

NATIONAL TRANSPORTATION SAFETY BOARD

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 IN RE: :  
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 THE EL FARO INCIDENT OFF THE: NTSB Accident No.  
 COAST OF THE BAHAMAS ON : DCA16MM001  
 OCTOBER 1, 2015 :  
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INTERVIEW OF: MARK LAROSE, SURVEYOR

Saturday,  
 October 10, 2015  
 1:12 p.m.

Jacksonville, Florida

BEFORE:

TOM ROTH-ROFFY, Investigator-in-charge, NTSB  
 MIKE KUCHARSKI, NTSB  
 BRIAN YOUNG, NTSB  
 JIM FISHER-ANDERSEN, TOTE Services  
 ERIK GARZA, ESQ., ABS  
 MIKE MILLAR, ABS  
 [REDACTED] U.S. Coast Guard  
 LOUIS O'DONNELL, ABS  
 [REDACTED] U.S. Coast Guard  
 KEVIN STITH, TOTE Services  
 [REDACTED] U.S. Coast Guard

This transcript was produced from audio provided by the  
 National Transportation Safety Board.

1 P-R-O-C-E-E-D-I-N-G-S

2 (1:12 p.m.)

3 MR. YOUNG: Okay. Saturday, October 10th at  
4 13:12. This is Brian Young with the NTSB, the  
5 Engineering Group Chairman. We are here to interview  
6 ABS Surveyor Mark LaRose.

7 MR. LaROSE: LaRose (pronouncing).

8 MR. YOUNG: LaRose. And I'm just going to  
9 read a few mandatory briefing items that I'm required  
10 to and then we'll get into the interview.

11 The purpose of this investigation is to  
12 increase safety. We are not to assign fault, blame, or  
13 liability. A transcript or summary of the interview  
14 will go into the public docket and will be made  
15 available to you. We will be recording this.

16 You are allowed to have one representative  
17 of your choice. Your representative may not testify  
18 for the interviewee and the representative's comments  
19 should be limited to objections and are not grounds for  
20 the NTSB to refrain from asking questions.

21 Again, my name is Brian Young. I am the  
22 Group Chairman for the engineering portion of this  
23 investigation. Our party is comprised of four members.  
24 I have a party member from the ABS, Lou; a party member  
25 from the Coast Guard, [REDACTED] and a party member from

1 TOTE, Jim. And we're going to go around and each one  
2 of them will introduce themselves. They are here to  
3 supply technical expertise into the investigation and  
4 they are helping us perform our fact-finding mission.

5 If you have any objection to anyone else  
6 other than NTSB employees taking part in this interview  
7 we can remove them. We are in the fact-finding portion  
8 of this investigation. We're doing everything we can  
9 to get as many facts as we can for the El Faro. After  
10 that we will go into an analysis to determine a  
11 probable cause and, if necessary, issue safety  
12 recommendations to prevent this from happening again.  
13 That's why we're here.

14 If at any time you don't understand any of  
15 our questions, just ask to have it repeated or  
16 rephrased. If there's something you don't know, it's  
17 fine, just let us know you don't know.

18 And any questions?

19 MR. LaROSE: No. That sounds good.

20 MR. YOUNG: Okay. So we are recording.

21 We're going to introduce ourselves. And start with  
22 myself. I'm Brian Young. I'm the Engineering Group  
23 Chairman for the NTSB.

24 MR. O'DONNELL: Louis O'Donnell, Assistant  
25 Chief Surveyor, and I work with ABS.

1 [REDACTED] I'm [REDACTED] I'm with  
2 the Coast Guard and I'm with the Operations Group.

3 [REDACTED] [REDACTED] with Coast Guard. And  
4 I'm with the Engineering Group.

5 MR. STITH: Kevin Stith with TOTE Services,  
6 TOTE Services on the Operations Group.

7 MR. KUCHARSKI: Good afternoon. I'm Mike  
8 Kucharski. I'm the NTSB Operations Group Chairman.

9 MR. ROTH-ROFFY: And my name is Tom Roth-  
10 Roffy. I'm the Investigator-in-Charge for the NTSB  
11 investigation.

12 MR. MILLAR: I'm Mike Millar with ABS. I'm  
13 a part of the Operations Group.

14 MR. FISHER-ANDERSEN: Jim Fisker-Andersen,  
15 TOTE Services. And I'm part of the NTSB Engineering  
16 Group.

17 MR. GARZA: And my name's Erik Garza. I'm  
18 Associate General Counsel of American Bureau of  
19 Shipping.

20 MR. YOUNG: And if you could state your name  
21 and spell it for the record, please.

22 MR. LaROSE: My name is Mark LaRose. That's  
23 M--A--R--K L--a--R--O--S--E. I'm a surveyor with American  
24 Bureau of Shipping.

25 MR. [REDACTED] Good afternoon. I'm [REDACTED]

1 [REDACTED] I'm with the Coast Guard and I'm the Lead  
2 Investigator for the Coast Guard.

3 MR. YOUNG: Thank you.

4 And, Mark, just so you know, we are  
5 recording this. And I just want to make sure that you  
6 understand that and approve of that?

7 MR. LaROSE: Yes.

8 MR. YOUNG: Sounds good. If you could just  
9 start out, Mark, and just give us a little brief  
10 background of your maritime training and experience  
11 that has led you up to be a surveyor with the ABS?

12 MR. LaROSE: Starts with high school I  
13 guess. I went to a vocational-technical high school in  
14 Massachusetts where I did machining, welding and metal  
15 fabrication.

16 From there I went to the Massachusetts  
17 Maritime Academy. I have a Bachelor's Degree in Marine  
18 Engineering. I graduated with a U.S. Coast Guard third  
19 assistant engineer's license, unlimited, steam and  
20 motor.

21 I sailed for approximately two years with  
22 Mersk as a third engineer on a container ship. And  
23 then with Interocean American Shipping on a semi-  
24 submersible platform.

25 I stopped sailing after a couple years. I

1 went to work at Caterpillar as a service technician.  
2 That lasted about six months; got laid off. Went to  
3 work fo Ingersoll Rand as a service technician. And  
4 then I left Ingersoll Rand to come to work for ABS in  
5 May of 2008. So with ABS for about seven-and-a-half  
6 years.

7 And I've been in Houston doing mostly  
8 offshore vendor surveys for offshore equipment. Was in  
9 Brownsville for a few months doing new construction  
10 jack-up rigs. Then I was transferred to South Korea  
11 where I was for just over five years doing new  
12 construction mostly. I was project lead for a  
13 container ship project and a bulk carrier project. I  
14 also worked on drill ships, offshore platforms, things  
15 of that nature.

16 I transferred again to Jacksonville in March  
17 of last year, 2014. And now I am in charge of the new  
18 construction offshore support vessel project at the ABS  
19 shipyards.

20 MR. YOUNG: Great. And in all this time  
21 with the ABS have you received any training or any  
22 qualifications requirements to -- for your surveyor  
23 status?

24 MR. LaROSE: Yes. ABS has a -- the academy  
25 and a set training schedule as far as, you know,

1 classes that we have to take in the academy to become a  
2 surveyor. And then there's qualifications based on  
3 where you are and what kind of type of work you're  
4 doing. As you attend, you can become qualified for all  
5 the different surveys that we, that we do.

6 MR. YOUNG: Are you able to list some of the  
7 qualifications you have or is that too extensive to  
8 remember?

9 MR. LaROSE: It's a pretty long list. I  
10 don't know if we could pull it up or but basically we  
11 have a system online that has our, lists all our  
12 qualifications, which surveys we're qualified for,  
13 which classes we've attended and completed.

14 MR. YOUNG: Okay. Maybe that's something we  
15 could request to the ABS to just look at your  
16 qualifications.

17 Okay. In terms of training and background  
18 I'm going to open it up to the rest of the room. We'll  
19 go around clockwise. If anyone has any questions of  
20 Mark on his training or experience.

21 Lou?

22 MR. O'DONNELL: Yes. Louis O'Donnell, ABS.  
23 Mark, could you advise what required  
24 training, you spoke of the classroom training at ABS  
25 Academy, and any additional training you've had since

1 you started your employment with ABS?

2 MR. LaROSE: So to begin with ABS, I went  
3 through confined space entry training, ND, non-  
4 destructive examination, weld inspection, visual weld  
5 inspection training. I did the MODU, mobile offshore  
6 drilling unit course. That was all done in the  
7 basically the first month I was with ABS. And that's  
8 part of the New Hire One training package that ABS  
9 requires when you get hired on.

10 Then I went out to do field training which  
11 is basically the phase two of that, which included my  
12 time mostly in Houston and Brownsville.

13 Then I went in for New Hire Three, which was  
14 basically just two weeks of classroom training on all  
15 subjects within ABS.

16 I've also been back to the academy for a few  
17 different specific courses. The dynamic digiting  
18 course I've taken. I've taken the L&G fueled vessel  
19 course, the L&G tanker course. I've taken advanced  
20 drilling systems course. And then I've been back twice  
21 for experienced surveyor validation training, which is  
22 a -- takes place every three years.

23 MR. O'DONNELL: No further questions.

24 [REDACTED] No questions.

25 [REDACTED] [REDACTED] with U.S. Coast Guard.



1 With regards to the El Faro and the work that you were  
2 doing on there, did you meet all those ABS standards  
3 and qualifications you needed to do that work?

4 MR. LaROSE: Yes.

5 [REDACTED] Thank you.

6 MR. STITH: Nothing.

7 MR. KUCHARSKI: Mike Kucharski. Did you say  
8 you worked for Interocean American Shipping?

9 MR. LaROSE: Yes.

10 MR. KUCHARSKI: And in what capacity was  
11 that?

12 MR. LaROSE: I was a third assistant  
13 engineer.

14 MR. KUCHARSKI: Third assistant. And that's  
15 the Interocean American Shipping that was Ugland and  
16 then which eventually became TOTE Services?

17 MR. LaROSE: I guess, yeah. Now.

18 MR. KUCHARSKI: Okay. Thank you.

19 MR. LaROSE: I didn't realize that.

20 MR. ROTH-ROFFY: No questions.

21 MR. MILLAR: No questions.

22 MR. YOUNG: Okay. All set?

23 MR. FISHER-ANDERSEN: Yes.

24 MR. YOUNG: Okay. Okay, if we could now --  
25 this is Brian Young with the NTSB -- narrow down on the

1 survey that you performed aboard the EEE. If you could  
2 maybe give us a description of why you were called to  
3 go to the vessel to attend, and what took place during  
4 that survey?

5 MR. LaROSE: They, TOTE, had requested a  
6 continuous machinery survey. And that went through our  
7 office and it was -- I was asked if I could attend for  
8 that survey, which basically consists of going on board  
9 and looking at the machinery items. They have a --  
10 basically all of their machinery items need to be  
11 looked at every, every five years. And a continuous  
12 machinery survey allows that to happen over the five-  
13 year period instead of doing everything at once right  
14 at the end.

15 So they had items that were coming up due  
16 based on their previous dates of inspection. So I was  
17 asked to go on board to look at those items and credit  
18 as necessary.

19 MR. YOUNG: This is Brian Young again. What  
20 was the date of this survey when you attended the  
21 vessel?

22 MR. LaROSE: June 16th, 2015.

23 MR. YOUNG: June 16th of '15.

24 And did your survey pretty much concentrate  
25 on machinery or was there anything else to do with

1 navigation up on the bridge?

2 MR. LaROSE: It was just machinery.

3 MR. YOUNG: Just machinery.

4 Would you maybe start with your report and  
5 just list some of the -- or the machinery in order of  
6 your report of which, which machinery you surveyed?  
7 And with each piece of equipment if there's anything we  
8 feel that there's any questions on we'll pass it around  
9 the room.

10 MR. LaROSE: Would you like me to just read  
11 off the items that I credited?

12 MR. YOUNG: Yes, yes.

13 MR. LaROSE: So I credited items to the  
14 ballast system, the ballast piping and the two ballast  
15 pumps.

16 MR. YOUNG: Okay, if you could just stop  
17 there.

18 MR. LaROSE: Yes.

19 MR. YOUNG: In order to credit the ballast  
20 pumps, the ballast piping, were there any tests  
21 performed or any operations visually?

22 MR. LaROSE: Yes. There was a, well, a  
23 visual examination of the piping and the pumps  
24 themselves, and then operational testing to check that  
25 there was no abnormal vibrations or temperatures or

1 leakages or anything like that.

2 We also checked the records on board the  
3 vessel as far as from condition monitoring that they  
4 have performed, which is a vibration analysis. They  
5 have their records on board so I checked that for all  
6 the equipment that I checked.

7 And some equipment they, that they had  
8 recently worked on or overhauled they had records on  
9 board with pictures and notes of what they had done. I  
10 don't recall exactly what equipment had, you know, been  
11 overhauled previously. They had some items did, some  
12 didn't.

13 MR. YOUNG: Okay. When it comes to the  
14 bilge and ballast pumps, we understand there were two  
15 of them, electric, electrically operated pumps. When  
16 you were aboard did you run them both and --

17 MR. LaROSE: Yes.

18 MR. YOUNG: -- and they didn't seem to have  
19 any problems with them?

20 MR. LaROSE: No, no problems.

21 MR. YOUNG: Okay.

22 MR. LaROSE: Everything seemed fine.

23 MR. YOUNG: Great. Bilge and ballast  
24 system, anyone, questions for doing this survey?

25 MR. O'DONNELL: No further questions.

1 [REDACTED] [REDACTED] with the U.S. Coast  
2 Guard. With the bilge and ballast system, outside of  
3 the pumps and again in the piping, that included any  
4 bilge alarms or floor alarms in the cargo area?

5 MR. LaROSE: No. That would have been --

6 [REDACTED] That would be tested --

7 MR. LaROSE: That would be tested during the  
8 annual machinery survey.

9 [REDACTED] Okay.

10 MR. LaROSE: This is just, this is in the  
11 continuous machinery, just focused on the equipment  
12 itself.

13 [REDACTED] All right. Thank you.

14 MR. O'DONNELL: Excuse me. Lou O'Donnell,  
15 ABS. One quick redirect.

16 Would not the bilge alarms be a specific  
17 item for survey for the five-year?

18 MR. LaROSE: Yes. Could have been.

19 MR. O'DONNELL: Okay, thank you.

20 No further questions.

21 PARTICIPANT: No questions.

22 PARTICIPANT: The tests on the ballast pump  
23 itself, are there any pressure parameters that you're  
24 operating within?

25 MR. LaROSE: Just within normal working

1 pressure.

2 MR. ROTH-ROFFY: Tom Roth-Roffy, NTSB.

3 Continuous survey, and I believe Lou  
4 mentioned something about five years, could you  
5 describe that for those who, like me, don't understand  
6 what the continuous survey is and the frequency of  
7 those surveys?

8 MR. LaROSE: Yes. So, so basically  
9 everything has to be looked at over a five-year period.  
10 And some owners like to do what's considered a  
11 continuous machinery survey so that they can look at  
12 normally 20 percent each year to kind of relieve the  
13 burden of having to do everything all at once at the  
14 very end. And plus it gives, it keeps people's eyes on  
15 the engine room over the entire span of the, of the,  
16 you know, five years. It's not -- you know, so we're  
17 in on board being able to look at everything and being  
18 there.

19 MR. ROTH-ROFFY: As part of this continuous  
20 machinery survey is there any open inspection of the  
21 pump or the motor or any other similar sorts of  
22 inspections?

23 MR. LaROSE: There can be. It depends on  
24 the, depends on operationally where they happen to be  
25 at in their life span as far as the pumps and when they

1 were last, when they were last opened. It's kind of a  
2 case by case basis on each piece of equipment.

3 MR. ROTH-ROFFY: All right. So on these  
4 bilge and ballast pumps, can you tell me, you know, how  
5 you made the determination not to open it up? Or did  
6 you open it up?

7 MR. LaROSE: We did not open anything.

8 MR. ROTH-ROFFY: Okay, so why not?

9 MR. LaROSE: We, we did an operational test  
10 and a visual examination while it was running and  
11 didn't see any issues with the pumps themselves.

12 MR. ROTH-ROFFY: Do you know when the pumps  
13 were last overhauled?

14 MR. LaROSE: I, I don't know. There would  
15 have to be -- the ship would have records of that.

16 MR. ROTH-ROFFY: Is that part of your, your  
17 evaluation of whether or not to open the equipment?

18 MR. LaROSE: Yes. We reviewed the -- I  
19 reviewed the records.

20 MR. ROTH-ROFFY: No further questions.

21 MR. MILLAR: Mike Millar, ABS.

22 In the course of your survey, if you felt  
23 that maybe the conditions weren't right would you have  
24 the ability to require them to open it up to inspect  
25 it?

1 MR. LaROSE: Yes.

2 MR. MILLAR: And did you, if there was --  
3 did you find that the case on any of the equipment  
4 during your survey?

5 MR. LaROSE: No. Everything worked. We had  
6 no issues with anything while I was there.

7 PARTICIPANT: No questions.

8 [REDACTED] [REDACTED] with the Coast  
9 Guard. Just one quick follow-up to that.

10 Is there, in addition to if you had seen  
11 something that concerned you during the operational  
12 testing, is there also a frequency where you would open  
13 it up? You said you reviewed the records. If it had  
14 been a certain amount of time would therefore that kick  
15 in a requirement to open it up?

16 MR. LaROSE: The ship's preventative  
17 maintenance plan will have intervals on when items need  
18 to be opened. This, this vessel also was in the --  
19 using condition monitoring and vibration analysis  
20 which, depending on the readings that they get from  
21 doing that, can allow them to, to go a little bit  
22 longer without having to open it up or change a bearing  
23 or, you know, anything of that sort.

24 So those records that the vessel had all  
25 those records, I reviewed that with the chief engineer.



1 And there was nothing that jumped out that needed any  
2 extra attention or, you know, to be looked at further  
3 than visual and operational testing.

4 [REDACTED] Thank you.

5 MR. YOUNG: Anything, Jim?

6 MR. FISHER-ANDERSEN: No. No questions.

7 MR. YOUNG: Okay. Okay, if you can continue  
8 you down your list. We are not going to hit everything  
9 on your list.

10 MR. LaROSE: Right.

11 MR. YOUNG: But there are some items of  
12 concern that we have, and the bilge and ballast system  
13 is one of them.

14 MR. LaROSE: Okay. So, the next, next  
15 things would be bleed steam piping, the boiler feed  
16 water system, the boiler feed pumps, both pumps, the  
17 feed water piping, the feed heater, first stage of the  
18 feed heater, the low pressure steam generator feed  
19 pumps number 1 and number 2. Then the compressed air  
20 system.

21 MR. YOUNG: Before you get into compressed  
22 air. On the boiler feed water system, during that  
23 inspection obviously they were at least running one  
24 pump if they were --

25 MR. LaROSE: Correct.

1 MR. YOUNG: Did you have them switch to  
2 another pump and then ran --

3 MR. LaROSE: Yes.

4 MR. YOUNG: -- both pumps in your presence?

5 MR. LaROSE: Yes, they ran both pumps.

6 MR. YOUNG: Was it required to do the  
7 electric feed pump too or just the steam pumps?

8 MR. LaROSE: Just the steam pumps.

9 MR. YOUNG: Okay. And again, if there were  
10 any issues you would have noted that in the report?

11 MR. LaROSE: Correct.

12 MR. YOUNG: No issues with either feed pump?

13 MR. LaROSE: No, sir.

14 MR. YOUNG: Okay. Anything on the boiler  
15 feed water system, going around the room?

16 (No response.)

17 MR. YOUNG: Okay.

18 MR. LaROSE: So next is the compressed air  
19 system. Compressed air piping, control air compressors  
20 and the two service compressors, port and starboard.  
21 Then the condensate system which included condensate  
22 piping, the evaporator brine pump, evaporator  
23 condensate pump, and the three vacuum pumps.

24 In the emergency power distribution system,  
25 the emergency generator, emergency generator

1 operational test, and emergency generator attachments.

2 MR. YOUNG: Okay. Could you give a little  
3 further description on the emergency generator testing  
4 procedure and what was carried out that day?

5 MR. LaROSE: So the emergency generator we  
6 went to the emergency generator room and we, we had  
7 them test run the emergency generator. And we isolated  
8 the emergency board so that they could put it on the  
9 board. We tested some of the safety trips, the over-  
10 speed reverse power relays. And everything, and so the  
11 tests that they do, you know, on board frequently, so  
12 it, there was nothing with that that was out of the  
13 ordinary. Everything worked fine.

14 MR. YOUNG: Do you know if there's more than  
15 one way of starting that engine?

16 MR. LaROSE: Yes. There is an emergency --  
17 I don't recall exactly whether it was batteries or hand  
18 pump, but we did test. As part of my test I always  
19 test both starting, ways to start it. I just don't  
20 recall exactly what the other ways that it was.

21 MR. YOUNG: And when it was under operating  
22 was it under load?

23 MR. LaROSE: Yes.

24 MR. YOUNG: It carried the emergency load?

25 MR. LaROSE: Yes.

1 MR. YOUNG: Okay. Emergency generator?  
2 Anybody?

3 (No response.)

4 MR. YOUNG: Okay.

5 MR. LaROSE: Get into their fire main  
6 system, the fire main piping and the main and emergency  
7 fire pumps. Fresh water system, the distilling plant,  
8 evaporator, distiller pump and fresh water piping.  
9 Fuel oil service system was just looking at the piping.  
10 Same thing for the fuel oil storage and transfer  
11 system.

12 We actually, actually the fuel oil transfer  
13 pump as well. Lube oil service system with the lube  
14 oil service piping. The lube oil storage and transfer  
15 system, looked at the piping and two purifiers, lube  
16 oil purifiers number 1 and 2.

17 MR. LaROSE: And with the lube oil system do  
18 you recall or remember testing any sort of alarms in  
19 that system?

20 MR. LaROSE: No. They had a, they had the  
21 purifiers running so I just, I checked with the  
22 condition of them while they were running.

23 The main power distribution system,  
24 auxiliary generator number 1 and number 2 with  
25 operational tests. Auxiliary turbine number 2,

1 electric motors and the generator reverse power relays  
2 for both number 1 and number 2.

3 MR. YOUNG: And were they tested when you  
4 were aboard?

5 MR. LaROSE: Yes. And everything was  
6 operationally tested and safety tested as well.

7 MR. YOUNG: Okay.

8 MR. LaROSE: Main propulsion system was just  
9 the foundation bolts, basically the foundation bolts  
10 for the gear box, the reduction gear box. Seawater  
11 cooling system. Saltwater service pump number 1 and  
12 the piping. Steam piping system was just to look at  
13 the piping.

14 Steering gear system. The steering gear  
15 unit itself, the piping and the pumps. And we ran the  
16 steering gear unit both from the bridge and from the  
17 emergency controls in the steering gear room. We ran  
18 it on both pumps, swung the rudder hard both  
19 directions. And everything worked fine, as expected.

20 And that was all.

21 MR. YOUNG: Anyone else have anything on the  
22 machinery tested?

23 PARTICIPANT: At some point, I don't know  
24 where you're going to go from here, but I think that --

25 MR. LaROSE: There's more to, more to do.

1 Just in terms of the machinery.

2 PARTICIPANT: No further questions.

3 MR. YOUNG: So while you were on board  
4 dealing with these surveys and inspections, you  
5 obviously had good interaction with the crew. Do you  
6 recall what, what sort of caliber of competency the  
7 crew had and how your interaction was with them?

8 MR. LaROSE: Well, my interaction was short.  
9 But when I went on board I, you know, prior to going on  
10 board I had spoken with the port engineer. He was  
11 aware of what items were coming up due, so what items I  
12 was going to be looking at. And when I got on board I  
13 met with the chief engineer and he had everything that  
14 I needed to see.

15 He had all the vibration analysis paperwork.  
16 He had all the records as far as maintenance they had  
17 done on all the items ready for me to look at. We went  
18 down below and everything that I asked to test he  
19 tested. And they tested without any questions asked.  
20 So everything went well during the time I was there.

21 MR. YOUNG: Do you remember which chief was  
22 there?

23 MR. LaROSE: I --

24 MR. YOUNG: It's either Richard or Jim.

25 MR. LaROSE: I don't recall which one it

1 was.

2 MR. YOUNG: And during your interaction with  
3 the chief were there ever any complaints or discussions  
4 or comments about any machinery that could have been  
5 giving him a problem with failures or --

6 MR. LaROSE: No.

7 MR. YOUNG: -- concerns with his plant?

8 MR. LaROSE: No.

9 MR. YOUNG: Okay.

10 PARTICIPANT: Expand, would you expand on  
11 Mr. Young's question. When you were first to come to  
12 see the crew, like the chief first, while you were  
13 testing equipment with the crew did you feel they were  
14 very capable, comfortable, understood the plant? I  
15 mean had no issues with testing anything, you know?

16 MR. LaROSE: No issues.

17 PARTICIPANT: Their skill levels, let's say  
18 above average, average, below average level? What  
19 would you say their skill level and familiarity was  
20 with the plant?

21 MR. LaROSE: I mean I don't want to make  
22 assumptions but they, like I said, everything that I  
23 asked for them to do they did. No questions asked,  
24 they did it. They didn't appear to have any problems  
25 whatsoever. They were able to do everything --

1 PARTICIPANT: Okay. Very good.

2 MR. LaROSE: -- that they needed to do, so.

3 PARTICIPANT: That's all I need. Thank you.

4 PARTICIPANT: No questions.

5 PARTICIPANT: No questions.

6 MR. ROTH-ROFFY: I better ask my question  
7 now before we get into areas totally unrelated to what  
8 I want to ask. Tom Roth-Roffy, NTSB.

9 When you go aboard a vessel do you bill the  
10 company directly or how does that work, billing for  
11 your services?

12 MR. LaROSE: Yeah, depends on how it's set  
13 up within our system, but normally, yeah, it should go  
14 right to the company I believe.

15 MR. ROTH-ROFFY: And how is that billing  
16 based? Is it upon the number of hours that you took to  
17 do the survey or is it just some flat survey rate?

18 MR. LaROSE: It depends. Every company is  
19 different. We have different agreements with different  
20 companies. And different surveys have different prices  
21 attached to them.

22 The surveys have a standard and then that  
23 standard from there is based on the agreement we have  
24 with the company, maybe adjusted.

25 MR. ROTH-ROFFY: And to account for your



1 time when you're on board do you have to submit a hours  
2 expended time aboard to cover all that stuff?

3 MR. LaROSE: Yeah. We have basically for  
4 the -- when we open a work order the tasks are put on.  
5 So continuous machinery is a task for that work order.  
6 So then my time would go against that task, and that  
7 would include travel time, work time, report time.

8 MR. ROTH-ROFFY: Okay. And do you recall  
9 how long you spent on board the vessel during that  
10 survey?

11 MR. LaROSE: The day I was on board I think  
12 my time card had six hours on it.

13 Actually it's not in there. But, yeah, I  
14 believe it was six hours.

15 MR. ROTH-ROFFY: Is that a typical amount of  
16 time it takes to do an annual survey on a vessel of  
17 this type?

18 MR. LaROSE: Well it wasn't an annual  
19 survey. It was a --

20 MR. ROTH-ROFFY: A continuous survey.

21 MR. LaROSE: -- continuous survey.

22 MR. ROTH-ROFFY: Is a continuous survey done  
23 annually or just how is that done?

24 MR. LaROSE: It's done over, like I said,  
25 over a five-year period. And it depends on what

1 equipment is coming up due based on when it was done  
2 last.

3 MR. ROTH-ROFFY: Okay.

4 MR. LaROSE: So, you know, the day that I  
5 went on, yeah, I mean it was a pretty normal amount of  
6 time. Didn't seem like it was too little or too much.  
7 We were able to get everything done that we needed to  
8 get done in that amount of time.

9 MR. ROTH-ROFFY: And along the lines of the  
10 competency of the crew, is there some sort of credit  
11 given to the chief engineer to be able to participate  
12 in this continuous survey arrangement? Some sort of  
13 certificate, certification that he is able to -- help  
14 me out. I'm going based on my memory.

15 MR. LaROSE: No, I -- no, I mean it's --

16 PARTICIPANT: This is what I get from the  
17 NTSB. When I sailed chief I got a certification saying  
18 that I was able to operate or inspect machinery. And  
19 if I signed it, it would be presented to an ABS  
20 inspector and our vessel would get credit for it.

21 MR. LaROSE: Because that's a different,  
22 that's under a preventative maintenance program which  
23 means that basically if the ship is under a  
24 preventative maintenance program then we could  
25 basically take the chief's word that this, this piece

1 of equipment was completed. And then we could credit  
2 it based on that.

3 This ship was not under that program so  
4 that's why I was actually on board and testing the  
5 equipment with the chief, not just basing what I, you  
6 know, not just basing what I credited off of the  
7 chief's work.

8 MR. ROTH-ROFFY: Okay. So how do you --  
9 what sort of level of -- I'm not understanding you.  
10 You say you looked at the preventative maintenance  
11 history?

12 MR. LaROSE: Right.

13 MR. ROTH-ROFFY: But the chief engineer is  
14 not --

15 MR. LaROSE: Right. Well, I --

16 MR. ROTH-ROFFY: -- certified by ABS to do  
17 the maintenance. So how did you know that this  
18 maintenance --

19 MR. LaROSE: Well, the chief engineer, the  
20 chief engineer is, you know, a chief engineer; he can  
21 do all the maintenance on the vessel that he wants to  
22 do and needs to do. And it's up to the ship owner and  
23 the chief to decide what maybe they want to sub out or  
24 not.

25 There's two different programs that we have,

1 I think is where the confusion is coming into. The  
2 preventative maintenance program, which again this ship  
3 was not part of, allows -- there's basically an audit  
4 done of the vessel and their preventative maintenance  
5 programs and the chief engineer. And then the ship is  
6 enrolled in that, would be enrolled in that program if  
7 everything is satisfactory.

8 And then basically the chief could send us  
9 an email and said -- and say, hey, I, we just  
10 overhauled, you know, whatever piece of equipment, can  
11 you please credit it? And we could credit it.

12 What I did was, was different. I went on  
13 board and got with the chief, went through his records  
14 of what he had, and then tested the equipment for my  
15 own, for myself, to see with my own eyes. And then  
16 credited it based off of that.

17 MR. ROTH-ROFFY: Okay. You say if he'd done  
18 that program you would accept his statement that it was  
19 overrun. Since he was not in the program, if the  
20 machinery history shows that there is overrun, how do  
21 you, how do you give credit for that if he's not in the  
22 preventative maintenance program?

23 If I'm not making myself clear maybe  
24 somebody else can help me out.

25 MR. O'DONNELL: Being the subject matter

1 expert in the room, Lou O'Donnell with ABS, may I offer  
2 some clarification?

3 MR. ROTH-ROFFY: Yes, please.

4 MR. O'DONNELL: All right. We had a few, a  
5 few programs for preventative maintenance, condition  
6 monitoring. In the preventative maintenance program,  
7 yes, the chief engineer can credit some parts on the  
8 vessel. I would say not critical parts. However,  
9 there are parts the chief engineer is not allowed to  
10 give the chief engineer credit on. And these would be  
11 critical propulsion auxiliaries, fire, bilge, things  
12 like that. Those have to be witnessed and credited by  
13 the survey.

14 However, even when the chief engineer says,  
15 hey, I did an overall. Did you do the preventative  
16 maintenance, all that? So, and either way Mark will  
17 confirm this for me, the surveyor is still required to  
18 go on board, even though the chief engineer has done  
19 that, to review the records, whatever the chief  
20 engineer provides to him, obtain evidence that the  
21 actual overhauls or whatever was done and still  
22 operationally test the machinery.

23 Even though the chief engineer requests that  
24 part to be credited, the surveyor still reserves the  
25 right whether or not he will allow to accept the chief

1 engineer's report. The surveyor can still retract that  
2 report and not credit the machinery and require open  
3 inspect or something else to be done.

4 Similar, similar but different programs, CM,  
5 condition monitoring is basically vibration analysis,  
6 thermography, and it's just another tool the surveyor  
7 would use. And it's like taking the preventative  
8 maintenance to another level. It's adding into your  
9 preventative maintenance.

10 I would assume maybe TOTE, and I'm assuming  
11 that they have a very strong preventative maintenance  
12 program, and AMOS (phonetic) that we've talked about the  
13 last few days, so the benefit of being in the ABS PM  
14 program may not be a benefit to them with AMOS. But  
15 having condition monitoring, it's something additional  
16 they can add on top of their base preventative  
17 maintenance program with the additional vibration  
18 analysis, thermography and the other things they do.

19 So maybe that will clarify it.

20 MR. ROTH-ROFFY: It does. Thank you.

21 MR. O'DONNELL: Okay.

22 MR. ROTH-ROFFY: That's all I have.

23 PARTICIPANT: I'm okay.

24 PARTICIPANT: No further questions.

25 MR. YOUNG: This is Brian Young with the

1 NTSB again.

2 I know you were, you had a scope of your  
3 survey. While you were down in the engine room is  
4 there anything out of the ordinary you may have noticed  
5 that caused you any sort of concern that was extraneous  
6 to your survey?

7 MR. LaROSE: No, did not notice anything out  
8 of the ordinary.

9 MR. YOUNG: And the engine room, the general  
10 condition and overall condition of the engine room, how  
11 did you see it?

12 MR. LaROSE: For a 40-year-old vessel it  
13 was, it was good. It was clean. I didn't notice, like  
14 I said, I didn't notice anything out of the ordinary.  
15 No cause for alarm.

16 MR. YOUNG: Coming around the room, anyone  
17 else have any questions?

18 PARTICIPANT: No further questions.

19 PARTICIPANT: No further.

20 MR. YOUNG: Okay. Anyone else?

21 PARTICIPANT: Any type of questions?

22 MR. YOUNG: Yeah. Yeah.

23 PARTICIPANT: Any concerns of any wastage,  
24 corrosion?

25 MR. LaROSE: Not that I have seen, no. But

1 like I said, I was pretty primarily only in the engine  
2 room. I didn't anything in there.

3 MR. YOUNG: Anybody else?

4 Do you feel there's anything we didn't ask  
5 you? Do you have anything else to offer?

6 PARTICIPANT: This was further, for any type  
7 of?

8 MR. YOUNG: Yeah.

9 [REDACTED] Okay, I though of a question -  
10 - this is [REDACTED] with the Coast Guard -- just  
11 about to clarify the continuous machinery survey thing  
12 in my mind. So you mentioned every, you know, 20  
13 percent of the equipment every year. So the equipment  
14 that you looked at on this particular survey would it  
15 not be due again for another five years? Or are there  
16 certain, is there certain scheduling that's annual as  
17 well?

18 MR. LaROSE: It would be, to be credited in  
19 this fashion it would be credited for the next five  
20 years. But I mean the surveys, in during that time  
21 annual surveys, intermediate specials will require  
22 looking at a lot of that equipment again.

23 [REDACTED] Just not, maybe not to the  
24 same level as you do in this particular survey?

25 MR. LaROSE: Yeah. You're correct.



1 MR. O'DONNELL: Excuse me. Lou O'Donnell,  
2 ABS.

3 Also a clarification. There seems to be  
4 some confusion about the continuous routine survey  
5 cycle and the periodic survey cycle. It's the same  
6 period. It's a five-year period. However, we offer on  
7 the hull side for some vessels, and on the machinery  
8 side for all vessels, what's called a continuous survey  
9 cycle where they can spread out all the equipment they  
10 have in the engine room over a five-year period.

11 Target goal, 20 percent of the equipment per  
12 year. So they can spread out their maintenance.

13 Sometimes people do more or less. It's still all those  
14 items have to be looked at on that five-year periodic  
15 cycle but they can do it any time within that five-year  
16 period. And what that avoids is, say, on a periodic  
17 cycle, special survey of machinery, that means that at  
18 the end of that five years you're doing everything all  
19 at one time.

20 So it actually is a benefit to the owner to  
21 be able to have more time to do maintenance over a  
22 five-year period. And which most of our vessels are on  
23 this continuous machinery cycle. Is it --

24 PARTICIPANT: So that was clear.

25 MR. O'DONNELL: Right.

1 PARTICIPANT: I understood that.

2 MR. O'DONNELL: Right.

3 PARTICIPANT: But the question is if that  
4 particular equipment that's looked at on its one in  
5 every five -- right?

6 MR. O'DONNELL: Uh-huh.

7 PARTICIPANT: -- is it not looked at again  
8 until five years later?

9 MR. O'DONNELL: Okay. So what the  
10 clarification would be, it's a five-year periodic  
11 survey or would be like the major open inspect of an  
12 item. Okay. And then on the annual those items, a lot  
13 of those parts are part of the annual survey, those  
14 items would be operationally tested and visually  
15 examined at each annual.

16 [REDACTED] Okay. And then my only  
17 follow-up question -- again [REDACTED] with the Coast  
18 Guard -- were you the only surveyor on board this  
19 particular time or was there a team with you?

20 MR. LaROSE: No. It was just me.

21 [REDACTED] Just you.

22 So there was nobody looking at the water  
23 integrity, this was just a machinery inspection?

24 MR. LaROSE: That's correct.

25 [REDACTED] Machinery survey specifically.

1 MR. LaROSE: That's correct.

2 MR. ROTH-ROFFY: Not to belabor the point  
3 too much. Tom Roth-Roffy, NTSB. Regarding this 20  
4 percent, is that based on just numbers of pieces of  
5 equipment? Because some things like perhaps a boiler  
6 would take longer than a pump. Or is it based on  
7 number of hours it would take to survey that equipment?

8 MR. LaROSE: I don't quite understand how  
9 you mean?

10 MR. ROTH-ROFFY: Well, the 20 percent is  
11 intended to kind of, as you say, spread it out over  
12 five years. But how do you -- I'm having trouble with  
13 the question myself -- but is there any attempt to  
14 manage the spacing of this, this 20 percent continuous  
15 survey so that, you know, in fact the one year you're  
16 only doing 5 percent and the next year you're doing 50  
17 percent, to kind of spread out this five-year survey?

18 MR. MILLAR: If you'd let me clarify?

19 MR. ROTH-ROFFY: Please. Mike Millar,  
20 safety, since you're an expert in this area.

21 MR. MILLAR: This is Mike Millar with ABS.

22 And the 20 percent is probably a goal that  
23 the client may want to do: I want to spread my  
24 maintenance out. We make the decision as to what  
25 pieces of machinery need to be credited during that

1 five-year cycle. And, you know, if you've got three  
2 generators, two turbines, they may say, look, we're  
3 going to do a turbine, the turbines in the dry dock.  
4 And then we're going to do the generators in the off  
5 years when we're not in the dry dock.

6 And those, obviously, are significant  
7 resource time but if they still want to carry out their  
8 20 on their pumps and their lights and the stuff  
9 they're looking to get tested during that, the 120  
10 items on the list of machinery, it's really up to them  
11 as long as they complete all of those items during that  
12 five-year cycle.

13 Does that help clarify?

14 MR. ROTH-ROFFY: Yes, it does. Thank you.

15 MR. O'DONNELL: Further on the topic. Lou  
16 O'Donnell from ABS on top of Mike.

17 We have a very robust system to track that:  
18 the last time the piece was done, the previous date,  
19 when it's due again. We have a very, very robust  
20 system to track that which the owner also has access to  
21 which allows him to schedule, schedule his maintenance  
22 or when he would like to do those items.

23 And I should have clarified myself. 20  
24 percent is a goal. Some years you might do 5, another  
25 year you might do 35, and then another year you might

1 do 15. It's up to the owner. But they, those parts  
2 all have to be done. And if you do, say, pump, bilge  
3 pump number 1 today, five years, no more than five  
4 years from this date it needs to have it's five-year  
5 periodic inspection again.

6 MR. ROTH-ROFFY: Okay. My first question  
7 was related to how that 20 percentage is established,  
8 just by the piece of equipment or the number of hours  
9 that are needed to survey it?

10 PARTICIPANT: It's pieces of equipment.

11 MR. ROTH-ROFFY: Just a number, numerical  
12 point. Okay.

13 PARTICIPANT: Yes.

14 MR. ROTH-ROFFY: Thank you. That's all I  
15 have.

16 MR. YOUNG: This is Brian Young with the  
17 NTSB to belabor the point.

18 Before you came to the vessel that day did  
19 you know what piece of machinery you were going to  
20 inspect or did it just kind of pop up when you arrived  
21 on board the vessel?

22 MR. LaROSE: No, we have access on our  
23 system, as Lou stated. We have a survey manager. I  
24 went on, the survey manager pulled up the status, and I  
25 could see the dates and what was due. And then I could

1 check which ones were due by when. So I knew basically  
2 which ones I needed to -- which ones needed to be  
3 credited then.

4 And then we left it up to the crew, if they  
5 had anything extra they wanted to get credited, they  
6 could do that. But we basically just went through what  
7 was close. We checked those items.

8 MR. YOUNG: And what is the window in terms  
9 of time frame for things to re-do?

10 MR. LaROSE: Well, it's every five years.  
11 So like Lou said, if we did the bilge pump today, five  
12 years from today it's due.

13 MR. YOUNG: So if it was --

14 MR. LaROSE: If they do it in 4 years and 11  
15 months, then that would be the new date. It's based on  
16 the credit date of whenever the last, the last time it  
17 was looked at.

18 MR. YOUNG: So if I had something due in  
19 October, what's the earliest I could do it and what's  
20 the latest I could do it? Is there a window around the  
21 due date?

22 MR. LaROSE: No. The due date is the end  
23 date. You can do it up until that date.

24 MR. YOUNG: Could I do it earlier?

25 MR. LaROSE: Yes.

1 [REDACTED] [REDACTED] with the Coast Guard.

2 If something does go past due, do you -- how  
3 do you guys receive notification of that and what are  
4 the consequences of that?

5 MR. LaROSE: I think the vessel can request  
6 an extension which would be looked at as on a case by  
7 case basis and then sent to Lou's office for  
8 confirmation if that's allowable.

9 [REDACTED] So do you have a system that  
10 notifies you which vessel has got a piece of equipment  
11 that's gone past five years; how do you know that?

12 MR. LaROSE: Our system will show us that.

13 [REDACTED] It shows a status report?

14 MR. LaROSE: Uh-huh. It should be in the  
15 status report and if something's overdue it will tell  
16 us.

17 [REDACTED] Thank you.

18 [REDACTED] [REDACTED] with the Coast  
19 Guard.

20 Do you have to go into the system for each  
21 vessel and look for it? Or does it just automatic flag  
22 or alarm for you that you have a vessel that's overdue?

23 MR. LaROSE: It wouldn't come to, like it  
24 wouldn't come to my desk directly, but the system would  
25 send something to the owner to let them know. And then

1 it would come that direction.

2 And then if we went to, if I went to open a  
3 work order on a vessel and it had something that was  
4 overdue then it would then pop up and show us.

5 [REDACTED] And who -- is there a  
6 responsibility to notify the Coast Guard of anything  
7 that's overdue, whether it's yourself or ABS management  
8 or at what point would the Coast Guard be notified if a  
9 piece of equipment was over the five-year period? Or  
10 is there any special requirement?

11 MR. LaROSE: I'm not quite, not sure on  
12 that. Maybe Lou.

13 [REDACTED] If that's not the subject of  
14 this interview we can touch that on a different  
15 interview.

16 MR. LaROSE: Okay.

17 MR. O'DONNELL: Lou O'Donnell with ABS.

18 There's no, there's no requirements to  
19 notify you for overdue machinery parts. However, when  
20 you get your notification that the surveyor is going on  
21 board to do the survey, if there were major items or  
22 COC's, you all have access to the same survey manager  
23 that Mr. LaRose is speaking of.

24 And if there are significant items, you  
25 would be advised.



1 [REDACTED] Thank you.

2 [REDACTED] [REDACTED] with the Coast Guard.

3 Is this system in any way related to the  
4 alternate compliance program? Is that why you're in --  
5 is this way to find your cycle or is it a completely  
6 different thing?

7 MR. LaROSE: No, it's -- yeah, it could be  
8 any, any vessel could be on this.

9 [REDACTED] To better frame my question, are  
10 any of these surveys triggered by the vessel being in  
11 the Coast Guard's alternate compliance program or is  
12 this stuff that would be done even if it was in the  
13 alternate compliance program?

14 MR. LaROSE: Yeah. No, these are standard  
15 surveys.

16 [REDACTED] Okay.

17 MR. LaROSE: Any vessel would have it.

18 [REDACTED] And that doesn't tie into the  
19 fact that the vessel's in that program --

20 MR. LaROSE: No.

21 [REDACTED] -- for the Coast Guard and ABS?  
22 Thank you.

23 [REDACTED] with the Coast Guard. Just one  
24 other follow-on to that.

25 ABS gets a piece of equipment that's past

1 due, ABS doesn't have the authority to do anything to  
2 stop the vessel from getting under way if you know it's  
3 delinquent? You guys don't have any authority or any -  
4 - there's no consequences on behalf of ABS if a vessel  
5 is sailing beyond their limit of their surveys?

6 You guys can't -- I mean how would you guys  
7 deal with that situation? Can you guys call and say,  
8 okay, this vessel is not getting under way?

9 What authority do you have as surveyors to,  
10 to exercise over these vessels if they're not in  
11 compliance with your program, is what I'm asking?  
12 Anyone from ABS can answer that.

13 MR. O'DONNELL: Lou O'Donnell with ABS.

14 That's a bit of a loaded question. Are we  
15 talking about surveys outside, overdue from their  
16 window?

17 [REDACTED] Yes.

18 MR. O'DONNELL: Or is it like, like an  
19 annual or something or a special survey due what we're  
20 talking about?

21 [REDACTED] Yes.

22 MR. O'DONNELL: Okay. If a survey becomes  
23 overdue, class survey, and it's not completed within  
24 the window or by the due date, the vessel would  
25 immediately become class suspended.

1           The owner receives a message. We have a  
2 separate notifica -- electronic notification system  
3 which I'm sure Jim is very familiar with. And usually  
4 when owners see that first letter it's something that's  
5 kind of -- they get it before things are coming due.

6           They start at three months and then two  
7 months, one month. And then if they're, you know, if  
8 they're in a six month renewal they can go three months  
9 beyond. You know, they get the due date and then on  
10 the back end a month overdue, two months overdue. And  
11 then that last letter, the one that's going to come  
12 Certified Mail and it's going to go to them  
13 electronically and tell them that they're class  
14 suspended.

15           So, again there we have a very robust  
16 notification system.

17           ██████████ Thank you.

18           MR. ROTH-ROFFY: Tom Roth-Roffy, NTSB, just  
19 to follow up on that line of questioning.

20           Can you tell us if TOTE has been issued any  
21 of these such letters regarding their survey status?  
22 What can you provide as documentation in this regard?

23           MR. O'DONNELL: Lou O'Donnell with ABS.

24           I would have to go back and search through  
25 the record. But I can do that.

1                   MR. ROTH-ROFFY: We'd care to pursue that if  
2 you would make a note of that.

3                   MR. O'DONNELL: Yes, sir. Will do.

4                   MR. YOUNG: Any other questions?

5                   (No response.)

6                   MR. YOUNG: Is there anything you have that  
7 you want to ask us? Any questions you want to ask the  
8 team?

9                   MR. LaROSE: No.

10                  MR. YOUNG: No. And as you know, we're  
11 looking into the reason of the sinking. And if there's  
12 anything you can think of, just please let us know.  
13 And I'll give you my card before you leave. And if  
14 there's anything you can do to assist us in this  
15 investigation, we'd appreciate it.

16                  Appreciate your time coming down here. And  
17 thanks for all your help.

18                  MR. LaROSE: Okay. Thank you.

19                  MR. YOUNG: We'll conclude the interview.  
20 The time is 13:59.

21                  (Whereupon, at 13:59, the interview was  
22 concluded.)  
23  
24  
25

**A**

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C E R T I F I C A T E

MATTER: El Faro Incident  
Accident No. DCA16MM001  
Interview of Mark LaRose  
Jacksonville, FL

DATE: 10-10-15

I hereby certify that the attached transcription of page 1 to 52 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

-  -

**NEAL R. GROSS**

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**Office of Marine Safety  
Transcript Errata**

**Matter: El Faro  
Ref #: DCA16MM001**

**Mr. LaRose:**

Enclosed with this letter is a copy of the transcript of interview for Mr. LaRose taken on 10/10/2015. Kindly review this transcript for accuracy and provide corrections, if any, in the attached table.

Thank you in advance for your attention to this matter.

**11/3/2015  
Date**

**Brian Young  
Major Marine Accident Investigator**

TABLE OF CORRECTIONS TO TRANSCRIPT OF INTERVIEW FOR

Mark LaRose

TAKEN ON

10 October 2015

PAGE NUMBER	LINE NUMBER	CURRENT WORDING	CORRECTED WORDING
5	22	Mersk	Maersk
8	3	ND	NDE
8	17	dynamic digiting	dynamic positioning
8	18 & 19	L&G	LNG
10	1	EEE	El Faro
20	17	Mr. LaROSE	*The question was not asked by me*

If, to the best of your knowledge, no corrections are needed kindly circle the statement "no corrections needed" and initial in the space provided.

NO CORRECTIONS NEEDED. \_\_\_\_\_  
Initials

Mark LaRose  
Printed Name of Person providing the above information

 \_\_\_\_\_  
Signature of Person providing the above information

12 November 2015  
Date