- 7 A. Low pressure system.
- 8 Q. They had low pressure?
- 9 A. Yeah.
- 10 Q. Was it automatic or --
- 11 A. No, no.
- 12 Q. So you had big tanks?
- 13 A. Yeah, yeah. One big tank.
- 14 Q. Okay.
- 15 A. (Through interpreter) And this one is compatible to -- big to
- 16 fulfill the needs of the cargo and all this.
- 17 Q. Okay. Do you know if the main valve, is that always open or
- 18 closed or --
- 19 A. Main valve is closed always.
- 20 Q. So how do you activate that system if there's a fire?
- 21 A. We can operate it at CO2 room and fire control room.
- 22 Q. So the fire control room and the CO2 room?
- 23 A. Yeah.
- 24 Q. Okay. All right.
- 25 A. If you open, it's very easy to open and then --

- 1 Q. Do the vents for the cargo automatically close when you
- 2 activate the CO2? Dampeners. Yeah, fire --
- 3 A. (Through interpreter) Fire, fire --
- 4 Q. Yeah, all the, all the vents --
- 5 A. (In English) Yeah, yeah.
- 6 Q. -- and the fans for the cargo -- if you don't remember,
- 7 | that's okay.
- 8 A. I can't.
- 9 O. That's fine.
- 10 BY LCDR
- 11 Q. So, Chief, this drawing. Is this what was on board when you
- 12 guys departed Brunswick?
- 13 A. Yeah. I gave it to the salvage team also.
- 14 Q. Okay. So is the Golden Ray or the -- you guys have emergency
- 15 lights?
- 16 A. Yeah.
- 17 Q. What style -- how are they? How are they, how are they in
- 18 the vessel?
- 19 INTERPRETER: How?
- 20 LCDR : Yeah, what are they --
- 21 UNIDENTIFIED SPEAKER: How are they powered?
- 22 LCDR : What did they look like?
- 23 INTERPRETER: How are they powered?
- MR. LIM: (In English) First time, the emergency generator
- operated. We can use emergency light. And then if emergency

- 1 generator has some problem, there is another small light system
- 2 from emergency battery.
- 3 BY MR. WILLETT:
- 4 Q. Okay. Did that work? That small battery, did it have
- 5 emergency --
- 6 A. Yeah, yeah.
- 7 Q. But your stateroom was dark?
- 8 A. But the monitoring system, only the monitor --
- 9 (Through interpreter) Okay, the monitoring, the small -- the
- 10 screens always had light.
- 11 Q. Okay. Did you get your life jacket from your stateroom?
- 12 A. (In English) Yeah.
- 13 (Through interpreter) No, he did not get his life jacket
- 14 | because the stateroom was -- there was no time for him to retrieve
- 15 from his bedroom. So once he departed from his bedroom, there's
- 16 no way he can get back to the bedroom to retrieve the life jacket.
- 17 Q. Does he think if he had lighting in his bedroom, that he
- 18 | could have retrieved his life jacket?
- 19 A. (Through interpreter) Okay. His main responsibility,
- 20 whenever he seeks the problem at the vessel, that he is first --
- 21 | the reaction is to go towards the engine room, so the -- and once
- 22 he was left his bedroom and there's no way going back to his
- 23 | bedroom to retrieve the life jacket.
- MR. WILLETT: Okay.
- 25 LCDR : Is the escape route marked inside the vessel?

- 1 MR. LIM: No.
- 2 LCDR : No?
- 3 UNIDENTIFIED SPEAKER: I think there's a misunderstanding.
- 4 INTERPRETER: They have it. They have it. Yeah. They don't
- 5 have it in the stateroom, but they do have the escape route. And
- 6 yeah, they -- his bedroom doesn't, but on the vessel they do have
- 7 the escape route.
- 8 MR. FLAHERTY: Go ahead.
- 9 UNIDENTIFIED SPEAKER: I don't have any questions.
- 10 BY MR. FLAHERTY:
- 11 Q. Chief, did you notice the fire on the vessel before you
- 12 departed?
- 13 A. (In English) Fire? No.
- 14 Q. All right. When did you return to the vessel after the
- 15 | casualty to help out with the rescue of the engineers?
- 16 A. (Through interpreter) On the 9th, when he -- after he
- 17 departed from the ship, the accident site, and he was informed the
- 18 next morning by 6:30 they was going to come and pick him up to go
- 19 back to the accident site. But he -- they did not come at the
- 20 | time, but he did not recall the exact time they went. But next
- 21 day sometime in the morning that he arrived at the site of the
- 22 accident.
- 23 Q. Okay. When he arrived at the ship the next day, was there a
- 24 fire?
- 25 A. (Through interpreter) Yeah, on the night -- day of the 9th of

- 1 | the accident, he did not see any fire. Then once they went around
- 2 | the boat, he recognized that, on the seventh or eighth floor,
- 3 there was -- the smoke was coming out of it.
- 4 (In English) No, no, no, not smoke. I saw the flame.
- 5 INTERPRETER: Flame. Flame.
- 6 MR. LIM: And when I was in the Coast Guard boat vessel port
- 7 side, I saw -- seen smoke near the starboard side main bridge.
- 8 BY MR. FLAHERTY:
- 9 Q. Okay. And that was the following day?
- 10 INTERPRETER: Following day.
- MR. FLAHERTY: Oh, it's the same day?
- 12 INTERPRETER: Same day. Same day, on the 9th.
- 13 BY MR. FLAHERTY:
- 14 O. That was late -- yeah, but -- I'm sorry. Yeah, I shouldn't
- 15 | have said that. That was sometime in the afternoon? That was
- 16 later in the day?
- 17 A. (Through interpreter) Okay. He say that was in the morning,
- 18 | a time that he was escaped, that the Coast Guard boat was going
- 19 around, and that's when he saw that.
- 20 Q. So that was a -- he noticed it prior to getting off the
- 21 vessel. Or he was off the vessel --
- 22 INTERPRETER: No, after. After he escaped.
- MR. FLAHERTY: All right. I understand.
- 24 INTERPRETER: While he was on the ship, he did not recognize
- 25 there was any fire. But once he was escaped from the ship,

- transferred to the Coast Guard -- okay, he saw through the window
 there was a little smoke, but there is self-ignited, a smoker --
- 3 he thought that that was a self-ignited, a smoker was activated.
- 4 (In English) When I was in the vessel.
- 5 (Through interpreter) When the -- inside the vessel.
- 6 (In English) In the bottom (indiscernible).
- 7 UNIDENTIFIED SPEAKER: Oh, yeah, yeah, yeah. Remember that 8 thing they dropped when --
- 9 MR. FLAHERTY: Yeah.
- 10 MR. LIM: (In English) Because when I saw the smoke, I --
- 11 (Through interpreter) When he saw that the smoke was rising,
- 12 and then he felt like, oh, we're all dead. And then there was a
- 13 block in his passageway to escaping, so he thought that we all --
- Then later, he recognized that the smoker, the emergency
- 15 | ignited -- it self-ignited, a smoker was activated. And so then
- 16 he just had a sigh of relief that he's not in danger of such -- of
- 17 | the fire.
- 18 MR. FLAHERTY: Okay. All right. Well, I have --
- 19 BY MR. WILLETT:
- 20 Q. I have one final thing. About the low-pressure CO2, do you
- 21 know how long it might be with no power before it would start
- 22 | venting off?
- 23 A. (In English) Venting. How long? I don't know exactly.
- 24 Q. Okay.
- MR. FLAHERTY: Yeah, you'd have to ask the manufacturer --

- 1 MR. LIM: Maybe if the (indiscernible) is not working --
- 2 UNIDENTIFIED SPEAKER: The compressors? Yeah.
- 3 MR. LIM: -- it may be broken. But how long, I'm not sure.
- 4 MR. WILLETT: You don't know.
- 5 UNIDENTIFIED SPEAKER: If nobody -- oh, you got one?
- 6 BY MR. LEDET:
- 7 Q. Les Ledet, U.S. Coast Guard. Chief, is the steering
- 8 equipment in a separate room, a steering room?
- 9 A. (In English) Yeah, yeah, yeah, yeah.
- 10 Q. It is. Are there cameras that record the steering room?
- 11 A. I'm not sure.
- 12 Q. Are there cameras that record the engine room?
- 13 A. There is one camera, but --
- 14 (Through interpreter) There is a camera there, but he doesn't
- 15 know whether --
- 16 (In English) Engine room.
- 17 INTERPRETER: In the engine room. He does not know that, but
- 18 | -- he doesn't know if actually they have it actually recording,
- 19 but they do have it.
- 20 The CCTV camera can monitor, but -- the bridge and the chief
- 21 officer. That's two areas monitor consistently. And he does not
- 22 know whether they actually recorded it, but they do have it. And
- 23 they -- seven, eight of the CCTV, the camera's monitoring systems
- 24 are on the vessel, but he doesn't know whether all has worked or
- 25 | not. But he do know that there are seven or eight of them.

- 1 BY MR. LEDET:
- 2 Q. Have you ever seen pictures of the engine room on the
- 3 | monitors?
- 4 A. (In English) Yeah.
- 5 Q. You have? Do you know if the camera is pointing towards the
- 6 | steering room?
- 7 A. I don't -- I can't remember. That's why --
- 8 Q. Okay. Okay. Is the door of the steering room, is that
- 9 always kept closed?
- 10 A. Um-hum.
- 11 Q. Always? Or open?
- 12 A. (Through interpreter) All the doors can be monitored at the
- 13 bridge, but at the time of departure, there's the (indiscernible)
- 14 the steering door room is open and the pilot -- for him to
- 15 disembark for the -- from the back of the ship. So that door is
- 16 open for the pilot to go back.
- 17 (In English) For the pilot. Pilot door and the other one
- 18 door was open.
- 19 (Through interpreter) Is open, but all the rest of the doors
- 20 are locked. Is closed.
- 21 Q. Okay, so the steering room --
- 22 A. (In English) Yeah, closed. They're closed.
- 23 Q. Is closed.
- 24 A. Always closed.
- 25 INTERPRETER: Always closed?

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1
         MR. LIM: Yeah. Yeah, yeah. We have closed --
 2
         UNIDENTIFIED SPEAKER: Closed and dogged?
 3
         MR. LIM: (In English) Yeah, yeah.
 4
         MR. LEDET: Okay. Thank you.
 5
         MR. LIM: We have (indiscernible).
 6
         MR. LEDET:
                     Thank you.
 7
         UNIDENTIFIED SPEAKER: All right. If nobody has any other
8
    questions, we'll conclude the interview. It's approximately 9:10.
9
          (Whereupon, at 9:10 a.m., the interview was concluded.)
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CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: CAPSIZING/SINKING OF THE GOLDEN

RAY IN THE BRUNSWICK RIVER, GEORGIA, ON SEPTEMBER 8, 2019 Interview of Kwang Seob Lim

ACCIDENT NO.: DCA19FM048

PLACE:

DATE: September 11, 2019

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

Eileen Gonzalez
Transcriber