

**City Council Transportation Committee
Hearing on Tramway Incident of April 18-19, 2006**

Transcript

Councilmember John Liu (Chair): Welcome to today's hearing of the City Council's Committee on Transportation. My name is John Liu and I have the privilege of chairing this committee. Let me advise all the members of the public that you're all welcome to testify, that this hearing is expected to run about two and a half hours. If you do wish to testify, please note that you do have to approach one of the Sergeant at Arms or raise your hand for one of these forms that you can fill in so that we will have you on the speakers list. Thank you for that little bit of housekeeping.

We are convened this morning for the purposes of understanding more about the Roosevelt Island Tram, whether or not it is operating at peak efficiency and safety. And this hearing has been convened in the aftermath of the April 18 incident where the Tram was disrupted and 68 people were left hanging mid-air over New York City for many, many hours, some up to eleven hours. It was a dangerous situation; it kept New Yorkers on edge. We certainly want to commend the New York City Police and Fire Departments, the emergency services for rescuing everybody and that there were no injuries sustained. Nonetheless, immediately after this incident, there were calls by certain high officials that perhaps the time has come for the Tram to go. That's not acceptable to this committee and that is why we're holding this hearing quickly, to make sure that every effort is being made to get the Tram up and running as soon as possible, of course, with all safety precautions in place.

We need to understand exactly what caused the disruption of April 18, and we need to get the Tram back up and running. The Tram is an integral part of our – New York City's – transportation network. The people of Roosevelt Island, many many thousands of them, rely on this as a way to get around the City, and so we need it up and running again. We will not accept any calls for the discontinuation of this Tram because it is vital and we want to make sure that the issues surrounding the disruption on April 18 are highlighted so that disruption are minimized and, if possible, eliminated in the future. We have many people for... who want to speak today, including Herb Berman, a former Councilmember and the head of the Roosevelt Island Operating Corporation; we want to thank him for coming this morning.

We are departing slightly from general practice and protocol; I want to thank former Councilmember Berman for the privilege here. We are honored and delighted to be joined by former Mayor David Dinkins, who is a frequent user of the Roosevelt Island Tram. And we are going to take his testimony first.

Let me introduce the Councilmembers who are present with us: Councilmember Michael McMahon, Councilmember Miguel Martinez of Manhattan, Councilmember Darlene Mealy of Brooklyn, Councilmember Daniel Garodnick of Manhattan, Councilmember Jessica Lappin, and I want to thank the staff of this committee for putting together all this work on a very quick and timely basis: Phil Haum, our Legislative Counsel, and Roberto Doan, Special Projects Coordinator for the Infrastructure Division of City Council, and all the other staff members who were involved.

I turn the floor over to Councilmember Jessica Lappin who, from the moment this incident began to unfold, was a very strong proponent of finding out what happened and getting that Tram back up and running for so many thousands of people, New Yorkers, who rely on it. Councilmember Lappin.

Councilmember Jessica Lappin: Thank you, Mr. Chairman. I want to thank you and your staff for agreeing to host this hearing, and our Speaker, Christine Quinn. We're here today because last Tuesday, 70 New Yorkers were stranded on the Roosevelt Island Tram. And I want to thank the rescue workers who did such a good job rescuing the people who were stuck [UNINT]. But we need to find out what happened; we need to assure that the Tram is safe and reliable, make sure that it is up and running as quickly as possible.

The Tram is to Roosevelt Island what the Bridge is to Brooklyn. It is a critical part of the Island's transportation infrastructure and culture. It's not just a unique City icon, but an essential way for commuters to get on and off the Island. You may have seen it in episodes of *Fear Factor* or in the movie *Spider-Man*. It's listed in guidebooks and does drive economic development, but much more importantly, it is a vital mode of transportation for the Island. In particular, a significant senior and disabled population rely on it each and every day and, in fact, just in March alone, over 129,000 New Yorkers rode the Roosevelt Island Tram. Some pundits have said that, since last Tuesday, the Tram isn't necessary, and those pundits are dead wrong. Roosevelt Island is just that – it's an Island – and when we talk about its public transportation, we need to talk about redundancy.

After the Staten Island Ferry tragedy in 2003, the Ferry was back up and running within a week. Roosevelt Island residents deserve no less. We cannot allow the Governor to treat Roosevelt Island and the residents there as second-class citizens. This can't be used as an excuse to shut the Tram down, and Governor Pataki cannot be allowed to abdicate his responsibilities to this State.

If we can put a man on the moon, we can run the Roosevelt Island Tram safely. Thank you very much.

Liu: Thank you, Councilmember Lappin. Let me note that we're also delighted to be joined by the Honorable Pete Grannis, the member of the State Assembly who represents Roosevelt Island. Thank you for joining us.

Without further ado, we'll turn the floor over to Mayor David Dinkins. It's a pleasure to have you here.

Former Mayor David Dinkins: Thank you, Mr. Chairman. I thank you, sir, and I particularly thank my Councilmember, Jessica Lappin, for making me aware of this hearing and that's why I'm here. And I want to thank my friend, Herb Berman, for permitting me to go first. I know the custom would be for his agency – for him – to speak first, but he's a old friend and he permits me to come. I'm joined by Joyce Mincheff, who is a former secretary to the Roosevelt Island Residents Association, formerly chair of its housing committee. She also formerly was Chair of the Beacon there and, as some of you know, the Beacon School started during our administration; it's something I care a great deal about. Parenthetically, let me just say that she's involved in New York Junior Tennis League.

Now, that's not the sole reason that I support continuation of the Tram. Really, as I listen to the Chairman, as I listen to Jessica Lappin, I don't really have anything further to say. They have said everything I would wish to say. I was disturbed, of course, when we had a problem there last week and, I was particularly concerned when the suggestion of some was that perhaps we didn't need a Tram anymore. Well, you've got about 9,000 residents on the Island; they hope to have ultimately about 16,000, and among those residents there are children, and I'm told that about half of the student population of that Island goes to school off the Island, most of them in Manhattan. And the buses that they take do not come onto the Island. They pick them up at Second Avenue and 59th and 60th Streets.

There are lots of reasons for continuing this. And I think we also ought to put the lie to the suggestion that, somehow or other, tax money is involved here. That's not the case. I'm given to understand that the Roosevelt Island Operating Corporation – that they raise the monies through leasing and whatnot, and that there's no tax involved. And so for residents of the rest of the City, particularly, not Manhattan and not Roosevelt Island who seem to think somehow that their tax dollars are being used because there's a deficit. That's just not true. So I hope that this committee, with its great influence under its dynamic chairman, will make the point so that everyone understands that there is a need to continue this Tram.

The only thing I'd like to add further is that it adds something further to tourism, too, and we all know that tourism is big business in our City, and there are lots of folks – I see them coming every day – bunches of them – and those tourists help to support some of the industry that otherwise would not be on that Island. Indeed, I'm told now that you can't even buy a pizza on the Island, and that might not seem like a great moment to many, but a lot of kids take the Tram over to Manhattan for that purpose alone. But as we continue the Tram, and as we continue tourism, enough people will come to support businesses like that.

So those are my comments. I would stay, as Joyce speaks, and if you have questions of me, I'd be happy to be responsive.

Liu: Thank you very much, Mr. Mayor. We have also been joined in this hearing by Councilmember Oliver Koppell from the Bronx.

Well, Mr. Mayor, you have been very clear and explicit in your wishes and your thoughts on this issue and, even though some of the thoughts may already have been voiced by members of this committee, it is that much more important coming from you.

Dinkins: Thank you, sir.

Liu: Thank you very much.

Dinkins: Thank you.

At this time, we will proceed to the next witness, there being no questions. Oh, I apologize. You have a statement, as well? Press the button so the red light is off.

Joyce Mincheff: I think that it's working. Can you hear me?

Liu: Just pull it closer to you.

Mincheff: I want to say thank you, wholeheartedly, for your support, all of you, on behalf of... for my neighbors who are sitting behind me.

Liu: Pardon me, I know that the Mayor already did so, if you could identify yourself.

Mincheff: Yes, my name is Joyce Mincheff. I'm a longtime resident of the Island. I have lived there longer than the Tram. I lived there from about four months before the Tram opened, and I've been involved in many Island activities, including having been involved in the Common Council, being the secretary for the Common Council and other things, as well, that have involved me in community activities. So I hope to give you just a slight perspective – obviously, I'm in support of keeping the Tram, but I'd like to mention just a couple of things from the perspective of Island residents that might help to get the point more solidified and, of course, to thank David Dinkins for his kind words today and for his wonderful support of our community.

The community was created with a specific emphasis on having housing for disabled, for elderly, and for children, and this population is best served by the Tram. It's very difficult for us to get access. Our train is ten flights down and, oftentimes, our escalators aren't working properly and it's very very difficult and it's very frightening sometimes for our elderly population to be riding the trains, particularly late at night. And for that reason, the Tram is essential transportation. Also for our children, who Dave Dinkins mentioned, are school age. Many of them go off-Island and it is absolutely essential, but also the fact that the Tramway actually makes us part of Manhattan. If we don't have the Tram, we're disenfranchised from Manhattan, of which we're a part, and the property values that support our infrastructure, and the land leases that contribute to maintain the services on Roosevelt Island, are being charged to our developers based on Manhattan pricing, and without this vital link that makes our population immediately accessible to Manhattan, we technically would no longer be in Manhattan and therefore, because we have very few services on the Island, as Mayor Dinkins said, we no longer can get pizza or an ice-cream cone, so for our children, hopping on the Tram and getting simple things that most people consider to be just neighborhood activities, is not possible without that Tramway, so I sincerely again appreciate your time and your consideration in support of our Tram.

Liu: Thank you very much for those useful comments. Thank you, Mr. Mayor.

Dinkins: Thank you all.

Liu: At this time it's the committee's pleasure to welcome back to these chambers the former member of this body, Councilmember Herbert Berman, who is now president of the Roosevelt Island Operating Corporation. Good morning, Mr. Berman. Welcome.

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Berman: Good morning, Mr. Chairman. Thank you. May I proceed?

Chairman Liu, Councilmember Lappin and colleagues, let me thank you for this opportunity to testify about the events of April 18th on the Roosevelt Island tram. My name is Herb Berman. I am president of the Roosevelt Island Operating Corporation; that's the state-created public benefit corporation that has overseen Roosevelt Island since its creation in 1984. On a very personal level, I have spent much of my career in this very chamber, as you all know, though of course, for most of it, I was on your side of the table.

I am joined today by Catherine Johnson, RIOC's Vice-President for Operations, and Mark Bee, vice-president of Doppelmayr Company, which built and operates the tram.

While we are awaiting the findings of the investigation into events leading to the tram incident, let me give you some background information on Roosevelt Island and how the tram operates. We have provided some technical details, as we know them so far, in separate documents submitted to your committee.

The most important thing to report is that the safety systems installed on the tram, and the extensive training RIOC employees receive to handle emergencies, together with the Fire Department and the police, worked well. The proof is in the safe removal of the 68 passengers stranded on the trams over the East River and First Avenue.

Of course we share the frustration of those stranded on the trams over how long the rescue took, but as Mayor Bloomberg said so eloquently, safety was more important than speed. The lack of injuries to anyone involved is a testament to the skill and bravery of police officers, firefighters and our own RIOC tram staff, Tram team, who worked through the night.

What we now know as Roosevelt Island was called Minnahannock Island by the Algonquin Indians. That was before the Dutch purchased it in 1637. It went through various names and identities in the first decades of European control, including one in which it was named after an owner named Captain John Manning. And I've been thinking lately of Captain Manning, since he was slated to be executed at City Hall after surrendering the island to the Dutch in 1673. His death sentence was commuted on the day he was to be executed, and he was sent into exile on Roosevelt Island, but only after his sword was broken over his head at City Hall.

The City of New York purchased the island, then called Blackwell Island, in 1828 as the home for institutions such as prisons, mental hospitals and nursing homes. Renamed Welfare Island in 1921, it continued as a repository for these types of institutions. But in 1968, Mayor John Lindsay formed a commission to look into the future of the island.

In 1969, the New York State Urban Development Corporation signed a 99-year lease with New York City to develop the island, using a master plan designed by architects Philip Johnson and John Burgee as its guideline. This plan called for a mixed-income community of 20,000 people living in 5,000 units in a largely traffic-free environment. The plan was later amended to lower the intended density on the island, but its general principles in promoting a model mixed income community remains in effect today.

In 1984, the state created RIOC to take over operation of the island. Today, we are a financially self-sufficient island, in fact a model of fiscal prudence recognized around the state and nation. As a general description, RIOC owns the land on the island during the period of our 99-year lease. Each of the apartment buildings is privately owned and developed through a ground lease negotiated between RIOC and the building owners.

Roosevelt Island remains a jewel of the city, home to over 9,000 people living in a nationally-recognized model mixed-income community on a historic island in the middle of the East River.

The benefits of living and working on Roosevelt Island are many. The island has six historic landmarks, several spacious parks – as a matter of fact, we've just committed \$4 million, in partnership with the State and the City, for construction of Southpoint Park, which we believe will become a major destination on Roosevelt Island – sports facilities, numerous playgrounds, a waterfront promenade, and unparalleled views of Manhattan.

And it has the aerial tramway that first operated in – that first opened in 1976 – to provide residents of the island direct access to Manhattan. The tram was intended as an interim mode of transportation for island residents until the completion of the subway stop that was opened in 1989. Over the years, more than one million trips have been made safely across the East River, offering viewers – riders – vivid views of the most spectacular urban vistas in the world.

Today, about 5,000 passengers enter the F train station on Roosevelt Island [daily], and many more use express bus service to Queens Plaza. There are approximately 2,000 round trips a day – that's about 4,000 trips a day – which recorded on the tram, which operates at a deficit covered from RIOC's operating budget.

But the tram proved itself valuable far beyond its average daily ridership during the recent transit strike, when it remained running while the subways shut down. Our ridership peaked at 10,500 on one day of that strike, as commuters drove from Queens onto the island in order to reach Manhattan. It was a vivid example of the value of multiple transportation options.

Well before this incident occurred, RIOC had begun planning to overhaul and modernize the tram system. The RIOC board has approved a \$3.9 million plan to upgrade the tram, with about \$1.2 million slated to be spent in this fiscal year. That is a signal that RIOC is fully committed to

returning the tram to operation, once we are convinced we can do so safely for the benefit of our residents and riders.

At the same time, it is appropriate to start a dialogue about future transportation options for the island, including the inauguration of water-taxi service to Manhattan that has proven so successful in other parts of the city. We look forward to working with residents and elected officials as these discussions go forward. We believe that we have to have the options, and certainly the options include the Tram, the subway, the buses, and should include the water-borne ferries.

In 1976, when the tram opened, it was state-of-the-art for its time, using Con Edison electricity to power the tram through what is called a Motor Generation system, or MG set. In 1994, the system was updated to the state-of-the-art at that time with installation of a system called a Silicon Rectifier Control, or SCR system.

At that time, we decided to keep the MG set system in place as a redundant back-up power system. In addition to the main power sources, the Tram has two other levels of back-up safety systems in case of an emergency. There is a diesel system designed to provide enough power to bring the tram cars back to its base, and the rescue tram system permanently installed to effectuate just the kind of rescue that you observed on April 18th.

These systems are integrated with a set of safety controls that are designed, among other things, to conduct an automated review of the entire system each time the operator pushes the button to begin a tram trip. One of those systems is designed to stop the tram cars in their tracks by activating the emergency brake in case of the kind of power interruption we experienced on April 18th.

And that is exactly what happened on April 18th. The SCR system suffered a fault that knocked out the 800-amp fuses. That caused the emergency brakes to activate as designed. The problem came when the independent controls for the back-up diesel system failed to release the emergency brake, leaving the trams stranded mid-trip unable to return to the station.

As you know, the old MG set system, which we had elected to retain as a redundant back-up was not operating. We had committed late last year to restoring the damaged motor generator that powered its operations. The motor generator today is being repaired in a Connecticut repair shop, where technicians are having to handcraft replacement parts for the 30-year-old machine. We expect it to be returned and put back into operation this summer.

Exactly why the main power source was interrupted, and why the back-up diesel system did not operate on that date as intended, is the focus of investigations by the state Department of Labor and by our own internal engineering systems.

But while we are not yet sure what went wrong, it is worth noting what went right.

RIOC personnel train every six months on that rescue tram system, which has never had to be used before in the 30-year history of the tram. That I cannot say enough about the skill and the dedication that our employees brought to the emergency rescue cage operation, one they train on, as I said, every six months, but which had never, which I also indicated, been put in operation in the history of the Tram. RIOC workers attached arms to the emergency cage, which is permanently stationed below the Tram's main arrival station, and then operated the winch to lift it onto the cable. Working closely with the heroic police officers and the heroic firefighters, the cage was tested and then was sent up the cable to safely remove 47 people from the car stranded over the East River. Twenty-one people stranded over First Avenue were safely removed after City officials brought in a crane to carry out that rescue. And again, I can't say enough about the

remarkable poise, resilience, and equanimity of the people who spent all those hours stranded on the Tram. They demonstrated the best qualities that make all of us proud to be New Yorkers.

At RIOC, we are committed to providing a safe environment to all of our residents, whether on the island or on the tram. We stand ready to work closely with you and others, especially including residents, to examine the future of the tram as well as transportation alternatives, such as ferry service, as development and growth continues on the island.

I might say that, once the Tram went down, we instituted an express – using our Roosevelt Island buses – an express service from Roosevelt Island to Manhattan for the residents so they will be able to have access to the Manhattan side of the Tram. And the children who go to school there have the same privileges that they had on the Tram. Having said that, I thank you for the time. We stand here ready to answer whatever questions we can. I can assure you that upon receipt of the information from the investigatory services looking into this incident, we will supply you with those results. But I want to again emphasize that we are committed to the restoration of the Tram to service. That will happen when all of the investigations are completed, when everything is corrected that has to be corrected, all protocols are examined, and we are confident that everybody else is confident that the Tram can safely and properly go back into operations.

Mr. Chairman, I thank you and we stand ready to answer whatever questions we possibly can.

Again, Catherine Johnson, vice president of operations, and Mark Bee, vice president of Doppelmayr, the company that operates the Tram for us.

Liu: Thank you very much for your testimony this morning. Thank you very much for your willingness to answer questions.

We note that we've been joined by Councilmember Andrew Lanza from Staten Island.

Mr. Berman, is there a time frame for completion of the investigation, a time frame, more importantly, for restoration of the service?

Berman: No, we await the response from the Department of Labor. We await the responses from completion of the tests, the load tests, and everything that have to be done. So I hope that they are soon, and I'm confident that as soon as they complete them, that they'll report to us. But we'll let you know as soon as we receive them.

Liu: Certainly, no one suggests that the Tram should be put back in service without all the precautions...

Berman: We certainly agree.

Liu: But nonetheless, it would be helpful to give the residents some kind of time frame. So, at this point, there doesn't seem to be any kind of time frame for the completion of the investigation. If at all possible, the committee would urge you to talk to the investigatory agencies involved and ask them for some kind of approximate time frame so people can get a better idea.

Berman: I will certainly attempt to get that for you, Mr. Chairman.

Liu: So the service came to a halt just before 5:00 p.m. on the 18th. That's correct...?

Berman: Yes, sir.

Liu: A little before 5:00 p.m. How long did it take to get the backup diesel system going? Was it like an hour, or...?

Berman: Are you talking about the rescue cage?

Liu: No, I'm talking about... In your testimony, you stated that after the Tram came to a halt, the backup system, after the SCR system suffered a fault that knocked out – that basically brought it to a halt – the backup diesel system came on line, but it wasn't able to release the emergency brakes. So the backup diesel system – how long did it take for that backup system to kick into gear?

Mark Bee (Vice President, Doppelmayr): Let me respond to that. Again, I'm Mark Bee, vice president of Doppelmayr. From looking at the log, the shift supervisor that was on duty at the time, first attempted to engage the backup diesel system approximately 12 minutes after the original stop. There was a fault in the backup system and he was ultimately not able to get it operating. The manager came on site; he was also not able to get that system to operate; they tried to go back to the electrical system and they couldn't get that system to operate. By that time the decision was to put the rescue tramway into service. So the backup diesel that's intended to pull the cars in, we never got that working that night. After everyone was off the cars, the next morning, about an hour and a half later, we got the backup diesel system to bring the cars in.

Liu: I guess it's a little unclear. What was stated in the prepared testimony was that the Tram came to a stop and then at some point after it stopped, the backup drive system, which is a diesel system, went into operation, but it couldn't actually drive the Tram cars because the emergency brakes could not be released, so that's my question: How long did it take, between the time the cars stopped and the time the backup drive system run by diesel went into gear, even though it was actually unable to move the cars?

Bee: I don't have an exact time for that. Looking at...

Liu: Approximate.

Bee: ...the fault log I would say it was within 30 minutes of the stop that we had the backup system running, but were unable to get the brakes to lift.

Liu: OK. So it's about half an hour, roughly speaking. That's fine. And then, because it was a little over three hours before a decision was made to call in – to make a rescue effort. So it was about two and a half hours trying to get the emergency brakes released.

Bee: Well, the shift supervisor attempted to start and run the auxiliary drive – the diesel engine – the brakes didn't lift and shortly thereafter the Tram manager arrived on the scene. He worked with the shift supervisor to try to get the auxiliary to work. They spent some time doing that. I don't have the...

Liu: But what was it? What was wrong? Was it the auxiliary drive was not working? Was it that the auxiliary drive was working but the brakes wouldn't release.

Bee: Well, the auxiliary drive is a system that includes a diesel engine; it includes hydraulic components; it includes controls that are all separate from the main drive. The diesel engine itself did start. There's a series of controls that have to – you have to be able to pass certain safety checks before the system will lift the brakes...

Liu: So, in other words... See, that's the confusing part. I mean, there are kind of different

reports. I just want to get a better understanding. Because this is germane to how we consider the system has been maintained and operated over the years. The drive system – the backup drive system – was engaged about 30 minutes after the initial stoppage.

Bee: That's correct.

Liu: But it could not move the cars because the emergency brakes would not release.

Bee: That's correct.

Liu: So was the drive system operational except for the fact that the emergency brakes could not be released, or was the drive system itself not fully operational?

Bee: The drive system itself was fully operational. But there was a problem within the controls for that system that failed to close the relay that was necessary to open the brakes before the Tram cars could actually move.

Liu: Well, but the Tram cars did move for a little bit, and then it grounded – ground to a halt again.

Bee: The...

Liu: So the backup system, backup drive system was able to move the Tram cars, according to the reports, about 75 feet, and then the emergency brakes kicked in.

Bee: What the operator had done at that time was – there's a way to manually open the brakes. And when he manually opened the brakes, just because of gravity and where the cabins were, the cabins moved about 30 meters on the line. But he wasn't able to manually hold the brakes open and at the same time run the diesel standby unit, because of the safety systems built into the system, it wouldn't allow you to manually open the brake while at the same time engaging the standby. So it's correct that the cars did move a little bit, but they moved only because we were able to manually lift the brakes without the diesel system connected, and the cars coasted to the, basically to the low part of the line.

Liu: So gravity moved them...

Bee: Gravity moved them, yes.

Liu: ...the Tram cars. And then after the – what – couldn't you just get another person to hold the emergency brakes open while the first engineer operated the drive system?

Bee: Well, that would be relatively safe while the cabins are between the spans, where it's not steep. Once they cross towers 1 and 3 it becomes very steep, and you would not want to rely on a manually held-open brake and an operator who's down in the basement in the machine room, who cannot really see the cabins.

Liu: So that suggests it was not actually the brake system that was defective. It was really the drive system?

Bee: It was the controls that open the brakes were not...

Liu: I mean, you're saying that it would not have been safe to have a second set of hands holding the brakes open while the drive system was moving the Tram cars because the drive

system was not actually working. You did not want to let the Tram cars start their descent back into the stations. So, I mean, we're just trying to understand, was it the backup drive system that was defective, or really the emergency brakes that couldn't be released, that kept the people up in the air for eleven hours.

Bee: Well, we're still investigating the whole system, but what we don't want an operator to do is to go into bypassing certain safety systems when we have passengers on the cars. I think Armando, who was on-site at the time, made an excellent decision to stop trying to bypass safeties and go to a safer mode to get the people off, which was to allow the fire and the police and the rescue tramway to operate to pull people off. There's all kinds of things that could've been tried, some may have been safe, some may not have been safe, but we're stuck with the existing protocol, which says that, if we don't have the system working properly, we don't start putting jumpers on...

Liu: I mean, the important thing is that nobody was hurt. It just seems like... It's just actually very apparent from the statements that the defect was in the backup drive system and not the emergency brakes, and if it was in the backup drive system, what kind of maintenance, what kind of routine inspections are made of that backup system, what kinds of tests are run on that system to make sure that it is operational?

Bee: Well, currently, we test the system on a monthly basis. It was last tested on March 31st, and we test and log it every month. On March 31st, the system worked perfectly.

Liu: And so that's the big mystery right now – that in the 18 days, we're not sure what happened, where on the 31st of March the backup drive system was operational, and then on the 18th, it wasn't working properly.

Bee: That's correct, and that's what we're planning to investigate.

Liu: Over the last few years, there have been a number of disruptions of the primary drive system, and in fact, according to the information that the RIOG graciously provided, we have half a dozen disruptions in the SCR drive, the primary drive system. Doesn't that suggest that – well, what does that suggest? Would you consider that normal – that there'd be half a dozen in as many years, disruptions of the primary drive system, or is that something that requires more attention and better assurances that the backup system is fully operational.

Bee: Well, the SCR drive system is a complex device that has lots of circuits and lots of safety systems, and it's not unusual that they fault occasionally. If there's any spike in the power line, if there's anything outside of normal parameters, there are certain systems connected to it, like we have a DC generator, a taco-generator to monitor the motor speed... All these systems, if there's noise coming on any of those lines – electrical noise – whether it came from the power grid or internally – those can cause a fault. So it's not unusual to cause occasional faults. For the most part they can be reset with a button and the system will continue to operate.

Liu: What is a fault? Is that a blown fuse?

Bee: A fault can even be less than a blown fuse. In most cases, the faults that you have on the list didn't involve blowing fuses. The system shut itself down properly without any fuses blowing.

Liu: And these faults, are they just a phenomenon to be accepted as a matter of reality, or are there measures that can be implemented to minimize these kinds of faults, shall we say? I think many people today are aware of the damage that power surges can cause, particularly to the

computers that people use on an everyday basis, and so, it's easy for people to buy the power surge – the surge protectors that protect their sensitive equipment. The Roosevelt Island Tram is probably another example of sensitive equipment. Are there any surge protectors that are available for a system this size?

Bee: Well, I don't know about... I know what you're talking about on a computer device. It includes a battery and...

Liu: Electrical current is electrical current. On a different scale, it's still electrical current.

Bee: Yeah, but it's 1,600 amps instead of 10 amps. And so I don't know of a comparable device that would do what your computer surge protector...

Liu: There's nothing available to protect against surges.

Bee: There's other technology.

Liu: Is there anything that's available to protect the Tram system against surges?

Bee: Yes.

Liu: Have those been installed or at least looked upon?

Bee: Right now, and maybe Herb can respond to this, but they are in the middle of a engineering review of the entire Tram system that was started... You want to respond to this?

Berman: No.

Bee: The review was started approximately six months or a year ago. They hired a consulting engineer to do a complete review of the system and make recommendations on what kind of upgrades should the Tram have for the next 30 years.

Liu: And a surge protector was one of those upgrades.

Bee: I wouldn't characterize it as a surge protector because...

Liu: Well, it protects against surges.

Bee: It is maybe more resistant to problems.

Liu: Problems meaning power surges.

Bee: Such as.

Liu: Such as power surges? And what's the magnitude of the cost of this kind of equipment? Is it a million dollars? It is ten million dollars?

Catherine Johnson (Vice President for Operations, RIOC): Let me just respond to those questions. The Board approved...

Liu: I'm sorry. We know your name, but please identify yourself...

Johnson: I'm Catherine Johnson, and I'm the vice president for operations for the Roosevelt

Island Operating Corporation. The directors of RIOC approved a \$3.9 million capital plan for the upgrade of the Tramway system. Rather than simply replacing all of its existing components, we elected to engage an engineer who would do a survey for us, of state-of-the-art equipment that's currently available, provide us with a series of options for upgrading the Tram which would assure its continued reliability and safety. We have actually a meeting scheduled for the 17th of May to discuss with him some of his initial findings and recommendations for the corporation. So there's no decision been made yet about how the upgrade will take place; we're looking at all the options to ensure that we have the best information and the best practices out there as we embark on upgrading the Tram.

Liu: It's just that, in recent years, there have been other instances where the fuses were blown, or I guess there was a fault that occurred that disrupted the service. So again, it would be helpful, probably from the engineers, if we could get an idea of what this kind of equipment costs – is it a million dollars, is it ten million dollars? Would it even be covered by a \$3.9 million allocation.

Bee: To just replace the components that we think were involved in last week's incident, which is the SCR drive, its motor, is probably on the order of a half million to three-quarters of a million. So it's certainly viable within the budgeted amount.

Liu: OK. I mean, in December of 2003, the fuses were blown, and I don't know if maybe that was seen as a fluke. I think it was a fluke, because in your earlier statements, these faults occur on almost a regular basis. You implied it was just something that a Tram system has to deal with. On the other hand, we're finding out that the equipment exists to protect against these kind of faults. We call them "surges." We don't like the word "fault." So the surges, we can protect against, and so I think that would be a recommendation that this committee would make as a priority item to include in your capital...

Johnson: And we would fully expect that would be a part of it.

Liu: Thank you. Just two more questions, and I'm going to turn it over to Councilmember Lappin. In the last incident, which was just a few months ago, in September of 2005, can you describe what happened there? We don't need as much detail as the April 18th incident.

Bee: Yes. In September of '05, there was, again, it was an SCR fault in the afternoon, and we had...

Liu: You mean a power surge?

Bee: Well, no, we don't know the cause of the fault. The SCR...

Liu: It's just something that went wrong.

Bee: The electronic circuit shuts itself down. And we don't necessarily know the cause of why it shut itself down, but it shut itself down, and the on-duty shift supervisor was not able to figure out how to solve the problem. He had been trained on it, but he, I guess, froze at the controls and was not able to reset it, so the manager came in and was able to simply reset the SCR by pushing a button and bring the Tram cars in. We replaced that supervisor; we felt he didn't have the qualities we needed to be a shift supervisor.

Liu: So it was the supervisor's responsibility.

Bee: Yes. It's an easy thing to reset and, despite the training he had received, he wasn't able to reset it.

Liu: You stated that you didn't know why the system shut itself down.

Bee: No, we don't know why the system faulted, but like I said before, it's a very complicated electronic device that has lots of protections built in. When it senses any anomaly, it shuts itself off. Most of the time, when it shuts itself off, it can be reset by pushing a button.

Liu: OK. So, when the system shuts itself off, there's no need to find out why it shut itself off, you just push the reset button and let the Tram continue?

Bee: If it becomes frequent, we should certainly check it. What happened in this incident that is we thought we had a problem with one component that provides a speed input reference to the drive. That component was changed. At the time we thought that was what caused the problem.

Liu: All right, but you still, to this day, which is about eight months from that disruption in September of 2005, you still don't know what happened that caused the system to shut itself down.

Bee: We're still making a complete investigation of the entire SCR drive system.

Liu: And yet, it was OK to, in these eight months, in the intervening eight months, to continue to run the Tram? Now, based on the incident last week, it is not OK to run the Tram. What's different about what happened last week and what happened in September, 2005?

Bee: Well, I...

Liu: In both instances, the Tram ground to a halt. The SCR system, the drive system, shut itself down. So...

Bee: Well, what's different is we were able to reset the September fault by pushing a button. We changed the fuses and, a day after the incident, a technician from Europe arrived, a specialist on the system, that next day we were able to duplicate the same problem; a couple of days later, we were again able to duplicate the same fault, so we now have a pattern there.

Liu: You were able to duplicate the fault in September?

Bee: No, no, we were able to duplicate the one that occurred last week. We've had it happen twice more since we've been testing it this last week, and we're still trying to find what the cause is.

Liu: It just seems that... I don't know if that difference is enough for us to understand why, after the September shutdown, it continued and why, after last week's shutdown, it has been discontinued, at least temporarily we hope. So, in both cases, it was the SCR primary drive system that failed, and the additional... the only thing that was different last week was that the backup system was not able to engage, as well, even if you weren't... Because you weren't able to reset the primary drive system. But the main problem, it seems, is not with the backup system – of course, we have to find out why the backup system failed – but the main problem is why the primary system failed. In fact, according to this chart, the failure of the primary drive on April 18, 2006... September, 2005, a fault in the SCR drive; December, 2004, a fault in the SCR drive; September 20, 2002, a fault in the SCR drive; December 30, 1999, a fault in the SCR drive. I think something's wrong with the SCR drive. [LAUGHTER, APPLAUSE] So we need to find out as much as we can about the emergency brakes, about the backup system, but let's not forget where the real money should be – in the SCR system, in the primary drive. One last question, and that is this thing about the faults. I guess a fault is not really saying it's a power surge, but

even though the testimony says that the SCR system suffered a “fault” that knocked out 3 800-amp fuses, is that a power surge?

Bee: A power surge is one possibility. We also have other devices connected to the line – a filtering system, and if the filtering system isn’t performing properly, it can cause induced voltages that could also cause the problem with the SCR, and we’re investigating the filter system now.

Liu: Does the filter system have anything to do with fuses blowing out?

Bee: They could.

Liu: Well, this is – now we’re getting into a little bit of wording here. A fuse – when a fuse breaks out – what’s the purpose of a fuse?

Bee: It’s to protect the components.

Liu: Against? The weather?

Bee: Against damage.

Liu: Against damage caused by the weather?

Bee: Damage caused by high currents.

Liu: OK, that’s a good one. High currents. You mean, higher than normally anticipated.

Bee: That’s correct. The components that are connected to the fuse are designed for a certain amount of current.

Liu: Now I don’t have a copy of Webster’s handy, but I think most people would consider that a power surge. If current higher than anticipated or even more precise a current higher than the circuits are prepared to handle is a power surge. It’s a power surge.

Bee: That’s correct...

Liu: On the other hand, we have a statement from Con Edison – and we’ll hear from them after we finish – that there was no power surge. So here again, I think the fingers are pointing right back to that primary drive system. Maybe it wasn’t a power surge, and maybe there’s something fundamentally wrong with that SCR system. So, Madam Vice President, in addition to the surge protectors, maybe it’s time to re-look at that... re-look at the primary drive system, as well.

Johnson: Certainly we’d be looking at the primary power drive system. But I also want to state that when you look at there in isolation of the Tram system every day, we transport a million people a year on the Tram, and a huge number – I can’t think of the number off the top of my head – daily and annually that that Tram runs. What we’re looking at here is no different than when my furnace goes and the electrical controls in my furnace trip, and I go down and I hit the reset button. It’s an electrical system. So a fault in an SCR drive doesn’t mean that there’s a problem with the SCR drive. It’s doing what it should do in order to protect the safety of the passengers in those Tram cars. The Tram, by and large, has an outstanding safety record over its 30 years. We’ve had one instance where we had to engage the rescue cabins, and I think that we’d all be hard-pressed to find one other major form of transportation in this country that can claim the same high safety record as the Tramway on Roosevelt Island.

Liu: I appreciate that. You mention that it does transport a million people a year, and that's very significant, and that's why we have to look at it what's happening here. I don't think that most people taking the Tram, particularly those 68 people who were stuck above the Manhattan skyline that day, would appreciate a reference or comparison to the furnace breaking down. I understand what you're saying – that it's just resetting – but the consequences are far different than the furnace breaking down in someone's house.

Berman: You're absolutely right, that's precisely the reason why there has to be an extensive inquiry as to what went wrong and what we have to do to repair it, and that's precisely what's going on now.

Liu: Thank you very much. We'll turn the floor over to Councilmember Lappin.

Jessica Lappin: Thank you, Mr. Chairman. I have three areas that I want to ask questions about – operations, funding, and emergency preparedness. I'm going to start with operations since that's where you left off, and agree with me, Ms. Johnson, that the Tram has proven to be a relatively safe form of transportation, and our goal today is to insure that continues in the future.

The chairman asked about the incident in September, and I don't want to go into the details of what happened on that day, I just want to know – I think you said that it's seven months later. I don't want to be sitting here seven months from today facing you guys and asking what happened on April 18th, and why the Tram isn't up and running again. So while we need to have a complete and thorough investigation of the Tram's operating safety, seven months is a long period of time. I just want to say that for the record.

You discussed faults that happened over the last week. Did you? Were those created by you or did they happen spontaneously while you were testing.

Bee: They happened during testing that we have been performing, and we're getting the identical fault indications that we had last week.

Lappin: So you weren't artificially creating that situation. It arose two more times.

Bee: That's correct.

Lappin: And were there surges. I mean, how were those being duplicated?

Bee: Well, we were running at the same basic point on the line when the motor switches from being a motor to being a generator is where we had these faults, so we were at one point taking current from the line and another point putting current into the line, and the electronics are very complicated to do all this, and I guess I do want to respond earlier to what you said about the power surge. A power surge is one thing that can affect an SCR, but the SCR by itself can cause its own problem if something misfires it can blow fuses even if there's no disturbance on the power grid. So the SCR itself can cause a fault that blow fuses regardless of what's happening on the Con Edison supply.

Lappin: It sounds like something apart from Con Ed. You mentioned this before. The power that you get from the grid, there's power that you generate internally. And you just said the Tram goes from being a motor to being a generator, so are you saying that the Tram generates its own power?

Bee: Well, that's how it decelerates. When it wants to slow down and the motor that's driving it turns into a generator and it's making electricity now – it's putting electricity back into the power grid, and that's how you slow the tram down. There's three levels of braking – mechanical braking systems beyond that, but the primary way is the electric motor to slow the Tram down, much like if you have a hybrid car, you're using an electric motor to slow the car down. It's the same principle.

Lappin: Is it possible that the Tram itself is generating the power that's causing these surges?

Bee: Yes.

Lappin: And that would be something that we would fix how?

Bee: Well, once we know the exact cause, we will replace the faulty components. And we're still investigating that.

Lappin: So, Doppelmayr has the contract to maintain and repair the Tram? Or who actually operates the Tram? Are they RIOC employees or are they...

Johnson: The corporation has a contract with Doppelmayr. Doppelmayr, under that contract, operates the Tramway system. They employ the staff and maintain the system.

Lappin: And I do want to say on the record that both the emergency, City emergency workers and the Tram personnel, I think this is important, did do a fantastic job last Tuesday night. The people who were on the Tram, the operators, who kept everybody calm and together, and the people who were on the ground. I want to congratulate you and your team for doing a great job. I was there and I saw that there was... I want to thank you for that.

It's my understanding that the Tram cars themselves and the cable were replaced just recently. Is that accurate or not?

Johnson: The cars have not been replaced. They are original to the system. The haul ropes have been changed over the life of the system.

Lappin: So, if the system's been operating for the last 32 years, what equipment is new? Is everything other than the cable itself original to the system?

Johnson: There are component parts to... Well, we upgraded the electrical system in 1994 to the SCR drive. That was a major upgrade that occurred there. There's continual upgrade that's done to the components of the system, but the hanger arms, the cabins themselves, etc., are all the original equipment.

Lappin: And as Chairman Liu pointed out in the primary SCR drive is the focus here, since it was upgrade in '94, has it operated better? Worse? Is it an improved system. Is the upgrade... if you were looking at the record of the Tram.

Johnson: It was considered a state-of-the-art system when it was installed in 1994. There are newer technologies today. We are looking at that as part of our overhaul of the entire Tram system.

Lappin: I'd like to move to the funding piece, the \$3.9 million. One of the frustrations – and I notice Assemblyman Grannis is here – has iterated over the years is a lack of capital planning, which predates you, for the Island in general. So I guess my question is, has there been

consistently a capital plan for the Tram, and will there be a capital plan for the Tram...

Johnson: There has consistently been investment in improving and upgrading component parts to the Tramway over the course of its lifetime. We are embarking now on the first major capital improvement to the Tramway in the replacement of all of its key component parts.

Lappin: When we, in this committee, will hear testimony from the MTA and other agencies about long-term capital plans. Does RIOC have a long-term capital plan, or have you ever in relation to the Tram?

Johnson: The corporation developed a five-year capital management several years ago, and we have been operating from that plan and updating it annual for the Board of Directors as part of their annual review process.

Lappin: And the \$3.9 million – you are waiting to have this study to be completed before you allocate that funding?

Johnson: We were looking for the recommendations from the consultant as how best to proceed with the best system for the Tramway on Roosevelt Island.

Lappin: And how long ago did you engage with this consultant?

Johnson: December. I believe about December.

Lappin: OK. And so, even prior to the incident last week, or, now, almost five months later, is that plan finished?

Johnson: We have a meeting set for later in May. He has his initial set of recommendations to us. We had already scheduled a meeting to meet with him in May, to discuss his initial recommendations.

Lappin: I guess I would just... I hope that now there is an added sense of urgency, in terms of the seven months that it took to look at what happened in September, the four months it's taking to get a meeting with the engineer who's conducting the study, because we do want to get the Tram up and running quickly.

I wanted to ask a couple of questions about emergency preparedness and what happened last week. One, it was the NYPD who took charge on the scene, and did a fantastic job. It is my understanding, however, that it is the FDNY that has been trained in these kinds of contingency operations.

Berman: So is the police. Last year, I don't recall exactly when the FDNY was trained, but the year before, I believe, it was the PD that was trained, so they were both trained on the rescue systems.

Lappin: How often do you do these test runs?

Johnson: The Tram emergency system is tested every six months. Several years ago, Armando Cordova, who is the supervisor of Tram operations, began inviting both NYPD and the Fire Department to participate in those training sessions. They have both participated in those training sessions.

Lappin: So both agencies know what to do. Was there a determination made on the scene as to

who would be the lead whether it would be the PD or the FDNY?

Berman: That's not our call. We just followed instructions and assisted in any way that we can. Now, you see, the rescue the process was our plan. But they were the ones that were making the decisions.

Lappin: There was some complaints immediately after about lack of communication between the people on the ground and the people in the cars, that it was done primarily through cell phones. Can you comment on that?

Berman: There apparently was some kind of problem. We're looking into that, and that's one of the issues that have to be resolved, and clearly, that's an issue that will be resolved.

Lappin: Is that... making sure there's adequate communication between the operator in the Tram and the people on the ground. Are you looking at – were there first-aid kits, or water, or...

Berman: We're going to look at that. We're looking at every possibility. The experience of April 18 will serve as a basis for implementing improvements as to how to operate and how to prepare for emergencies such as this. So I would assume that within a very reasonable amount of time, we will have implemented a set of protocols that will be an improvement.

Lappin: OK. And I would repeat again, I would hope that there is a sense of urgency in this.

Berman: Believe me, there is a sense of urgency.

Liu: Thank you very much. We now have brief questions by Councilmembers, beginning with Daniel Garodnick.

Garodnick: Thank you, Mr. Chairman. Thank you, and thank you, also, to Councilmember Lappin for your leadership on this issue. I just had a few questions for you. I'm still struggling with some of the technical issues that Chairman Liu was asking about at the outset. It seems to me, now I understand that there's a point at which, when you're using the motor and when you're decelerating, that in fact it becomes a generator and that, in fact, the whole system, there's not enough protection to keep from extra surges or whatever you want to call them. It seems to me that you mentioned one possibility, that was the filtering system, was that... are we just... is that the word for what I am describing the possibility of keeping additional induced voltages, is that the filtering system?

Bee: That's correct.

Garodnick: What are the other possibilities that could have been the source of causing those three system to go down at the outset. I want to understand the range of possibilities. One of them could have been the filtering system. One of them could have been the source of power that outside of the Tram system, is that correct?

Bee: That's correct.

Garodnick: Con Edison is going to come and tell us that that is not the case. I want to know if you accept that that is, that is that this was not a problem with Con Edison.

Bee: We have no reason to believe it was them. We're still trying to find out what the actual cause was. It could be the power grid, it could be the filters, it could be within the SCR itself. We're checking all three.

Garodnick: But you have no specific reason to think that it was coming from the outside.

Bee: I have no data that would support that conclusion.

Garodnick: What are the other possibilities?

Bee: Well, the filter...

Garodnick: The filter...

Bee: The filter within the SCR unit itself. It could have a fault in there that could cause the fuses to blow.

Garodnick: The filtering system is not within the SCR system?

Bee: It's a separate cabinet that conditions the power off to the side. The SCR is connected directly to the power grid and, off to the side is this filter that basically absorbs harmonic distortions.

Garodnick: Tell you about harmonic distortions.

Bee: I'm not sure I can explain...

Berman: You've obviously never heard me sing. [LAUGHTER]

Bee: The way an SCR works, it does certain things to the incoming voltage supply and it induces a harmonic. A harmonic is certain frequency where the electricity starts to oscillate and the filter's sitting there to absorb the harmonic, not so much to protect the Tram system or the drive, but to protect every user that uses electrical power from that grid. If you don't have harmonic filters, you could affect other sensitive component connected to the grid.

Garodnick: So the filtering system is not only protecting internally in the Tram, but is also protecting the connection back into the grid.

Bee: That's right. There are certain standards on electrical power generation. In order to meet those standards with the SCR drive, we have to have a filter.

Garodnick: Let's talk for a second – did you want to add something...?

Berman: Yes, I just wanted to say, Councilman, that this is all speculation. I mean, this is precisely what is being examined now and we're trying to arrive at conclusions so this is all speculative, we don't know yet, and we can't say this with any degree of certainty that this was the cause or wasn't.

Garodnick: OK, so let's go to the finance question, which is... I share the concern here that there was an investigation undertaken back related to the September, 2005, that we don't quite know the answer why there was a fault causing the SCR system to shut down and I want to make sure that the investigation that is being undertaken today is one that delivers the answers because we all share the same goal here which is to make sure that the system is up and running and safe and available to the residents of Roosevelt Island, and so what I'd like to know from you is what sort of investigation did you undertake back in September of 2005. What did that look like and how is that different from what we're looking at today?

Bee: Well, the incident we had in September at the time appeared to be a minor fault. It was reset by pushing a button. There's other cases where the SCR faulted and it didn't result in an interruption in service. In other words, we only show incidents on this log here where passengers were stranded for 15 minutes or more. So if we went back for ten years there's probably other cases where an SCR faulted, a button was pushed, it was reset, kind of like rebooting your computer. It happens, you do it, and you keep running, and it's not unusual that you occasionally have a fault, and you reset it.

Garodnick: So it sounds to me like there was not an investigation back then. It was a... There was no investigation.

Bee: No, I know that... Somewhere around that time period, and I can't chronologically say whether it was before or after that fault, we did change a component called a taco-generator because we thought it was causing noise coming into the SCR which would have caused occasional faults.

Garodnick: So, just so I understand you correctly, you have done periodic changes to the system – upgrading of the system, but when you have seen other situations where there were faults in the SCR system, which created a problem that caused an interruption in service, you didn't conduct an investigation the way we're talking about doing right now, is that right?

Bee: We're doing a much more thorough investigation right now.

Garodnick: Well, what does the investigation look like for the purpose of our discussion today for the events of this month. What exactly is being done to investigate the technical elements – whether it's the power grid or filtering or... what does this investigation look like?

Bee: Well, the first thing is we got the system back working properly. We've run a lot of testing over the last week now. Like I said earlier, we've seen the same fault twice now since last week. We're still not certain as to the cause of that fault. We are now investigating components within the filtering system; we've made some adjustments to the SCR system itself, so the investigation continues and we are doing it as quickly as we can, but we are trying not to miss any steps.

Garodnick: Is it possible that the fault that caused this was the same fault that was able to have a button to reboot the computer as you described it back in September.

Bee: That's a possibility, yes. We also have a spare SCR system on site. It's been on site for, I think, several years. We're reluctant to put it in to replace the existing one until we fully understand what's not working with the existing one because if it is the filters we could blow the fuses on the new SCR, so, and so we want to make sure we understand everything that comes before we put a spare unit in.

Garodnick: I think that makes a lot of sense and particularly since you've now allocated \$3.9 million for the purpose of upgrading the system, have to make sure that the right pieces are in place. I understand that you are right now working with an engineer to figure out what might work. So, do you have something... I assume you have something specific in mind when you allocated \$3.9 million, as opposed to any other number, for the purpose of upgrading the system. What did you have in mind when you allocated the money?

Johnson: The 3.9 was our estimate for the replacement of all the major components of the system: the track ropes, the haul ropes, the counterhaul ropes, the hanger arms, the cabins themselves, and the SCR drive.

Garodnick: I see. So \$3.9 million would accomplish a complete overhaul, brand new, state-of-the-art everything for the Tram?

Johnson: That's our estimate.

Garodnick: So anything... All right. Good. The last question that I had was... Mr. Berman, you mentioned that the emergency rescue process was your plan that was Roosevelt Island's plan. The part which concerned me and many of us was the fact that it seemed that things were not operating at the same moment, that during that first initial period when you were trying to get the cranes and the cages were not actually present on the site.

Berman: That's just not factually accurate. The cages are present. As a matter of fact, they are located directly under the area outside where the Tram comes into the station. What is not kept out there is the – what is it, the hanger?

Bee: Well, the hanger is. I think everything's kept out there.

Berman: Just about everything is kept out there. The assembly... we even have a winch that's used and it's built into the system but it is a long process and it's a difficult process and it's a tedious process but it's a safe process. I mean, the proof of the pudding is, and it was long and believe me, I don't know what else. I mean, my prayers were there, everybody was there, would that it could have been done faster, but the reality was that there is a system that was implemented safely. The people were removed safely, nobody was hurt, that was the bottom line. And the mayor said the same thing, that time wasn't the issue. Safety was the issue. I don't know as to whether or not anything could have been done to hang these cages quicker, but they were done within the time that, you know, it takes to do it. We also had to do a test run, so I think Armando and a couple of the police officers got onto the cage; it was run all the way up to about the middle of the rope, and brought back before it was then sent entirely over to where the car was stalled, and the rescue begun. But you're right, Councilman, it took a long time. Would that it could have been done faster, but the key and most important thing was that it was safe. Everybody got off safely.

Garodnick: Let me say thank you for that, and thank you, also, for being here. We appreciate that. We appreciate your commitment to making sure the Tram continues to be a functional part of the transportation infrastructure for all of Manhattan and Roosevelt Island and, you're absolutely right that safety was the most important point and we are all very grateful to see that the people were taken off those Trams safely...

Berman: I also want to emphasize that, having been there, and Councilmember Lappin was there, that the police, the fire, our staff, they were just miraculously heroic, almost as heroic as the people who were stuck on the Tram, who were incredibly heroic also.

Liu: Thank you, and thank you Councilmember Garodnick. Questions now from Councilmember Mealy, and then McMahan.

Councilmember Mealy [Off-mike, portions unintelligible]: Well, I just want to say thank you for being here. I'd like to piggyback on Councilman Garodnick. I just feel here... You said from 8:00 o'clock... 8:30 p.m... In this report it's saying that had to look for the cages and then to be assembled...

Berman: No. The cages were there. The cages are stored outside right under... in the area that cabs, the cars come in and dock at the station, so they were on site.

Mealy: OK, and you say that every six months there is a training of the contingency plan. And shouldn't it have been right after, least a hour, they should have been already with them right on the site, it could have saved hours for this rescue.

Berman: All efforts were made to try and get the equipment operational so that the people can be moved into the station by either the original system or the backup system. Once a decision was made to go into rescue operation, then all of staff who had been working on the equipment to try to fix it, went in to assist the rescue operation because that was the most important thing that had to be done.

Mealy: OK, and that's exactly what I'm saying. You say only after, after the engineers found out they could not restore power, that's when they went and assem... well, got the cages together, and then had to wait a couple of hours, and then to do a test drive.

Berman: That is correct.

Mealy: But in between shouldn't there have been other, maybe another department that had been trained every six months, would have automatically...

Berman: They were the ones... those were the engineers who were working on the equipment. They were also the ones...

Mealy: Separate.

Berman: No, it's not separate. The same ones who do, they're the engineers who put the rescue cages together, who operate the equipment and were trying to repair it.

Mealy: ...have another...

Bee: Let me speak in here. One of the problems is that as soon as you put the rescue cage onto the track, then you cannot move the cars any more. So you don't want to stick the rescue cage on the track until you've given up the option of bringing the cars in. So even if you had plenty of people it's impossible to do the two in parallel. You have to go down one path and when you decide you can't bring the cars back into the station, then you stop, you leave all the brakes set, you have a safe condition, now you put the rescue tram into operation. And it's a long process. In testing, it's typically two, two and half hours, and I believe Armando had the rescue cages on in about an hour and forty minutes. So they worked as quickly as they could.

Mealy: I come in every morning, and that's my job. Thank you.

Liu: Thank you, Councilmember Mealy. Questions from Councilman McMahon. I just want to point out to the committee members that we have Councilmembers McMahon and Lanza here with us from Staten Island, Jimmy Oddo was here, coming in and out, the entire Staten Island delegation was here, the Staten Island Assemblymember [Vincent] Ignizio was here, as well. I'm just wondering if you guys are thinking about a redundant transportation system for the Ferry.

Berman: We can negotiate the extension of the Tram to Staten Island.

Liu: Councilmember McMahon.

Thank you, Mr. Chairman, and from sort of that light reference to Staten Island, I intend to speak to a very serious reference to Staten Island, and that is, we all know that in October, 2003, as Councilmember Lappin mentioned, we had a horrific accident that cost eleven lives and maimed

scores and others, affected families forever, and perhaps that's why we're here because we are so concerned about the safety of our transportation systems. And I have to tell you, ma'am, that as I sat and heard you talk about the impeccable safety record of the system, it was extremely reminiscent of the testimony that we heard post-ferry accident, but for this ferry accident, there would have been an impeccable safety record, so Councilmember and I were sitting here wondering, do we have a circumstance where there's maybe a land mind out there that just hasn't been stepped on, but then can lead to the same type of terrible accident and injury that occurred with the ferry system. So I want to be very clear with you – that same impeccable record and that no accident has happened doesn't really carry much weight or water with us because we've heard that before. At the same time, I want you to know that, as Staten Islanders, we are very very aware of the fact that you do not give up a significant transportation system – you don't do that lightly. I'm sure you know that there are forces outside this room, assembling or talking about doing away with this Tram system. So you have to make us 100% certain that this system is going to be safe, because we want to [APPLAUSE] make sure that this system is going to run, but it's going to run safely and some of the things... and I know we get carried away in technical languages in part of this discussion. At the same time there has to be a conviction and commitment from your side that, if it means that there has to be a new technology to run the primary system, because clearly there's a problem with the SCR system, whether it's the unit that's in there or one or one you replace, we want to know that there is no expense that is going to be saved to put that system in place. At the same time, I will lend my voice in common with my colleagues from Manhattan and from Queens, if this system is a vital mass transportation system, it should be treated as such. If necessary, there should be help and subsidy from the MTA or the appropriate City authority to make sure that this system continues to operate and move those tens of thousands of people to and from work and their homes and recreation, but it has to do it safely, so you have to convince us, even the delegation from Staten Island, in a way this is a local issue, but it's not, if there was a tragedy it would be a City-wide issue, you have to convince us that if we come to your aid and support, which we intend to do, that we're not going to get to a system where, oh, well, we had a good record, but something happened. So you have to make sure this system is running to the best of its ability and to the best of its safety, because there are a lot of concerns that we heard today. You know, you had a signal last September that there was a problem and it still wasn't fixed, and people were running in the [UNINT], and so, I'm concerned about that so convince us we should come to your aid in the battle to continue to serve us.

Berman: Councilman, thank you for that eloquent statement and I certainly appreciate what you're saying and your offer of help. As I indicated initially, we will share with you once we have a full understanding of what took place, what our plans are to repair, replace, and to render the Tram system safe before it's put into operation, and we welcome your participation, and beyond that I don't know, I can't be more forthcoming than that, but I assure you we will share the results with you, and we will share the plans to rehabilitate whatever has to be rehabilitated.

McMahon: And just so I'm clear, you understand why the backup system didn't work. But you still are not certain why the main operating system didn't come back on line. Is that correct?

Berman: It's all... I mean, even the backup system, it's all speculative until the investigations are over, and frankly, everything that's being said at this juncture is a guess and we'd all be very much more comfortable waiting for the results of the investigation when they're completed. There is more testing that has to be done, and we will share that with you.

McMahon: Will you come back and report back to us on your findings and is the system grounded now until...

Berman: Oh, absolutely. I can assure that I personally would not authorize the institution of

Tram service until such time that everybody is convinced that the system can be operated safely, that whatever is taking place has been repaired. So, that's, I mean, that's...

McMahon: Certainly it's ridiculous to talk about building a new Tramway system to Governor's Island and in the same breath talk about eliminating the system to Roosevelt Island, so I think that you're going to have broad support in the Council as we move forward, once you guarantee to us in no uncertain terms that it's safe for its riders. I just want to ask one or two more questions, Mr. Chairman, about the emergency response that occurred. Is it true, as reported, that police officers were not immediately told that the second cage could not be used on the Manhattan-bound gondola and then this, in effect, resulted in delays because the crane had to be called in at a later time.

Berman: Not that I know of. I mean, I have no information to that effect.

McMahon: That's in the published reports and in the data that the council staff has collected from the police department. It seems that the last phase of the rescue on the Manhattan side was only effectuated once they were told that they could not use the cage on that end.

Johnson: My understanding is that there was a misunderstanding about whether both of the emergency tram cages can be used simultaneously, and the way that the emergency tram system operates, only one of those cages can be on the line at...

Berman: That doesn't mean that... The second car that was on line could have been evacuated by the cage. It would have taken time to transfer it so that it was on the rope that would get to that Tram, so...

McMahon: So the key word operative here is "simultaneous."

Berman: Exactly.

McMahon: It's my understanding that the cage itself was not assembled and gotten ready, and it was about a two-hour process to get it ready, until it was determined that the car itself could not be moved by the operation of the motor. It seems to me in that circumstance in the future, if you do have a problem while you're trying to rescue the car by operation of the system itself somebody should be working already to simultaneously put the cage together and then put it into operation immediately and thereby saving a few hours time that people are up in the cage. Did I make that clear?

Berman: Yes. But the cage was together. The cage didn't have to be assembled.

McMahon: It didn't have to be assembled but an arm had to be attached. It still had to be prepared to be put into operation and that was described as a two-hour process, and it seems to me that that process should have been initiated while you were still trying to rescue the car mechanically.

Berman: It... Go ahead, Cathy.

Johnson: One of the issues with that is... Part of that, when people refer to the assembly. The cages are assembled and available immediately on the platform on the Tramway. But they need to be put onto the emergency line. That's the assembly that's required. Once you start putting the assembly that's required, as Mark said earlier, you can't then bring the cars back in, so you have to proceed along one line until you decide to go to an emergency operation, and then...

McMahon: So there was no preparation that could have gone on simultaneously.

Johnson: Until that decision had been made.

McMahon: OK, so that may have been the case with the cage, but certainly in any event, certainly, there will be no next time, but this operation it seems was done in steps instead of a simultaneous operation to be ready for any contingency. So I would urge you to look at that as you retool your emergency systems, and again, convince us to carry the banner to continue this service for all New Yorkers, especially Roosevelt Islanders.

Liu: Thank you, Councilmember McMahon. Now we will hear from Councilman Koppell, then we will hear from Con Edison.

Councilmember G. Oliver Koppell: Thank you. Mr. Chairman, I don't want to belabor the point. However, I must say, with all respect, and you're good people, but I am not going to congratulate you because I think there were serious problems here and they weren't necessarily properly addressed, and let me just ask a couple of questions. You answered these in part to Councilmember Lappin. Number one, was there or was there not the ability to communicate like you have in the subway to the passengers in those cars. Because I watched this for hours and hours on Channel 7, which by the way did an excellent job, better than the other channels. [LAUGHTER] ...the other channels. Channel 7 turned off the commercials and they should get credit for it. I don't know why people are laughing. It happened to be an important issue in this City and it was covered by that channel better than other channels, the other major channels, I don't know about cable. But in any event, I watched it for hours, continuously. Was there an ability to communicate to those passengers on an intercom system?

Bee: The Tramway has two means of communication. One is a built-in telephone system that goes from the operator's console to each car. While that system's working, it doesn't have good fidelity. It has static. It's only for the cabin attendants to talk to the control station. It's a hand-held telephone, it's not on a speaker. The attendant within the cabin can communicate with the passengers. The attendant has a hand-held radio that he can [use to] communicate with the station. Those radios have an operating life of approximately eight hours from the start of a shift, they're good for about eight hours. On the car that was over the river, when they brought supplies to that car, they brought up a new radio. Before the radio he had had gone dead. I'm not sure about the Manhattan cabin, but we did have communications the entire time to the cabin attendant. The cabin attendants both had personal cell phones and it was decided to use personal cell phones for communications because that conversation was private whereas with the hand-held radios everybody hears and we... and there was a desire to control what communications were heard and which ones weren't.

Berman: Councilman Koppell, let me just say that one of the areas that were obviously going to be looking at very very carefully is the means of communication between the tram cars and station, so that is something that we're concerned about and we're going to be looking at that, and that matter will be resolved.

Koppell: I'd like to say, yes, that people were not injured, but the psychological injury, I can't gauge it. Being able to hear from the police or from other rescuers in a clear way over an intercom, I think would have been helpful in calming people, so people's psychological state was affected even though fortunately there was no physical injury. The other question I have is that when I observed this on the television, and perhaps I observed it improperly because it was only through the television, it seemed to me that the cage was hanging outside of the Tram car, and that the passengers being transferred from the Tram car to the cage were to some degree over an open space. Is that correct or incorrect?

Bee: That's correct. I don't know if I can speak too much to the details. I wasn't on the scene at the time. I believe they did have harnesses on the passengers at the time when they were transferring them, so I don't think that at any time they were exposed to falling, but I wasn't...

Koppell: Well, it didn't look like harnesses when they were being transferred. It looked like they maybe got strapped in once they got into the cage. In any event, it seemed to me that if there was an open space, it seemed to me that there should have been a net. That can't be a terribly complex thing, or the system should be changed if you're going to still use this system so there isn't an open space. And I might say that while I'm sure skill played an important part role in protecting people there was something else perhaps involved and the man made the point with the ferries – that there was something else involved, and that is L-U-C-K, and that's not your responsibility; maybe some other power's responsibility.

You say in your statement, Chairman Berman, that after the incident the cars were brought in in 90 minutes. Well, why weren't they brought in 90 minutes during the incident.

Berman: Sir....

Koppell: Or maybe Mr. Bee will answer that.

Berman: Well, what happened is that when a decision was made to use the rescue cage, all efforts to repair the equipment stopped because you can't do both, and everybody went to assist the rescue operation. After everybody was safely removed from the trams, they went back to trying to correct the equipment, they were able to then move the cars, from where it was suspended, into the station.

Koppell: It was hours before that happened.

Berman: That is correct.

Koppell: So were the appropriate engineers called, say, a half-hour or 40 minutes after this happened?

Berman: Yes, sir.

Koppell: Were they there within a reasonable amount of time?

Berman: We believe so, yes.

Koppell: So you couldn't fix it in 90 minutes then.

Berman: No.

Koppell: So I guess the other question is, who was doing this investigation that's being done right now?

Berman: Department of Labor and we have our own engineers, and the company that built and maintains the Tram.

Koppell: But your engineers are independent of the company.

Berman: We have an independent engineer. We have the people who maintain and operate the Tram, the Doppelmayr Company, and the Department of Labor.

Koppell: But do you have people independent of the Doppelmayr Company involved in this investigation?

Johnson: We have a company from Europe that originally manufactured the control and electrical systems who are doing the investigation.

Koppell: But... It may be appropriate to you to utilize them, but I'm curious, has the Department of Labor engaged an independent engineer, someone with no relation to the people who built the system or are operating the system?

Johnson: The Department of Labor's investigative team includes a group of engineers, yes.

Koppell: Who are independent engineers?

Johnson: They are Department of Labor employees.

Koppell: Well, I would recommend to the Operating Corporation that you engage an independent engineer, not somebody who is in any way connected to the Doppelmayr Company or to the manufacturer of the system, because they're interested in protecting themselves, I might say. They're not interested in... Well... hopefully, they're interested in fixing the system, but one of the things they're going to be particularly concerned about is protecting themselves and showing themselves to be without fault. You do not want them as the principal investigators here. They can do their own investigation. They should. But I would recommend that the commission spend what, or that the corporation spend whatever is necessary to hire fully qualified independent engineers to evaluate both what happened and the system in general. That would be my recommendation, and if it costs a lot of money, that should be done, notwithstanding.

Berman: Thank you, Councilman.

Liu: Thank you, Councilmember Koppel. [APPLAUSE] I want to... thank Mr. Berman and his team for joining us this morning, and we look forward to the follow-up on this important issue. We look forward to the Tram back up on line, back on line.

Berman: As do we, and thank you for your courtesies.

Liu: Thank you.

[At this point Chairman Liu called upon a representative of Con Edison, who read a statement establishing that Con Ed had checked all its equipment and readouts for April 18 and found that its equipment was not the source of any power surge or other anomaly that might have caused the SCR or other Tram equipment to "fault." He said, in part: "There were no overloads, no surges, voltage was within national and Con Edison standards." In response to a question from Councilmember Lappin, he also provided the following description of the dual-function "motor-generator" function of the Tram engine:]

I would say that the Tram, I guess, just a way of thinking about it, when it's moving up on the line, it's acting as a motor. In other words, the electricity that we supply and that their equipment facilitates, it acts as a motor. It provides mechanical power to lift that Tram on the line. When it's coming down the line... you have gravity on its side, you don't really need to use the motor. When gravity is acting on it, that same equipment then has the ability to act as a generator of

electricity, and that has the ability to actually generate power and transmit power back into the grid.

Councilmember Lappin: [For the future] Do you feel confident that there are systems in place that, if there were a power surge or potentially a blackout, or some irregularity with the power grid, that there are protections in place to keep the Tram running or to get the people – you know, you wouldn't want a power outage and have the Tram stop in the middle, either – so that with an outage or a surge the people would get to the other side safely?

Answer: I can't speak to the effectiveness of their equipment to protect the Tram's operations; you'd have to talk to them about that. A couple things I can talk about is just, particularly with regard to the other – the outage – we have four redundant supplies – Con Edison has four redundant supplies. The Tram only needs one to operate, so we essentially have a third emergency capability, so we've got three backup supplies to this. So in terms of reliability, it has a very robust and reliable service to the Tram. Surges or voltage fluctuations, or whatever term you want to use, can occur on the system, either on Con Edison's system or an adjacent system. We're connected to Public Service Electric and Gas in New Jersey, we're connected to LIPA on Long Island, we're connected to Niagara Mohawk and New York State Electric and Gas to the north – it's a very tightly interconnected system, so any occurrence on any of the those systems could result in power fluctuations. I also can say that customers who need a very fine level of power also protect themselves...

Liu: David Keller and Ms. Laurence Marie Brodsky.

David Keller: Chairman Liu and committee members, thank you for your invitation to speak here today. My name is David Keller, and I was on the Tram, stuck, over the East River. The Roosevelt Island Tramway is not just a form of transportation or a tourist attraction. It is part of Roosevelt Island's identity and our history. My first day on Roosevelt Island, I rode the Tramway, and for those four years, it began my day and ended my day. Growing up on Roosevelt Island, when you want to see a movie with your friends, or head into Manhattan, everyone agreed on a time to meet at the Tram. It was our family car.

The Tram's importance should not be underestimated. While there is a subway on Roosevelt Island, it is not appropriate for all residents. Children and adolescents who may have trouble navigating the subway without parents, can use the Tramway safely and with ease. Many people on Roosevelt Island are elderly or disabled. They reside in special housing set aside for them, or in long-term-care facilities. For them, being able to take the Tramway to Manhattan or with their friends, allows them to lead an active life. Without the Tram, many would be trapped on Roosevelt Island. Furthermore, new housing construction on Roosevelt Island is increasing the population from about 8 or 9,000 to maybe 16,000, within a few years. The F train is already inadequate to deal with the rush-hour population, which, if you've ever waited for the F train on Roosevelt Island, you have to wait several trains before you can actually get on. The burden of additional riders without the Tram to take them to the hospitals and other locations on the East Side will make the F train intolerable.

Being stuck in the Tram for almost eleven hours was inconvenient, but I never trusted the need for the Tram. I'd like to tell the Governor, Mayor Bloomberg, and the City Council, I want to ride the Tram again. Governor Pataki should see that the Tram is restored and that the Tramway receives the appropriate funding to run safely and reliably.

The breakdown of the Tram led me to question the management and leadership of RIOCC. Many

months ago, a similar problem existed, and this was not thoroughly and properly examined and fixed. My confidence in the leadership of RIOC is shaken. An in-depth examination of RIOC is long overdue. Fix RIOC, fix the Tramway. We need both running at maximum efficiency.

I also want to thank the New York City police and fire departments for their character and professionalism in coming to our aid that day. Thank you.

[APPLAUSE]

Liu: Thank you very much, Mr. Keller. Miss Brodsky, please proceed.

Laurence Marie Brodsky: I was with David on the same Tram, and we came back on the ground together about 3:00 a.m. I cannot add a word. Everything he said for the Tram. I have had two sons who have used the Tram extensively to go to school on the Upper East Side. The Tram is vital for so many who work on the Upper East Side, and shop, and older people, and younger people, very young kids, people who go to the movie theater, who shop in Mr. Bloomberg's building or around it, by the way. In any case, I won't, I just do not want to speak too much about this because other people have spoken, even from Staten Island, so well about the need for the Tram, and also for the very, very thorough questioning of who is going to oversee the inquiry. That is crucial. RIOC in the last few years has neglected not only the Tram, but many other infrastructures on Roosevelt Island, but the Tram is unfortunately a marvelous way of transporting people, but also, because it is on cables, can be very dangerous.

Therefore, I just want to address my dismay when I heard the engineer from the Swiss company that built this Tram. I'm sure, in Switzerland, he would never speak the way he spoke – answer the question the way he answered them [or] the president of RIOC and the other person on his right, because they know very well they did not spend the money they should have spent to really fix up not only the software system, it is a very old software system, from what we heard, as we were on the Tram. We heard comments, and I won't go into detail of who mentioned that; it's a very old system that doesn't communicate well with the diesel system. We know very well that the diesel system are extremely reliable on the ships. Any engineer here and there are a number of them here, know very well that they never fail. So what could have failed the Tram to bring back the cabin we were in. Not the diesel – supposedly they did – but the software that was not updated or even changed when it should have been, by RIOC.

The second thing, I was also dismayed at the attitude toward the rescue cage. The rescue cages are old, very heavy. The question was asked why the second cage was not installed as the first one was. I assume because it has to do with thrust, any engineer, because it has to do with the weight on cables. The weight, and why the cage did not come – you asked the question of someone – close to the Tram. It's a question of engineering, I assume, because, when you have cables and we know that for bridges, it's physics, any vibration that is very intense can just make the cables snap. And this could have caused the horrendous accident that happened on Staten Island. Therefore, when we were on the Tram, I said I'm going to camp. I don't care when they fix it, I don't like that cage, because, that's why they kept it at bay. And also it was higher up, by the way. It's on the same kind of cable, very, very heavy and cumbersome. They could have devised a better system already, or think of a better system, and I'm sure the Swiss manufacturer should be questioned on that. These very cumbersome cabins cannot be put together at the same time to rescue people.

There is a space. There was no harness, there was no net, of course, no harness, but just for me the sheer fear was that I knew that if they started, I said slow down, I screamed at one point I could not keep my mouth shut because, I knew, if they were really banging against each other, swinging like this, and this could have made this cable snap, and that's why he didn't say

anything about the cabin and the cages, so this also should be questioned – which type of cages will be installed if cages are going to be installed.

And the third, something that bothered me in the last few years. The RIOC wanted to get rid of the Tram, the person who is inside the cabin, so they say that person who is there with the modification, so it's a fallacy, they wanted to get rid of it, with the computers.

The other thing – I am going to stop – the basis of the Tram. You have to understand: I love the Tram, it should be absolutely forever on Roosevelt Island and Manhattan, but you don't want to rush anything. The bases of the towers on the Manhattan side, since September 11, there was a question of protecting the perimeter. Any person can climb on these towers and do things. You never know. This is after September 11. So this, I went, I walk, when I go to Bed Bath and Beyond on First Avenue, you see them very well. Why can't they be protected? So everything that has to do with software, diesel, everything has to be reviewed.

Liu: We get the point. I think we have questions from Councilmember Koppell. We just have a comment from Councilmember Lappin.

Brodsky: Thank you very much.

Lappin: I wanted to just thank you both for being here and for being brave and courageous on that night, and I can't imagine what it was like being up there. I've heard your stories; I've spoken to some of the other folks who were up there and I think one of the reasons the rescue mission worked so well was because the people who were in the Tram were being calm and I give you a tremendous amount of credit for your bravery last week. And just to echo your testimony and I said this earlier at the press conference, one of the things that's frustrating historically is that you feel like Roosevelt Island residents aren't treated the same as other citizens throughout the State and that the Governor doesn't treat them as he does constituents in like Staten Island or other parts of the City, and it takes something like this to really bring attention to the issues that plague the Island, whether it's housing or transportation or emergency preparedness, you guys know, and it's incredibly frustrating, and I hope that one of the positive things that comes out of this experience is that we do gain more attention for the Island and for some of the issues that the Governor has failed to address. And for RIOC to sit here and say that the Tram has been in operation for 30 years and it's only recently that there was a capital plan in place. I've never seen a capital plan. I've never seen, here's what we're going to, year after year and after year to make sure the Tram runs, and make sure the seawall is protected, the bridge is safe – all of these things that impact the infrastructure of the Island. I haven't seen a capital plan in place. And I'm glad that you raised that, and in fact, even to get the Tram into the MetroCard system, the Council had to put the money in place to do it, and we were happy to do it, and that's something that Pete Grannis has expressed frustration with, and Carolyn Mahoney, who had somebody here today. If you need money, then ask for it. Because your state, local, federal government, are willing to help and keep the Island running and maintained and managed the way it should be but, if you don't ask, and even worse, if Pete Grannis offers and you don't accept, then it's... that's how we get to hearings like today. Thank you.

Liu: Thank you, Councilmember Lappin. Questions from Councilmember Koppell.

Koppell: I just want to kind of clarify a couple of things. Did you feel the communication between the ground and the Tram was adequate during the hours you were in the Tram.

Brodsky: Absolutely not. The very nice person who was in charge of the cabin had to use his own phone, but also to use the residents or tourists who had cell phones. Myself, my niece is one, lives on Manhattan at 62nd and First, and the other one in Astoria, and they were telling,

then, another person, we had two flight attendants and one who lives on Roosevelt Island, thank God she communicated with the police. And another one communicated not only with the police, but also with the father from Brooklyn with seven children with him. We were getting informed on what was happening. My niece prepared me mentally by explaining what she could see, that the rescue cabin would come close but not too close, and it would have to be going very slowly in order not to get too close, and then you would have to climb on it. And I really prepared myself mentally, because I was ready to camp, because I felt the system otherwise could be very secure. There is no weight and no swinging.

Koppell: So, uh...

Brodsky: No communication.

Koppell: The other question, just to clarify, because they talked about a harness. When you were transferred from the cabin to the cage, you had no harness on?

Keller: We did not have a harness on. There were two NYPD guys that came up on the first load. They caribined themselves to the Tram.

Koppell: They did what?

Keller: Caribners. Do you know, the mountain climber gear? So they had these big caribiners and they caribined themselves to the side of the Tram, and then they had attached certain equipment to the basket, and then they attached that to the Tram, and then they took some straps and tried to get as close as they could because there was a like a 45-degree angle and then a four-foot gap or so. There really wasn't any harnesses except for the guys who were holding your arm on your left and the guys who were supposed to grab your arm on the right.

Koppell: But you had to go up.

Keller: You had to go up.

Koppell: Was there a stairway that you climbed?

Keller: You stepped on a little stepstool, then you had to step on the window, so you kind of were stepping on the window...

Koppell: So there was actually an open space below you.

Keller: Yeah, there was, quite a bit of open space.

Koppell: We were fortunate that there was no wind. That would have really been extraordinarily hazardous. Quite amazing. As I said before, this system seems to have been very much lacking, and...

Keller: I'm not sure how you would have even gotten people strapped in to make that transfer. I mean, you think about it, if it's downward slope or even directly across from you, you might be able to get harness people in, but if you're going up 45 degrees it's a nightmare, I mean...

Koppell: I don't want to get into it, but you certainly could have someone in a harness that's attached to the cage, so that if he fell.

Keller: You could do that, but we were not strapped...

Koppell: Thank you very much.

Brodsky: I just want to add that I think to do it they have to answer that question, because they had to braid the straps and unbraid them, every single trip. There were five trips. I think they had to be very very cautious in not unbalancing the kind of false balance that were there. If they had maybe, someone had been hanging in some ways, you could have had a problem just the unbalance. I mean, that should be questioned, and that's why I say that has to be questioned: the weight, as you say, the space, also they can't use both of them at the same time – why? – and if in Switzerland the same manufacturer uses the same type of rescue system.

Liu: Thank you. And thank Councilmember Koppell. I think the point is very well made. The rescue personnel, they themselves were harnessed, but the passengers being moved from the tram car to the rescue car were not attached in any way except by the hand grip of the rescue personnel.

Keller: That's right.

Liu: And I think the point really also that it would not have taken that much more effort or time to add a harness to the people being rescued to the people before they were transferred over that gap. Is that a fair thing to say. You seem to be knowledgeable in mountain-climbing.

Keller: No...

Liu: I mean, how difficult would it have been for the personnel to...

Keller: I wouldn't say I'm an expert, except for the things you do when you go to sleep-away camp and they make you do the high ropes and things, you know, but they have these things already made up, they can strap tight various people very easily. I don't think it would have taken any more than five to ten minutes a person, but I'm not an expert on that. I will agree with you, Councilmember, and say there was a lot of luck involved. Whether or not the plans worked, and I know they like to say the plans worked, it was lucky.

Koppell: Thank you.

Liu: Thank you very much. We have limited time. We have written testimony that has been prepared by Congressmember Carolyn Mahoney; her representative was here and due to the time limit, that person was not able to stay, but We are submitting Congressmember Mahoney's testimony for the record. We also have Ms. Martinez-Miller, representative of Borough President Scott Stringer; I'd like ask her to come testify. Immediately after Ms. Martinez-Miller testifies We'll hear from a panel of residents including Thomas Templeton, Joel Bardy, Jacqueline Barnes, and Margie Smith. And those I will ask to limit their testimony to two minutes, or as brief as possible. Thank you.

Amy Martinez-Miller (for Borough President Scott Stringer): Good afternoon. My name is Amy Martinez-Miller and I'm here offering testimony on behalf of Manhattan Borough President Scott Stringer. Thank you, Chairman Liu, for quickly convening a hearing on the safety and efficiency of the Roosevelt Island Tram. It is important for the City of New York responds to the ongoing failure of the Roosevelt Island Operating Corporation to properly manage the Tram. The Tram power failure of April 18 which left nearly 70 people suspended over Manhattan and the East River for 12 hours was not the first such incident, but the most terrifying. It marks the fifth such incident since 1998 that has affected either Tram service or the safety of passengers. As recently as September 2005, and before that in 2003, the Tram suffered similar power losses of approximately two hours each. While the two prior incidents did not require rescue efforts,

they should have given RIOC reason to create a rescue strategy for emergencies such as last Wednesday's. However, despite these incidents, RIOC has not prepared such a strategy. It was not RIOC, but the City's Office of Emergency Management and the City's emergency services that put a plan into action to rescue the suspended passengers. It is time for RIOC to answer to the residents of Roosevelt Island, and time for RIOC to take seriously the well-being of the residents.

I support the mayor's call for a suspension of Tram service until a full investigation has been conducted and measures are taken to insure the safety of passengers are adequately protected. It is important that these actions be taken quickly. Due to severe crowding on the F train, the Tram is the preferred method of transportation for many who travel to and from the Island. Therefore, every effort should be made to lessen the impact of the loss of Tram service to all who use it.

The Tram is an iconic symbol of Roosevelt Island and should be fully inspected, repaired, and restored to service. However, three power failures in three years also point to a need for alternative modes of transportation for Island residents to Manhattan. Busing people through Queens to deliver them to Manhattan is not an acceptable solution. Particularly during rush hour, when such a commute could last well over an hour. Ferry service is an option many Island residents support and I feel deserves serious consideration. In addition, increasing F line service between Queens and Roosevelt Island during rush hour would be beneficial to commuters. Viable transportation options such as these would greatly improve the quality of life on Roosevelt Island. While RIOC remains delinquent in their duty to serve the residents of Roosevelt Island, New York City must step in. As elected officials, we must hold Governor Pataki directly responsible for these events and for providing solutions. Residents of Roosevelt Island deserve the same services as all New York City residents, which include a safe and efficient commute to work, and other activities. We must demand that RIOC come to the table with solutions for people of Roosevelt Island.

My office will continue to work to provide support for the people of Roosevelt Island, and I will continue to call on RIOC to engage in a true dialogue to improve service on the Island.

Thank you for the opportunity to testify.

Liu: Thank you very much. We have comments from Councilmember Lappin.

Lappin: Thank you. A number of witnesses today have reiterated the importance of redundancy when we're talking about transportation, whether it's Roosevelt Island or Staten Island or 65nd and Second, we need to make sure we have redundant transportation systems, and I'm happy to hear that the Borough President likes the idea of ferry service. I would welcome his participation; I have met with Tom Fox, who's thinking about bringing ferry service to the Island. I'd like to do the same to get a sense of what's out there. And I think it's to have more ways that people can get on and off the Island, not less.

Martinez-Miller: Thank you.

Liu: Thank you very much. Will the next panel please proceed: Thomas Templeton, Dr. Pardy, Jacqueline Barnes, and Margie Smith, and immediately after this testimony we'll hear from a panel consisting of Brian Baker, Sherie Helstien, and Matthew Katz. I appreciate the patience of everybody who has been part of this hearing. At this point we are going to ask that you limit your comments to two minutes. Your comments are important. At the same time, we kind of understand where your comments will be coming from and we are your advocates in this. Mr. Templeton, please proceed.

Dr. Thomas Templeton: How about Joel Pardee first?

Liu: Dr. Joel Pardee, please proceed.

Dr. Joel Pardee: Thank you. My name is Joel Pardee. I'm the Associate Dean of Research at Weill-Cornell Medical Center, and I'm here really representing the medical center, the medical college, and really the over 400 employees of our faculty and post-doctoral fellows who reside on Roosevelt Island. From the institutional perspective, the east side medical corporation one of the greatest concentrations of biomedical and patient care resources in the world, and in includes not only Cornell Medical College, but also Memorial Sloan-Kettering and the Hospital for Special Surgery as well as Rockefeller University.

The young professionals that we have living on the Island really provide critical medical care and biomedical research that has a significant impact on the medical research and biotechnology in all of New York City. I wanted to reiterate from our institutional perspective that the Tramway serves as an almost indispensable link between our residence buildings on the Island and the medical center. It's imperative for us to have around-the-clock service because medical and medical-science professions have to keep going on a 24-7 basis. Our faculty and post-doctoral fellows find the Tram far more convenient and faster and personally safer than the subway. The issue looms large for our residents, particularly since medical professionals work quite late-night hours, when subway travel is frightening to our young men and women, many of whom are from foreign countries. The Tram not only provides a crucially important alternative to the subway, but is really the much-preferred mode of transportation to the medical center. We just implore you to bring the Tram back just as soon as you possibly can, and to remind you that in some instances lives may depend on it.

Liu: Thank you very, very much, Dr. Pardee. Mr. Templeton.

Prof. Thomas Templeton: My name is Tom Templeton. I'm an Assistant Professor at Weill-Medical college and I'm here with that hat on my head but I'm also a resident of Roosevelt Island in the faculty housing, which I share with many post-docs, and I think everybody in this room agrees that the Tram is absolutely essential not only as a component of multiple transportation options to and from the Island, but also as an essential component of the quality of life, and speaking for myself, as a resident, I can speak on behalf of the hundreds of post-docs on Roosevelt Island from not only Weill-Cornell, but also Sloan-Kettering that New York has a very vibrant biomedical community and for Sloan-Kettering, Weill-Cornell, and also Rockefeller University, that the quality of life of the post-doc is one of the greatest concerns that New York City faces in having our biomedical community on a par with other cities such as Boston, San Diego, Seattle, Washington DC, and the Tram is essential to that vibrancy. With the Tram, Roosevelt Island is integrated into Manhattan. Without it, it is claustrophobic, the East River becomes a much greater barrier. We need multiple transportation options, not only the subway, but also the Tram.

Liu: Thank you very, very much, Mr. Templeton. We now have Ms. Barnes.

Jacqueline Barnes: Yes. I'm Jacqueline Barnes. I'm one of the nurses that saves lives at the hospitals they just talked about. I work at Sloan-Kettering, and I have a couple of things to just clarify because of wisdom as you get older. Mr. Berman needs to acknowledge that the material he used for his historical background came from Judith Berdy, who is a resident who lives on Roosevelt Island and, if you haven't read her book, I suggest you do.

The use of a ruler with Doppelmayr would have stopped the haul rope from being eight feet short, which was one of our shutdowns. The radio communication has always been terrible. And

luckily for Roosevelt Island, I lost the presidency of RIRA many years ago by 14 votes. I moved to Roosevelt Island 25 years ago for one reason. I found an apartment I could afford, I thought, and would have adequately for my four children.

We have another problem on Roosevelt Island, and that's called privatization. That's another story.

At the time I was camping out in a friend's apartment, with furniture in California, children doing summer jobs that providing housing because I didn't have any, and working on Third Avenue with a job that was the worst job I'd ever had. On Saturday of a beautiful day, I decided to walk with a friend from 95th and Riverside to what is affectionately called "the God box," that's where the apartment was, and to walk off some frustration of the 72 apartments that I had seen and could not afford, and if I could have afforded it I wouldn't've lived in it. We had a four percent vacancy at the time, and this was in 1981. I was put on the list of Roosevelt Island by the State, but I was around the 200 number. While I walked to the Roosevelt Island Tram, which was my initial invitation to the Tram, [BUZZER INDICATES TIME EXPIRED] I found out my friend had claustrophobia, but I – he kept his eyes closed and I talked him into what I was seeing, which was absolutely the most beautiful site in the City.

Liu: Thank you, Miss Barnes.

Barnes: I haven't finished, and I'm not going to leave. I really have preached to the choir. OK?

Liu: We will need to hear from Miss Maggie Smith and...

Barnes: OK, can I just...

Liu: Once everybody has had a chance to say their piece, we'll be happy to come back to you. Miss Smith, please proceed.

Margie Smith, Vice President, RIRA: I'm Margie Smith. I'm Vice President of the Residents Association. I want to start by thanking you very much for convening this hearing. Jessica said practically everything that I was going to say, but I'll take probably 30 seconds. I think the point here is the symptom is the problem with the Tram today, but the disease is RIOC. If they had asked those questions that all of you asked today a year ago when We got a couple of clues about outages, We wouldn't be here today. The backup system would have been working. If they had maintained that Tram, We wouldn't have this problem now. And the fact is, I think everyone has said, that the Tram is just not a tourist attraction; it's critical. There are several disabled and seniors who called me last night and said, "I hope somebody's going to be there to speak for us." They are just too scared to maneuver and try to use the subway system, because it's very far down. Some of them have never been on it. They need this as a lifeline. We're also isolated as a community. Our population is probably going to be double in the next few years. We can't get on the F train as it is now. And unlike Manhattan, if the F train is down, we can't walk a couple of blocks to the E train. We're just stuck. So it's absolutely critical that We have that redundant service. It's also critical that, whether it turns out that the Tram gets revamped or that we get a brand-new system, that the City keeps an eye on what's going on, because we're just going to be here six months into the new system with the same problem. Thank you very much.

Liu: Thank you very much, Miss Smith for your comments and your brevity. [Liu then calls the next panel.] Again, I want to thank everybody for coming today, for sitting through what has become a lengthy hearing, and respecting that we do need to keep to the two-minute limit just because we have another hearing coming in at 1:00 o'clock. Rest assured that we do appreciate

the comments. It seems at times that the other people get to testify for so long, but those are people that committee has deemed necessary to have here to answer questions from us and, in most cases, people who were here for a very long time never wanted to be here for that long.

Mr. Baker, please proceed.

Brian Baker: Hello. I'm Brian Baker and I represent Manhattan Park on Roosevelt Island. It's 1,100 apartments. We have many residents that are senior citizen and handicapped. Approximately 45% of our residents are employed by the United Nations, and the Tram is their mode of transportation. I'm just here to support the Tram. Our residents want the Tram. It is a vital. It would be detrimental to Roosevelt Island if the Tram were to stop. Thank you.

Liu: Miss Helstien.

Sherie Helstien: Hi. My name is Sherie Helstien and I'm the secretary of the Residents Association. I can agree with almost everything that Margie has already said. I wanted to point out one thing before I actually start my little speech, and that is that RIOC, having the responsibility for running everything on the Island, made a crucial decision several years ago to remove one of the personnel who would be in... on the Roosevelt Island side and there is like a glassed-in office and that person who used to be in that office would watch the Tram and I was listening to the testimony from Mr. Bee that in order to manually hold the brakes open and run the backup to get the Tram into the cabin could not be done because there was nobody who could actually see where the Tram was in its progress back to the station. And if possibly I would love to have heard this question answered if RIOC in all its wisdom and cutting you know cutting from the budget, which they were trying to protect, if they kept that person in that glassed office, they might have been able to manage something, or there during this process. That's all. That was an observ... that was something I recalled while that testimony was going on.

Also, the State does not own the land. It leases the land from the City. Mr. Berman said that the State owns the land on which our buildings sit. I don't know if that was just a gaffe or what that was.

OK. Roosevelt Islanders are greatly disturbed by the parroting in the media of Bloomberg's recent comment that our essential Tram may have outlived its usefulness after 30 years. I don't think I need to remind you that there are systems that are older [BUZZER], and who have had accidents but they are not shut down for life. They are put back on line. New Yorkers...

Liu: Thank you, Miss Helstien.

Helstien: Can I just do my one resolution and I will be done?

Liu: If you can wrap up in a couple of seconds.

Helstien: I'm here to ask the City Council to pass a resolution urging RIOC to impose a moratorium on all new residential construction on Roosevelt Island until a positive resolution to transportation problems occur, including anything that can be done regarding subway service, having taxi, water taxi's fine, but what we're hearing is that it's going to be put in, that they're thinking about Octagon which is way north of the main residential section of the Island.

Liu: Thank you. We understand the point of the resolution. Mr. Katz.

Matthew Katz: Yes. Thank you. I'm speaking as a past two-term president of the Residents Association, elected by the residents of the Island.

I thought it was unfortunate when *The Times – The Sunday Times* had the temerity to suggest that the Tram had become a quaint relic by virtue of its 30-year service. I was reminded that the subway is over 100 years old, has caused death and destruction; no one is even considering shutting that down. I also think it's remarkable how this essential component of New York's transportation web is the only component of the system not subsidized by government, possibly in the entire United States. Every penny of its operation is paid for by the people who live and work on Roosevelt Island.

I'm not going to go into the questions of the overcrowding on the Tram, or the disabled population, this has been done.

What is required here is more oversight of the operation, maintenance, and backup systems of the Tramway. Clearly the redundancy of electrical systems was built into the Tram's design, but not adequately maintained, and the last-ditch fallback – the open-basket rescue – saved the day during the recent incident. But let's be clear. This was not some jerry-rigged device that New York's finest dreamed up at the last minute. This was a planned fall-back procedure that worked flawlessly without causing injury or casualty. I think you will agree the Tram has served our community safety, reliably, and it is essential to the life of Roosevelt Island.

RIOC and the State of New York must provide competent, knowledgeable and experienced professionals to oversee Tram operations or these responsibilities must be delegated to those who are able to do the job.

The recent Tram incident was a failure of oversight, not of equipment. Mechanical and electrical equipment will wear out, and will fail, if not looked after and replaced in a timely way. Roosevelt Island is owned by the City of New York [BUZZER] and the Tram operates under a City franchise. My hope is that this body will use its influence to insure the continuity of Tram service assured for a long time to come.

Liu: Thank you very much, Mr. Katz. Ms. Jacoby?

Arline Jacoby: I want to thank all the councilmembers today. You have restored my faith, and I am so glad that the City is now overlooking us, because we have always heard that we are not part of the City, Roosevelt Island is run by the State, and really I beg you to investigate everything because there are so many things that need your attention. And I've heard that term redundancy today and what I am saying is that it's redundant and the doctors mentioned it and Jessica mentioned it as you visually think of First Avenue this is where all our hospitals, our major hospitals of this City and this country are located, and this is... Our Tram is important. It takes the senior citizens there. And it takes the disabled who cannot get there, they have elevators on the Tram and they can get up and down Second Avenue, and it's very important for that reason to maintain the Tram and from what you say, I think we're going to have a better Tram and hopefully, with you watching over us. And thank you very much.

Liu: I assure you and everyone else that from the moment she was elected Councilmember Lappin has been looking over all the residents of Roosevelt Island.

[APPLAUSE]

Jacoby: Can I just take a second? I was very badly injured, not on the Tram, by other lack of infrastructure, taking care of. They're building big buildings on Roosevelt Island, taking trucks and paving are all dislocated, and I fell. And that was a year ago, and I'm still suffering from that, and you know, nothing done.

Liu: Thank you, Ms. Jacoby.

Lappin: And thank you for bringing up the point about being close to the hospitals. I want to reiterate that really we're a partnership on the East Side and Pete Grannis and Carolyn Mahoney and I are all working together because it's not the State's responsibility or the City or the Federal government solely, it's all our responsibility as your representatives in government, to work together to make the Island the best Island it can be.

Helstien: There's a lease between the City and the State as you all know, and that lease needs to be carefully watched, because the State is mismanaging your property.

Liu: Thank you. [He calls the next panel of witnesses.] I want to thank you in advance for your very, very witty testimony. Brevity is the soul of wit; we also have a hearing that is supposed to be commencing right now... Miss Fitzgerald.

Jennifer Fitzgerald: Hi. My name is Jennifer Fitzgerald, and my husband is an international AIDS researcher at New York Hospital, and he's on the faculty at Cornell. I'm a nurse myself. But we moved here from Haiti two years ago, but not only the convenience to the medical center but with three children, young, I have twin boys, they are six, and a nine-year-old daughter, I can't tell you the community that the Tram builds, you know, we're Red Sox fans and there's two Tram operators that love the Red Sox. You know, the Tram operators, they know my kids' names, they know where they go to school, they know when they have homework, and it's really been such a community-builder for us. Moving here, I think New York City can be an impersonal big city, and the Tram really has provided the situation where it's built a small community. I think for children the subway is intimidating, especially for small children, security issues in the subway, six-year-old boys, and the Tram waits – it's much more child-centered. Thank you.

Frank Farance: Thank you, Councilmember Lappin. Thank you to the chairman, too. I distributed some comments. I'll just go over the points that have not been addressed. My name is Frank Farance and I'm the 26-year-old – uh, 26-year resident of Roosevelt Island [LAUGHTER]. Yeah, I look 26 years old. I wish. And basically, I'm looking at this from an emergency response point of view. So, according to one of the firemen I had spoken with, Rescue One was trained on the Tramway for rescue procedures, yet they weren't involved. It seems to me there was a coordination breakdown at some point. Regardless, how was a construction crane part of the written plan? I don't see how it is. That seems to be an ad hoc plan, and now we discover at that now both baskets don't work. Isn't that something someone would have figured out 30 years ago?

OK. All operating procedures for mass-transportation or commercial transportation facilities have minimum equipment lists. Why doesn't have the Tram have such a procedure or checklist to use in their operation and in their emergency operation? A given piece of equipment was needed to be repaired from last summer's Tramway outage, why didn't RIOC provide an alternative that would reduce the rescue time? In other words, someone at RIOC must have thought, with this piece of equipment in repair, if the Tram breaks down, we're going to have a very long rescue effort. Or was there no plan about safety given the different operating configuration?

As the councilmember said, this was luck. This was under ideal conditions. If conditions had been hotter or colder, rain, snow, wind, we were incredibly lucky. Don't the rescue plans need to be changed if eleven hours is our best effort? It was mentioned that the Tramway console operator was minimized. I think that could have helped in this. It's also been mentioned from several that there's this mantra in RIOC of self-sufficiency [BUZZER]. That really has to change

basically because Pataki and RIOC have chosen political ideology over public safety, and this must stop. Thank you.

Sharon Bermon: Frank, tell me when I'm at two minutes.

I'm Sharon Bermon. I'm a 30-year resident of the Island and I thank you for having this hearing and Jessica, we love you, thank you very much. Look, everybody's talking about institutional issues, issues of safety, engineering issues, and a lot of people are going to be talking about the fact that not having the Tram is a problem for, among other constituencies, people with disabilities, seniors, and women. OK. I happen to fall in all those categories and there's something very personal with me.

Several months ago I made the decision to participate in my first multi-day bike ride to raise money for an organization. Three days, 210 miles, it's about 75 miles a day, it's more than I've ever done in a single day, and I've certainly not done it for three days, in Seattle, for the Crone's Foundation to raise money for colitis. I have Crone's disease. Most of the people doing the ride will be doing it for people who can't do it themselves. One of the reasons that I am relatively asymptomatic according to my physicians, and I work in public health, is my life style. People who know me will tell you that I'm quite active.

I made the commitment to do this. This is really personal, OK, but it all comes down to personal stuff for each one of us. I made the commitment to do this deciding that I would ride my bike several days a week to appointments, to place where I work or teach or whatever, and it's almost impossible to do it without the Tram, and it's even more impossible to do it coming back in the evening. Somebody suggested to me that I should ride over the bridge to Long Island City and there's no way I'm going to do that at 11:00 o'clock at night on my bike. OK? Did you have a question? [Councilmember answers "no."] So I just want to say that every one of us has a story and they are all compelling stories and we are pretty much dependent on you guys [BUZZER] to give us what we need, which our Tram back. Thank you.

Lappin: Mr. Atkins.

Martin Atkins: Before I start, where is Mr. Berman? I was here to listen to him.

Lappin: Please identify yourself so we can record this for posterity.

Atkins: OK. My name is Martin Atkins. I [have] live[d on Roosevelt Island] for 30 years. I was here to listen to Mr. Berman. Where is Mr. Berman now to listen to myself and everybody else that spoke. They always turn deaf ears, and I'm only going to mention a few things. The problem with the failure of the third generator was a deliberate act by RIOC as a result of them not repairing the third generator very aggressively during the seven months since the Tram stopped last September. There is no excuse or argument for this giant oversight. Mr. Berman is focusing the attention on how well the Tram rescue attempt was made, but he is not making the real center of attention on prevention and why another backup generator could not have prevented the entire eleven-hour ordeal. RIOC's infrastructure that is outdated and must be reexamined and replaced. Simple things, like why did the Tram operator not have a spare battery? It's not a million-dollar expense. I carry a spare battery for my stupid little cell phone. Why did the Tram not have a spare battery for the operator? That's it.

Lappin: Thank you.

Liu: Mr. X.

Person identifying himself only as Mr. X: There should be a ferry service between [UNINT; NOISE] and Roosevelt Island. Multi ferry service, since passengers can't get access to the F train. And regarding the April 8th disaster, I just want to let you know, if you put me through a trauma like that, don't even bother talking to me. That's it.

Lappin: Thank you. I just want to say I really appreciate the time and the effort of the residents who were here today to come and testify, specifically, the people who submitted written testimony even if you weren't able to read all of it, we have it, I'm going to read through, and I think there have been very important points made in terms of harnesses, in terms of communication, in terms of the length of time took, whether or not these drills were done with people in the baskets. There are a host of issues that were raised by the people that were here, and we're going to follow up with RIOC and communicate the points that were made, because I don't see anybody from RIOC here. Is there anybody from RIOC here? [Audience member answers "No, they all left."] So I'm going to pledge to you that I will communicate to RIOC all the points that you made to them, because they were important ones. And with that said, since I see nobody else here wanting to testify, we're going to adjourn this hearing.