SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF RICHMOND DCM PART 19

Vincent Caccese,

Plaintiff

against

Liehberr Container Cranes, Ltd, Liehberr Cranes, Inc., and Cargotec Services USA f/k/a East Coast Cranes and Electric

Defendants

DECISION & ORDER

HON. Philip S. Straniere

Index. 100165/10

Liehberr Container Cranes, Ltd,

Third-party plaintiff

against

Cargotec Solutions, LLC

Third- party defendants

The following items were considered in the review of this motion for Directed Verdict

Papers	Numbered
Motion for Directed Verdict	1
Affirmation in Opposition	2
Replying Papers	3
Exhibits	Attached to Papers

Upon the foregoing cited papers, the Decision and Order on this Motion is as follows:

Plaintiff, Vincent Caccese (Caccese), commenced this Supreme Court action against the defendants, Liebherr Container Cranes, Ltd. (Liebherr), Liebherr Cranes Inc., and Cargotec Services USA f/k/a East Coast Cranes and Electric (Cargotec), alleging that owing to the actions of the defendants, plaintiff suffered personal injuries. Defendant Liebherr filed a third party action against third party defendant, Cargotec Solutions, LLC. Plaintiff had discontinued its direct action against Cargotec. A bench trial commenced on February 23, 2015 and continued until February 27, 2015, when plaintiff completed his direct case. All parties are represented by counsel.

At the close of the plaintiff's case, defendant Liebherr moved for a directed verdict. The court reserved decision on defendant's application and ordered the parties to submit their respective arguments on papers and set a schedule for that purpose.

Background:

On August 9, 2007 plaintiff was employed as a "longshoreman" at, and by, New York Container Terminal (NYCT), at its facility on Staten Island, New York. Plaintiff was working as a driver of a vehicle which consisted of a cab and a trailer. In the industry, the cab is referred to as a "hustler" and the trailer as either a "redbird" or "bomb cart." Plaintiff's job was transport containers from dockside after having been unloaded from a container ship, drive the container to another area of the property, where the container would be unloaded and stored until loaded on a tractor trailer for transport off the site.

At approximately 1:00 AM, plaintiff alleges that a container was lowered onto to his redbird at an unsafe speed and in a skewered position causing the container not to land on the redbird straight but at an angle with the right side off line and slightly forward on the redbird. Plaintiff contends that the impact threw him around the hustler causing his injuries. He admits he was not wearing a seatbelt at the time. Plaintiff was precluded from bringing a civil action against the crane operator as the operator is also an employee of NYCT. This limited any claim against his co-worker or NYCT to resolution under New York's Worker's Compensation Law.

The crane which was being used to lower the container was one of two installed at NYCT's property for its predecessor, by Paceco on or about 1984. In 2005, NYCT contracted with Liebherr to refurbish the two Paceco cranes primarily to add twenty (20) feet to the crane so as to accommodate larger container ships and remain competitive in the industry. Liebherr entered into a written agreement with NYCT to serve as the designer of the refurbished crane and its elements.

Plaintiff alleges that there was a failure of the slowdown feature in the refurbished crane which caused the container to be lowered at an excessive speed and in a skewered manner. Plaintiff asserts that this was a design defect that Liebherr failed to correct and that the incident could have been prevented by Liebherr providing a "state-of-the-art" system which used absolute encoders as a redundancy to control the slowdown process.

Plaintiff has asserted four different theories of liability: 1) design defect under strict liability; 2) products liability arising from a negligent design; 3) breach of an express warranty; 4) breach of implied warranty.

Defendant alleges that assuming that the incident occurred as the plaintiff asserts, the plaintiff is unable to establish that the system designed to control the lowering of containers over land failed to operate as designed as there is no evidence of any mechanical failure being reported, a stoppage in the unloading process to investigate the incident and check out the system, or any subsequent repair. Defendant contends that there is no need for a redundant system using absolute

encoders as the system installed worked properly. Defendant denies having received any notice of a malfunction of the system at any time prior to the incident and there was no report to it of a malfunction on the date in question until the litigation was commenced.

Part I: Documentary Evidence Presented At Trial

A. Analysis of the Contract Terms.

As part of the trial record there are numerous exhibits. Included in them is the "Crane Construction and Erection Agreement"(Exhibit 30) dated December 1, 2005 between NYCT and Liebherr. Throughout the agreement any mention of the "Contractor" is a reference to Liebherr.

The contract opens with the following clauses:

> WHEREAS, NYCT will require refurbishment and modifications of cranes 1253 & 1254 in order to efficiently and expeditiously operate the Facility; and
>
> WHEREAS, NYCT has conducted a search for a competent contractor to refurbish and modify (design, install, test and place into operation) at the Facility for the account of NYCT two (2) shore-based container handling gantry cranes, all in strict accordance with the terms and conditions set forth herein; and
>
> WHEREAS, Contractor has represented that it is a competent contractor and can perform the Work in strict accordance with the terms and conditions set forth herein.

Analysis: As will become apparent below, although Liebherr is the "designer" of the refurbished cranes, the bid specifications were provided by NYCT and Liebherr was to submit plans for the refurbishment of the cranes consistent with the needs, specifications and systems then existing on the cranes.

In the definitions section of the Agreement NYCT's has designated as its "reviewing Engineer" Gottlieb, Barnett & Bridges, LLC. (Gottlieb).

Analysis: A clause such as this calls into question just how much independence Liebherr had in designing the refurbishment of the cranes and to what extent NYCT was relying on Liebherr in that regard. The existence of Gottlieb as "reviewing engineer" means that Liebherr's actual role in the project was being monitored.

The Contract provides:

Section 1.2 INTENT

It is the intent of this Agreement, including the Specifications, the Supplements and Contract Plans, forming a part hereof, to provide for the refurbishment and modification of NYCT cranes 4 & 5. NYCT will employ a 3rd party design consultant to confirm design requirements in respect of 20'

structural raise, such as, structural reinforcements, additional stability requirements, tie down modifications and to verify if any changes are required to the storm anchors and gantry travel drive mechanisms.

Analysis: This portion of the contract establishes that NYCT in addition to its own reviewing engineer (Gottlieb), NYCT was hiring a third party design consultant to confirm the design requirements for the twenty foot structural raise. This too question exactly what was Liebherr's role in the project other than execution of the design plan.

> The Contractor will be responsible for the design of the cranes within the limitations of the contractor's scope of supply....

Analysis: This appears to limit Liebherr's responsibility only to those items specifically within its scope of supply. The implication is that other entities will be responsible for other aspects of the project.

> NYCT is purchasing the expertise of the Contractor. The Contractor is invited to point out elements of the Specifications that are inconsistent with good design and selection of materials, quality and schedule control, operating practice and other contractual considerations. NYCT desires to work with the Contractor to gain the benefit of its expertise.

Analysis: This paragraph clarifies what NYCT expects Liebherr's role will be in the project. Contrary to plaintiff's contention that Liebherr designed the entire refurbishment project, this confirms that Liebherr was working from specifications provided by NYCT or its agents and that Liebherr was to point out problems with proposed design. If Liebherr believed some existing system was outmoded or unsafe then presumably Liebherr would present that information to NYCT and NYCT and its engineers would decide whether to replace the system. The evidence indicates that the over land slowdown system on the Paceco cranes was deemed by Liebherr to be effective and safe and not in need of replacement or having a redundancy system installed. There is no evidence that either NYCT or its consultants sought to have Liebherr install any system other than the one currently existing in the cranes.

> NYCT's intent is to purchase the control system and other refurbishment and modification items with all appurtenances and capital and consumable spare parts needed for its maintenance and operation; however, the Contractor recognizes NYCT's right, at any time or from time to time, to replace any part if these systems directly from the subcontractor or vendor of NYCT's choosing. The Contractor agrees that it has not made nor will it make any agreement with any subcontractor of vendor which would nullify or restrict NYCT's right hereunder.

Analysis: This paragraph establishes that NYCT is going to purchase the control system and other modifications and not necessarily Liebherr. This could mean either that NYCT will be the direct purchaser of these items or that it will do so through Liebherr. In any case, NYCT retained the right to purchase systems directly from subcontractors or vendors. It must be concluded then that NYCT had the ultimate say in what systems were being installed on the refurbished cranes and not Liebherr.

Section 1.4 RESPONSIBILITY FOR LOSS OR DAMAGE TO THE CRANES AND ALL COMPENTS THEREOF

...Contractor shall remain responsible for, and indemnify NYCT for any loss or damage as a consequence of the failure of parts, components, assemblies as installed as part of this contract agreement and during the performance of the Contractor's obligations....

Neither the subcontracting by the Contractor of any parts of the Construction nor NYCT's approval of such subcontracting shall in any way relieve the Contractor from any liability or obligation under the Agreement.

Analysis: Liebherr is assuming responsibility for any loss or damages suffered by NYCT for the failure of the parts, components and assemblies installed by Liebherr. There is no evidence that NYCT has filed a claim in regard to a component failure arising from this contract, especially arising from a failure of the components of the over land slowdown system. This section does not make Liebherr responsible for "design defects" as plaintiff alleges caused the incident. It too supports the conclusion the other entities were the actual designer of the system.

Section 1.9 ITEMS REQUIRING NYCT'S CONSENT

The following is non-exclusive list of items that require NYCT's consent (such consent not to be unreasonably withheld):

1.9.10 Design, drawings, calculations, catalog information and shop detail drawings (Refer to 2.21)

Analysis: Again in spite of assuming responsibility for the failure of components, this paragraph indicates that NYCT had final approval of the design of the project and therefore if it as the purchaser of Liebherr's services felt the design was either inadequate or outdated, NYCT was the ultimate decider of that.

Section 2.4 CHANGES, MODIFICATIONS AND EXTRA WORK

NYCT or NYCT's Engineer will each have the right to order changes in, or modifications of the Work in writing.

Analysis: Rather than as contended by plaintiff that Liebherr was responsible for the alleged deficient design, the contract retains in NYCT or its engineer, Gottlieb the right to make changes.

Section 2.16 WARRANTY

2.16.2 In the event that any part of the cranes or its components appears to be defective in design, manufacture, materials, equipment, fabrication, or workmanship within the period of warranty applicable to that part or component, NYCT will immediately notify the Contractor in writing or by telecopier (fax) of the alleged defect or failure.

Analysis: There is no showing that NYCT even after being made aware of the incident ever made notified Liebherr that the cranes were defectively designed. Although the crane operator testified as to prior problems with the slowdown, there is no indication that any notice of a problem was ever communicated to Liebherr. Presumably, Liebherr refurbished the cranes in conformity with the specifications provided by NYCT and its engineers.

Section 2.19 DESIGN RESPONSIBILITY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN WORK ASSOCIATED WITH THE REFURBISHMENT AND MODIFICATION OF THE CRANES.

The Contractor will design and shop detail all work as required by the contract scope of supply. The Contractor is not responsible for the accuracy of the analysis work performed by NYCT's 3rd party engineers.

Analysis: Liebherr is again assuming responsibility for the design work associated with the refurbishment, but all design work is to be reviewed by NYCT's engineers. The only reading of this paragraph and other similar ones is that Liebherr is assuming responsibility for execution of the design, while NYCT and its engineers had ultimate responsibility for approving the design to be executed by Liebherr.

Section 2.20 CONTRACOTR'S DRAWINGS, CALCULATIONS AND CATALOG INFORMARTION

The Contractor, in conjunction with NYCT's 3rd party design consultant shall submit for review by NYCT's Engineer copies of all design drawings, calculations and catalog information used to refurbish, modify, and relocate/skid the cranes. At a minimum, the drawings, calculations and other required submittals shall be submitted for review. No deviations from the specified concepts, systems or components proposed by the Contractor shall be included in this review unless specifically called to the attention of NYCT's Engineer in writing and approved in writing.

Analysis: This again confirms that responsibility for the ultimate design is with NYCT, its engineers and design consultants. In fact, should Liebherr have proposed a deviation from the bid specification, NYCT's engineer had to approve.

> The sole purpose of the review is to verify compliance of the design concept with the Specifications. It is not to be construed as a check of the adequacy of the Contractor's design and in no way relieves Contractor of its responsibility to conform all the requirements of the Specifications and to guarantee the adequacy of the equipment furnished for the intended purpose....

Analysis: Liebherr is to comply with NYCT's specifications and guarantee the work it does in conforming to those specifications.

> The information will be clearly presented so that NYCT's Engineer may check all details for conformance with the Specifications....(T)he Contractor will submit a schedule of drawings together with the anticipated dates upon which they will be submitted. NYCT's Engineer will be the sole judge of the adequacy of information presented....

Analysis: NYCT's engineer is charged with checking Liebherr's design details against the specifications provided by NYCT. Therefore if the design does not conform to the specifications of NYCT, NYCT was to inform Liebherr. There is no indication that NYCT or its engineers ever objected to having Liebherr reinstall the existing over land slowdown system.

Section 2.21 OPERATING INSTRUCTIONS, MAINTENANCE AND INSPECTION MANUALS

> ...Such manuals will be reviewed and commented on by NYCT's Engineer promptly after receipt by NYCT's Engineer....
> The crane Operator's instructions shall be bound separately and all manuals shall contain an index and shall have a had cover binding.

Analysis: As set forth below, Liebherr complied with this requirement and as has been consistently shown, NYCT had the ability to review the manual.

B. Analysis of Specifications.

In addition to the Contract between NYCT and Liebherr, Exhibit 30 (and several other exhibits) contains the Specifications. They are labeled "Specifications For Refurbishment of Paceco Portainers." The Specifications are dated August 9, 2005 and therefore were prepared five months before the Contract which is dated December 1, 2005. It supports the conclusion that NYCT developed the Specifications for the project and that Liebherr's function was to execute a design from those Specifications.

Section 1.3 Crane Raise (Bid Form Item 10.0)

> In all quotations to date LIEBHERR have understood NYCT would employ a third party consultant familiar with the detailed design of the Paceco to check the following when considering the 20' crane raise-...

b) Gantry travel drive system has sufficient capacity to safely drive and brake in all wind conditions after the 20' raise due to increase weight and wind area....
Given NYCT are already employing the services of a consultant with experience of Paceco cranes we believe it appropriate that NYCT also employ the same consultant to undertake the structural analysis.

Analysis: The specifications continue the language of the contract in that NYCT is employing third parties to oversee the actions of Liebherr. In this case the third party consultant would be checking gantry travel drive systems.

The Specifications then set forth the "Existing Operating Parameters" including "operating speeds" and "electrical specifications."

Section 2 of the Specifications refers to the "Scope of Supply-Electrical."

Specifically, in regard to the "Trolley Travel/Boom DC Drive and Control Panel" the Specifications require:
One (1) LIEBHERR Divergent drive with micro processor control for four quadrants. The drive system will be configured to run trolley or boom on a "first come first served basis."
Interbus Bus communication with PLC.

Reference is then made to the PLC. It requires:
Siemens S5-115U PLC unit.
Interbus Bus module for communication with DC and remote I/O modules.
Input and Output relay modules.
Control transformer.

New electrical switchgear will have power factor correction equipment as per existing IR1640-43.

Section 2.6 Limit Switches requires
Supply and install the following limit switches as required.
One (1) set of replacement rotary cams, encoders, and other miscellaneous limit switches for main hoist, trolley travel and boom drive logic.

Analysis: There is no allegation that Liebherr failed to install any of the above items as required by the specifications. In fact, the use of the words "as required" in regard to the limit switches indicates that the specifications anticipate that there may be no need to replace properly functioning limit switches or updating to a more modern system.

Specification Section 4 refers to Crane Move and Raising
Section 4.1 Crane Raising

With additional reference to our "Comments to Tender" document dated 25th July 2005 it is understood NYCT will employ a third party consultant familiar with detailed design of the Paceco crane in order to check....(five areas are specifically listed)

Our specifications for the crane raise is on the basis of the above third party consultant providing relevant force/load data at the various locations on the crane allowing LIEBHERR to design and manufacture the required structural modifications.

Analysis: Again Liebherr is relying on either designs or calculations from third party consultants to check the functionality of the proposed design.

C. Liftech Proposal

Another document submitted as an exhibit is a proposal dated September 26, 2005 from Liftech Consultants Inc. addressed to Douglas Jimenez, Director of Crane Maintenance, at New York Container Terminal.

The document begins as follows:

Thank you for inviting us to provide our structural engineering services for the referenced project. Our proposal below is in response to your request of September 7, 2005.

We understand that NYCT will award a contract to modify and refurbish two Paceco cranes to Liebherr Container Cranes Ltd. As part of the contract with Liebherr, NYCT has offered to retain an engineering firm to provide structural design of the modifications related to raising the cranes. NYCT has requested Liftech for such services.

Liftech will design modifications to access structures, conductor bar supports, and structural attachments for all mechanical and electrical components.

NYCT has retained GBB to prepare the technical specifications, manage the project, conduct design review, and provide advice to NYCT for the crane modifications.

NYCT has provided technical specifications for the crane modifications. Liftech has clarified these earlier and noted assumptions that modify the specifications....

Analysis: NYCT's agreement with Liftech confirms the information contained in the contract and specifications. Independent third party consultants prepared the specifications for the refurbishing of the cranes and would review all design for the modifications. Liebherr was providing services or designs that only were

approved by NYCT and were also cleared by NYCT's third party consultants. The source of the specifications was NYCT and not Liebherr. No one challenged the proposed reuse of the existing over land slowdown components.

Clarifications
Liftech modification scheme may be different than that shown in NYCT technical specifications.

NYCT will check the adequacy of the wharf tie-down hardware, gantry bumpers, crane stops, and the non-structural components of the gantry equalizer system for loads from the raise crane structure.

Analysis: Liftech was using specifications provided by NYCT and not from Liebherr. The adequacy of crane stops and non-structural components of the gantry equalizer system rested with NYCT.

D. Attachment in Appendix E After Performance Bond

There is no description as to what is the source of the exhibit paginated LCC 0199 through LCC 0252. However, whatever the source of the document it contains several important clauses. It apparently is part of the contract between NYCT and Liebherr dated December 1, 2005.

Section 3-CRANE(S) CHARACTERISTICS

3.1 GENERAL DESCRIPTION AND PERFORMANCE

The scope of these Specifications shall include but not necessarily be limited to, the design, supply, installation and testing required to complete the required refurbishment and modifications of New York Container Terminal's (NYCT) two (2) existing Paceco 40 long ton ship to shore container crane(s), and all other items contained in these Specifications, ready for service at the NYCT Staten Island, New York site.

The crane(s) are currently fully operational and completely equipped in all respects with all necessary electrical, mechanical and structural components to provide reliable container handling service. The intent of the specific refurbishment and modifications, described herein, are to enhance, the reliability of the equipment, replace worn and/or antiquated components, and modify the lifting height of the structure to accommodate current vessel characteristics. The Contractor shall be responsible for providing all essential items to ensure that the crane(s) refurbishment and modification work is done in a manner which will ensure a complete, efficient and "trouble free" transition.

NYCT will provide to the successful bidder a copy of the drawings on file at NYCT which are pertinent to the required refurbishment and modification work.

These Specifications contain many references to "equal to" or "NYCT approved equal." It will be NYCT's right and discretion to approve or disapprove a Contractor's alternative proposed supplier, and the final selection component suppliers shall be at NYCT's discretion. The Contractor shall remain responsible for the system design and implementation of all components. (Underlined in original).

Analysis: **This confirms that the specifications arose from NYCT and not Liebherr and that NYCT had the right to select suppliers of component and that final selection belonged with NYCT. This means that the components of the over land slowdown system installed by Liebherr were approved and selected by NYCT.**

Section 4-TECHNICAL REQUIREMENTS
Section 4.1 STANDANRD SPECIFICATIONS

Reference to Standards or any other Mandatory Documents in these Specifications relates to their latest issue current at the time of placing the order.

The Specifications is written on the basis of F.E.M. 1.001 3rd Edition Revised 1998.10.01 along with applicable CMAA, DIN and British Standards. Other applicable equivalent Specifications will be considered.

Electrical work shall comply with NEMA, IEEE, NEC, UL, CSA and other applicable local codes, agencies or bodies having jurisdiction at the Erection Site.

The Work shall comply with applicable portions of the US Department of Labor, Occupational Safety and Health Administration (OSHA).

Section 6-ELECTRICAL SPECIFICATIONS
Section 6.1 GENERAL

It is the intent of NYCT for the Contractor to provide all labor, material and equipment to design, purchase, install and test all required equipment and appurtenances relating to the specified electrical refurbishment....

Responsibility for the reliable operation of the equipment and completion of all required electrical refurbishment work in accordance with the requirements of this Specifications shall be borne entirely by the Contractor. However, the selected control system supplier shall be responsible for all electrical system refurbishment design, installation and testing within their scope of supply and integration....

The refurbished electrical control system and electrical components shall provide reliable, safe, rapid and precise handling of containers in continuous loading and unloading operations. The Contactor and control system

supplier shall demonstrate by testing that all new components are integrated with the existing electrical system and that the crane meets or exceeds the original performance characteristics.

Analysis: Although Liebherr is responsible for the operation of the equipment, the control system supplier is responsible for the proper functioning of the electrical system. As pointed out elsewhere, NYCT selected the control system supplier independent of Liebherr.

Section 6.2 ELECTRICAL CONTROL SYSTEM

The control system supplier shall provide new main hoist, trolley, boom hoist, and gantry drives. The system shall be the latest state-of-the-art static DC variable voltage, stepless, regulated, reversing and regenerative over the entire range of speeds as manufactured by an NYCT control system supplier....

The new electrical drive system for main hoist, boom hoist, trolley, and gantry motions shall provide reliable power for rapid, smooth, and precise handling of containers through the use of thyristor armature voltage power conversion units controlling the existing shunt-wound DC motors. The system shall be designed for maximum simplicity and maintainability. (This is to be demonstrated during the submittal and review process)....The systems shall be fully regenerative and safely regulate zero speed. Control of the load limited main hoist speed shall be regulated by internal drive load feedback, (load cells may be used as part of a redundant system)....

The circuit shall sense any difference between reference speed and actual speed and in such a case initiate a controlled shutdown of the drive....

The new control system shall interface with the existing motors tachometer feedback (speed feedback)....

The operator shall be able to increase or decrease the speed of the drives and alters their direction by moving the master switches in the appropriate manner.

The acceleration and deceleration of the drives shall be under the control of the operator, except that if the operator moves the master switch rapidly, acceleration and deceleration shall be limited automatically, to predetermined adjustable values which meet or exceed the existing performance characteristics....When the operator moves the master switch toward the "off" position, the load shall be slowed electrically. The speed of all motions shall be infinitely variable from full speed through zero to full speed in the opposite direction with no dead band.

The new drives shall at a minimum duplicate the functionality of the existing drives and be capable of simultaneous hoist & trolley or gantry & trolley motion. Two (2) independent drives are presently utilized: Hoist/Gantry (First Come First Served) and Trolley/Boom (First Come First Served)....

The control system shall incorporate a state-of-the-art programmable logic controller using ladder logic for general crane control, interlocking, and sequencing except for emergency stops and end of travel circuits. Emergency stops and emergency end of travel stops for all motions in all directions shall be hard wired external to the controller.

Analysis: Contrary to plaintiff's contention that Liebherr was responsible for installing a "state-of-the-art" control system, this section clearly makes the responsibility for providing a "state-of-the-art" system with the control system supplier, an entity selected by NYCT and not Liebherr. Operation of the system was to be in the hands of the operator and not some computer or other electronic control system. The only limitation on the operator's action is that if the operator accelerates or decelerates too rapidly there would be a predetermined slowdown.

Plaintiff concludes that the incident happened because the pre-determined slowdown system failed to operate properly. Defendant contends that the system operated properly and that the operator either controlled the lowering of the container within the required speeds or over-rode the pre-determined slowdown speeds. Plaintiff's expert, as noted below, stated in his testimony that the operator had ultimate control of the lowering speed and could override the pre-determined slowdown device.

Section 6.3 ENHANCED DIAGNOSTIC MANAGEMENT SYSTEM

An enhanced control system diagnostic, monitoring and management system (hereafter called CMS), shall be provided. In addition to advanced control system faults and diagnostics, the system shall provide crane drive and production monitoring, including container weights, fault and event logging, preventative maintenance data logging, alarms and information to aid in determining causes of faults.

Section 6.4 ENHANCED REMOTE DIAGNOSTIC MANAGEMENT SYSTEM

An enhanced remote control system diagnostic, monitoring and management system, (hereafter called RCMS), shall be provided in addition to CMS....Contractor may utilize existing network and install software of existing computer(s) if the systems are compatible.

Section 6.6 CONTROL SYSTEM START-UP

Proper set up and adjustment of the control system is essential to achievement of full crane performance and efficiency, at least one field

engineer from the control system supplier shall be on site, at no additional cost to NYCT, during start-up testing and acceptance testing.

Analysis: This too supports the conclusion that the control system supplier is responsible for the proper functioning of the control systems as their engineer is to be present during start-up and acceptance testing and not Liebherr.

Section 6.9 ELECTRICAL COMPONENTS

The Contractor shall provide all labor, materials, wiring and conduit for installation of new rotary cam limit switches, hardwired limit switches/proximity sensors and encoders for the main hoist and trolley drive systems. The control system supplier shall be responsible for selection of the required electrical components to interface with the new control system existing equipment.

Analysis: This paragraph supports the conclusion that the control system supplier is responsible for the proper interface of the electrical components and Liebherr is only responsible for the installation of the control system.

SECTION 11-QUALITY ASSURANCE

Section 11.2 GENERAL

NYCT reserves the right to retain independent inspection laboratories and /or engineers to insure strict compliance with the terms of the Contract Documents as well as local regulations required by Governmental laws. NYCT's inspectors shall have free access to the mills or shops of the Contractor and his subcontractors or vendors, and shall be supplied with all drawings and specifications required to carry out the inspections....

No inspector is authorized to change any provision of the Specifications without written authorization of NYCT or NYCT's Engineer, nor shall the inspection and review by the NYCT's Representative, or lack of inspection and review, relieve the Contractor from any requirements of the Contract....

Analysis: NYCT has the right to ensure that Liebherr has complied with the terms of the contract and the specifications and to have its own engineers or third parties inspect Liebherr's work.

Section 11.5 SHOP ERECTION INSPECTION AND SHOP TESTS

Section 11.5.3 Electrical

During final acceptance testing, main hoist, trolley, boom hoist and gantry performance shall be verified to meet or exceed the existing conditions. The method and procedure for performing the testing shall be submitted to NYCT's Engineer for review.

Analysis: NYCT's engineer had to approve any testing of the refurbished cranes to ensure Liebherr had complied with the contract.

11.6 ACCEPTANCE/PERFORMANCE TESTS

Prior to testing, all systems must be complete and functional. The Contractor shall prepare formal test procedures for all required tests and submit them to NYCT's Engineer for review thirty (30) days prior to scheduled tests. These tests will prove the compliance of this Crane to the Specifications.

Analysis: All testing procedures to establish compliance with the specifications had to be approved by NYCT's engineer.

11.6.1 Safety Test

The Contractor shall operate the Crane(s) without load in each mode at full rated speeds to establish integrity of all limit switches, including over travel switches, back up limit switches, interlock lights, and controls to the satisfaction of NYCT's Engineer.

Analysis: The integrity of the limit switches and other safety devices had to be approved by NYCT's engineer.

11.6.2 Speed and Power Test

The Contractor shall complete the following operations and record the measurements..., and the operational speeds of the functions during these operations.

2. ...Slowdown and end limit switches are to be checked by running each motion at full speed into its extremes of travel, depending solely on the limit switches to slow and stop that particular motion. Operation hoist and trolley over travel switched shall be verified at full speed.

3. In accordance with US OSHA requirements, perform certification load tests as required for 40LT capacity crane, perform any other proof or overload tests as required by applicable local codes and regulations for 40LT capacity.

Analysis: The operation of the cranes including the slowdown and end limit switches had to meet OSHA requirements, and other tests required by local regulations. The plaintiff has not established that the system designed and installed by Liebherr failed any test or failed to meet and federal, state or local code.

Section 11.8 FINAL INSPECTION AND PUNCH LIST

Upon successful completion of the operational tests, an inspection shall be conducted by NYCT's Engineer. This inspection shall identify remaining

work, missing parts and defects. The Contractor's Inspector is to accompany NYCT's Engineer during this inspection.

A punch list will be compiled by NYCT's Engineer indicating items found during the inspection. This list will be distributed both to NYCT and the Contractor. Final Acceptance will not be considered until all items noted in the punch list have been supplied or corrected to NYCT's satisfaction. The Contractor's Inspector shall verify correction of all punch list items before requesting NYCT's Engineer for a subsequent inspection.

Analysis: NYCT has the final say in accepting the work and ensuring that Liebherr performed the contract. There is no showing by plaintiff that Liebherr was required to replace or modify any of its installations because Liebherr had failed to perform the work as contracted or that it was not up to code.

SECTION 12-DRAWING AND TECHNICAL DATA, SUBMITTAL LIST, MINIMUM REQUIREMENTS & SCHEDULED SUBMITTAL DATES

The Contractor shall submit "ALL" design drawings, calculations, technical data, purchased component information, shop drawings, etc. pertaining to the Cranes for review.

The following list of drawings and technical data establishes the "minimum" requirements for submittal of information to all NYCT to perform a thorough technical review of the Cranes which will be supplied:...

1. Calculations
    5. Electrical Calculations
        4. Safety devices and limit switch(s), proximity(s), etc. operational and interlock description.

5. Detailed Electrical Drawings
    5. Limit Switch Arrangement(s)

Analysis: NYCT was to conduct a thorough technical review of the components to be used in the cranes.

E. Incident Report

This exhibit is a copy of the Incident Report Form maintained in the regular course of business by NYCT. The report is dated August 9, 2007, the date plaintiff alleges the incident occurred. The document is completed by Robert Nixon, Director of Safety. It is not signed by the plaintiff. It recites in the section for the description of the accident that:

Working on Crane #4 Mr. Caccese claims to have been knocked around in the cab of his tractor from the crane operator. "Lou Spitilari Sr." dropping

the boxes too hard. complains of pain from the left side of his face, left shoulder, left rib cage, left hip, pressure on back of neck and head. It also lists witnesses to the event.

Analysis: Although an incident report was filed, there are no statements from Caccese or any of the witnesses confirming the occurrence. There is no mention of who was the spotter or checker on the ground at the time to guide the container lowering. There is no evidence that an investigation was conducted by NYCT to confirm the incident and take any remedial steps to prevent a similar incident from occurring nor was there any indication that any mechanical failure of the system had to be addressed.

F. Repair Order History

This exhibit is maintained by NYCT as part of its repair records. It shows no repair orders to the crane in question during the period January 1, 2007 through December 31, 2007 in regard to the equipment plaintiff claims malfunctioned causing the incident on August 9, 2007.

In fact, OSHA regulations set forth what safety devices are required for crane operations [29 CFR §1926.1415]. The section provides: If a device stops working properly during operations, the operator must safely stop operations. If any devices listed in this section are not in proper working order, the equipment must be taken out of service and operations must not resume until the device is again working properly.

See also 29 CFR §1926.1416 "Operational aids" for additional safety regulations and procedures.

Analysis: There is no indication that NYCT ever complied with the OSHA regulations concerning this incident, or for that matter for any other prior incidents which Spitaleri said occurred. This leads to two possible conclusions either the incidents did not occur and the system operated properly or NYCT and its employee failed to comply with regulations.

G. Operation Manual Issued by Liebherr.

As part of its contract with NYCT Liebherr agreed to prepare a operation manual in regard to the use and safety of the refurbished Paceco cranes. It provides:

The following general safety rules for operating the crane are drawn up in the event of no local regulations being in force. If local regulations are in force concerning crane operation, then there should followed carefully and adhered to....

It is vital that the crane is handled and operated gently and without aggression. In this way, it will be seen that the loading and unloading operation can

be completed faster and without fuss and can reduce wear on the crane and its parts and will be far less tiring on the driver, other crane operators and maintenance personnel.

Section 2.2 RESPONSIBILITIES OF CRANE OPERATOR

...The crane operator must be satisfied with the functioning of all brakes, limit switches, safety devices, etc....

Section 2.3 HANDLING OF DEFECTS/FAULTS

The crane operator must keep a record of any defects noticed in a logbook provided for this purpose. He must also report any defects to the supervisor of foreman without delay, as well as advise the relief operator when changing shifts....

Analysis: Liebherr provided NYCT with an operator's manual with safety measures set forth. It required the crane operator to record any defects in a log book and report any defects to the supervisor. Plaintiff has not produced any evidence that such a report was made of the incident or any prior incidents.

Section 2.18 COMMUNICATION WITH GROUND PERSONNEL

If the crane operator cannot see the loading and unloading parts from his control platform, signals must be arranged and given....

Section 2.19 SAFETY DEVICES

The crane operator should ensure that all safety devices are operating properly. These should be tested frequently. He should also ensure that all structural protection systems to the mechanical and electric equipment are properly fitted,...

Analysis: The plaintiff has not established that the crane operator failed to ensure that the safety devices were operating properly. There is no evidence that the safety devices did not operate properly at the time of the incident.

Section 2.20 MOTION LIMIT SWITCHES

Pre and Final stop limit switches are provided to protect crane and driver in the event of an error in the driver's judgment. These switch systems should not be considered as normal operational switches and drivers must operate with due caution when approaching the limit switch zone. This particularly applies to Hoist, Trolley, and Travel drives.

NOTE: (i) All motion limit switch systems must be tested for correct operation prior to commencement of each driver's shift without load on lifting equipment.

(ii) The crane must not be operated should any of the limit switch systems be defective without prior approval of the terminal's safety engineers.

Analysis: The manual requires the driver to control operations and should not consider limit switches as the normal way of slow or stopping the container. The operator is to test the limit switch systems before the start of his shift. The plaintiff has not established that the operator either failed to check the system or that if he did check the system, it was not operating properly.

SECTION 3- ELECTRICAL/ELECTRONIC FEATURES
Section 3.5 Always adhere to correct operating procedures. THE CRANE DRIVER IS RESPONSIBLE FOR THE OPERATION OF THE CRANE.

SECTION 5. OPERATING THE CRANE DRIVE UNITS
SECTION 5.1 HOIST UNIT OPERATION
Section 5.1.3 Limit Switches

Limit Switches are incorporated in the hoist control system, which provide for the proper functioning of the hoist "up" and "down" motions....

-Hoist Down Prelimitation 25% (Overland)
Slow the hoist down motion to 50% speed when lowering overland. Interlocked with Trolley On Boom limit switch.

-Hoist Down Stop
This stops the hoist down motion at the maximum hoist down position.

NOTE IN THE EVENT OF EQUIPMENT MALFUNCTION, CRANE OPERATOR SHOULD IMMEDIATELY BE STOPPED, THE EXACT SEQUENCE OF FAILURE NOTED AND MAINTENANCE PERSONNEL NOTIFIED. THE REASON FOR MALFUNCTION OR FAILURE SHOULD BE DETERMINED AND CORRECTED IMMEDIATELY.

SECTION 5.2 TROLLEY DRIVE SYSTEM OPERATION
Section 5.2.1 Operation

The trolley system is controlled by means of a joystick on the left-hand control console....

Section 5.2.2 Limit Switches

Limit switches are incorporated in the trolley control system which provide for the proper function of the trolley "forward" and "reverse" motions.

-Forward/Reverse Emergency Stop
Provides for an emergency stop trolley forward position at the end of the derrick boom (seaside) and trolley reverse emergency stop position of at the end of the main beam (landside). In the event of this limit switch being activated, maintenance personnel should be notified to reset the electrical control circuit, and the trolley should be carefully moved away from the emergency stop position.

-Trolley on Boom
Interlocked with Hoist Down (50% speed overland). Limit the hoist down motion to 50% speed when lowering overland.

NOTE: IN THE EVENT OF EQUIPMENT MALFUNCTION CRANE OPERATION SHOULD IMMEDIATELY BE STOPPED, THE EXACT SEQUENCE OF FAILURE NOTES AND MAINTENANCE PERSONNEL NOTIFIED. THE REASON FOR MALFUNCTION OR FAILURE SHOULD BE DETEREMINED AND CORRECTED IMMEDIATELY.

SECTION 5.3 CRANE TRAVEL DRIVE SYSTEM OPERATION
Section 5.3.1 Operation
The travel system is controlled by means of a joystick on the right-hand control console....

Section 5.3.2 Limit Switches
Limit switches are incorporated in the travel control system which provide for the safe functioning of the travel "left" and "right" motions.

This section also closes with the same capitalized, bold faced warning set out above of what to do if there is a malfunction.

SECTION 5.4 BOOM HOIST/DRIVE SYSTEM OPERATIONS
Section 5.4.7 Limit Switches
Limit switches are incorporated into the boom hoist control system which provides for the proper functioning of the boom "up" and "down" motions.

-Boom Down/ Slowdown
Slows the boom down motion at the maximum down position, i.e. when boom is in the horizontal position with holding arms bearing full load of boom.

-Boon Up Emergency Stop
Mechanical limit switch which provides for emergency-stop boom up position. In the event of this limit switch being activated, maintenance personnel should be notified to reset the electrical control circuit and the boom should be carefully lowered. The exact reason for activation of the emergency stop should immediately be determined and rectified.

Analysis: The operations manual spells out the functions of the limit switches and how the system is controlled. It warns in bold type that if there is a malfunction of the system, the system is to be shut down, the sequence failure noted, mechanics called and the problem corrected. The system should not be reactivated until the problem is detected and corrected. Plaintiff has failed to prove that there was either a failure of the system which was reported and corrected or that if the system failed, NYCT ignored the procedures established by Liebherr to ensure safety.

H. Siemens Simatic S5 and TI 505 Are Being Phased Out

This is a notice from Siemens from the autumn of 2002 to its customers that the Simatic S5 would be phased. This is the device used in the controller system which plaintiff contends needed to be backed-up by a redundant system. The reason cited by Siemens was that it "has become increasingly difficult to maintain the technical foundation at competitive prices." Production of the product would continue until between 2013 and 2015 depending on the particular item. However, Siemens promised to keep the product as a "spare part" and made available as "either refurbished or repaired with exchange."

Analysis: Plaintiff relies on this memoranda from Siemens in support of its position that Liebherr did not deliver a "state-of-the-art" system because Siemens was phasing out this controller system. However, as noted above selection of the controller system was left to NYCT and not Liebherr. Liebherr was just going to install it and integrate it into the refurbished crane. There is no showing that the system was defective or had a history of failure. It apparently was the system NYCT had used on the Paceco cranes. NYCT and its engineers and consultants did not seek to upgrade the system. They made a business decision as to the system they wanted. The fact that plaintiff posits that better more modern systems are available does not make the existing Siemens system inoperable or unsafe.

I. Crane Construction and Erection Agreement

This exhibit is a "blank" copy of the contract eventually entered into between NYCT and Liebherr. It has the date June 23, 2005 preprinted on the bottom of each page.

Analysis: What makes it relevant is that the document has been prepared by NYCT as NYCT is the only entity mentioned in it with the name of the Contractor being left blank. This leads to the conclusion that the final copy of the Agreement entered into between NYCT and Liebherr was prepared by NYCT and contains the terms and conditions that NYCT wanted and NYCT felt were necessary to refurbish the cranes.

J. OSHA Form

This exhibit is a standard OSHA form to certify that the cranes were tested. The cranes passed the necessary tests and were certified as OSHA compliant as of December 28, 2006 in that "all function testing safety devices and over load testing found satisfactory."

Analysis: Plaintiff has not established that the system designed by Liebherr violated either OSHA or any other safety regulation. In fact, the design and functioning of the system was approved.

K. Tests Conducted by NYCT and Liebherr

This exhibit recites tests of the refurbished cranes conducted by NYCT and Liebherr on December 17&18, 2006 and May 16, 2007. The cranes passed the tests including all safety inspections.

L. Limit Switch Specifications

The exact source of this exhibit is not disclosed. It appears to be from a manual describing the use and maintenance of the limit switches selected by Liebherr for use in the project. It is difficult to conclude the Liebherr actually generated this document as it appears to be from a manual with preprinted language but has Liebherr added as *LIEBHERR* throughout the body.

SECTION 4.1-LIMIT SWITCHES

Section 4.1.1 General

Limit switches are used as part of various safety systems which are installed on the crane to guarantee safe and reliable operation. In most cases, the limit switch(es) and its (their) activating mechanism(s) (e.g. strikers, magnets) must be considered to be the most important component of such safety systems....*LIEBHERR* exercises the utmost care, and it is therefore, imperative that any operational and/or replacement work carried out is in accordance with the crane specifications as the limit switch systems must be maintained at the optimum settings selected at crane commission date.

LIMIT SWITCH SYSTEMS MUST NOT BE USED TO CONTROL THE CRANE AND/OR LOAD PATH MOVEMENTS, AND THEY ARE NOT CONSIDERED TO BE "OPERATIONAL SYSTEMS". PRIOR TO THE APPLICATION OF THESE SWITCH SYSTEMS, THE CRANE DRIVER MUST PROPERLY CONTROL CRANE, TROLLEY AND LOAD.

ENSURE THAT ALL CRANE DRIVERS ARE FULLY AWARE OF THIS.

Section 4.1.2.1 Inspection/Checks/Re-Testing

If crane insurance, local safety standards and regulations do not request a more frequent and/or more detailed control in this respect, *LIEBHERR CONTAINER CRANES LTD.*, recommends the following minimum check and test procedure on the limit switch system installed:-

a. One month after crane commissioning or after 250 crane working hours, whichever comes first, all limit switches with their activating mechanisms (e.g. strikers, magnets) must be carefully visually inspected and then retested several times under varying conditions to ensure that all limit switch systems function properly as at date of crane commissioning. In the event that defects or malfunctions are found, *LIEBHERR* must be notified immediately and instructions obtained on the necessary action to be taken.

b. At regular-three month intervals the inspections and tests as described under Point A above should be carried out.

c. It is imperative that all above tests are recorded in the crane book/crane owner's file. Any abnormalities found and recorded must be passed on to *LIEBHERR CONTAINER CRANES LTD.* for comment.

Analysis: Liebherr is informing NYCT of the safety and inspection schedule recommended for the limit switches. Plaintiff has not established that such recommendations violate industry standard. Plaintiff has not established that NYCT conducted these tests as instructed and they revealed faults in the system or that NYCT ignored Liebherr's instructions and did not conduct inspections. Also proper control of the system is in the hands of the operator.

Summary: The plain reading of the above documents questions the essential premise of plaintiff's case; that is, that Liebherr is the responsible party. Actual responsibility rests with NYCT and its consultants.

Part II: Trial Testimony

At the trial plaintiff presented testimony in the following manner:

1. Reading portions of the examination before trial of Stuart Graham, service manager of Liebherr who was more than one hundred miles from the jurisdiction.

2. Reading portions of the examination before trial of Sean Reen, electrical supervisor at the site for Liebherr who was more than one hundred miles from the jurisdiction.

3. Reading portions of the examination before trial of Cynthia Brooks, co-worker of plaintiff who was operating a hustler two hustlers behind plaintiffs, who is now deceased.

4. Live testimony of Matthew Hartzell, plaintiff's marine engineer expert.

5. Live testimony of Louis Spitilari, Sr., the crane operator at the time of the alleged incident.

6. Live testimony of plaintiff, Vincent Caccese.

7. Reading portions of the examination before trial of Jerry Clifford, chief electrical engineer for Liebherr who was more than one hundred miles from the jurisdiction. It should be noted that Justice Maltese had ordered two depositions for Clifford to take place on December 15 and 16, 2012. The first was to be considered an examination before trial conducted pursuant to CPLR discovery rules. The second, was to be considered as trial testimony as it was anticipated at that time that Clifford would not be available for trial.

A. Hartzell Testimony.

In order to prevail on any of plaintiff's causes of action, expert testimony was needed. Plaintiff called Matthew Hartzell as its expert witness to offer his opinion as to whether the safety components of the electrical system designed and installed by Liebherr for NYCT were "state-of-the-art" and had sufficient redundancy so as to have prevented the happening of the incident which is the subject of this litigation. Hartzell concluded that Liebherr's work was not "state-of-the-art" nor

did it have sufficient redundancy so as to have prevented the incident from occurring.

Hartzell indicated that he had reviewed all of the depositions of all the persons listed above as well as the documents entered into evidence.

Hartzell testified that he had a degree in marine engineering from the United States Merchant Marine Academy at King's Point, New York; that he had worked in the containership industry for many years; and had refurbished cranes including their electrical control and mechanical systems. He stated he was familiar with the operation of the programmable logic controller (PLC) and the crane monitoring system (CMS) utilized on the Paceco cranes at NYCT.

Hartzell testified that he had worked in the past with Liftech who was the structural engineering consultant on the project. Hartzell stated that he believed that Liftech's role was limited to providing "the drawings for the legs."

Analysis: In fact, a review of the Liftech agreement which is summarized in Part I above, disclosed Liftech had a far more extensive role in the design of the project then indicated by Hartzell.

Hartzell stated that although familiar with ship-to-shore cranes such as those used at NYCT he had never worked on a Liebherr crane and that the first time he was on a Liebherr crane was immediately prior to testifying.

Hartzell testified that he was familiar with the Siemens control system Liebherr installed on the Paceco cranes. He opined that the system being installed as part of the refurbishment is the same as that used by Paceco except that it would have been programmed by Liebherr. He identified the system as "the S5 specifically the 945 PLC."

Analysis: The Specifications referenced above identify the "PLC" as a "Siemens S5-115U PLC unit." Hartzell did not explain whether these are the same unit or that the unit was changed by Liebherr between planning stage and final installation. He also did not point out that NYCT was responsible for selecting the control system and not Liebherr.

He further went on to state that the S5 system was in "legacy status" as of the date of the contract in 2005 having been replaced by Siemens with the S7 system in the late 1990's. He stated that the "S5 interface was DOS based nearly command line interface that had lesser capabilities in terms of human interfacing diagnostics than the S7 system did." He did not explain what those "lesser" capabilities were and how that adversely affected the operation of the over land slowdown system.

Hartzell criticized the decision of Liebherr and NYCT not to replace the S5 system with the S7 system because "as of 2015 all hardware was going to be no longer provided by Siemens."

Analysis: That statement is not completely accurate. Siemens indicated in the letter it sent to customers referenced in Part I, that the system would be available as either refurbished or repaired with exchange. Hartzell did not opine that replacing the analog system on the Paceco cranes with a digital system was feasible. His testimony is that the system was available, in use and being used to replace analog systems in other container terminals. He did not state that the Specifications of the existing Paceco cranes presented by NYCT to Liebherr and other bidders for the refurbishment were compatible with the new S7 or digital systems and what the cost for conversion would be.

Hartzell described how the overland slow down mechanism is designed to work. He noted:

> The early generation cranes and current generation cranes operate with the same principle that the position of the hoist drum is monitored using either cam limit switches or encoders and at the predetermined value whether it's mechanically set in the cam or digitally set up in the control system as a measured value, it will limit the speed from the full allowable reference to a lesser determined reference....

Because there is no evidence that the limit switch failed, which Hartzell agreed was the case, Hartzell was asked a hypothetical question as to how the slowdown limit switch would not operate properly. He responded:

> If the over land slowdown limit switch did not change state, the cranes logic would not change and thus the permissive speed would not change. So if he had above the level of activation, he had full speed. He went through that zone. If the state of the limit switch didn't change, the PLC then didn't see it change and state of the IO, it would continue to allow him to have the same speed that he had above.
>
> Court: Can the operator stop it himself?
>
> Hartzell: At all times.

Hartzell identified the over land slowdown used on the Paceco cranes as one using "the combination of signals was the trolley on beam or trolley on support girder magnetic switch and the cam switch from the hoist overland slowdown." He further agreed that the system Liebherr put in was the "exact same system" that previously existed on the Paceco cranes. Hartzell acknowledged that the magnets never move during operations but the limit switches are mounted on top of the operator's cabin and move when the trolley moves.

Plaintiff alleges that Liebherr did not deliver "state-of -the-art" technology in regard to the limit switches as it represented it would do in the contract. Hartzell was asked to opine on whether the system installed by Liebherr as part of the refurbishment was "state-of-the-art" in 2005. Hartzell defined the term as "a configuration in this application, in this instance, a configuration that is using contemporary standards or past practices that have become the most common place practice in the industry."

Analysis: Hartzell misinterpreted the contract. The control system supplier was to provide the "state-of-the-art" technology and not Liebherr. He had to agree that the system installed was the system which NYCT wanted in the contract.

Hartzell went on to be asked what he meant by "redundancy." He said "a redundancy has a purpose of increasing reliability or probability of safety." He further said, "redundancy is a secondary system or component that will contribute to the operation of the piece of equipment that will allow it to operate more reliably and more safely with a higher probability of failure."

Hartzell continued: "Starting in mid-eighties, my experience is that the primary use or primary portion monitoring switched from rotary cam limit switches to encoders and at that point the rotary cam limit switches became a redundancy to the use of encoders." He stated that by 2005 only a tiny minority of ports in the United States were still relying upon overland slow down on a gantry crane without some form of redundancy.

Analysis: Hartzell only spoke in generalities about the use of redundancy systems at container terminals in the United States. He offered no specifics or statistics to support his allegations. He offered similar unspecific generalities as to his experiences with failures with of the magnet based system at container terminals and did not provide any information as to why they failed and if those systems were the same as the NYCT system or only similar.

Hartzell was asked whether Liebherr had agreed to provide a "state-of-the-art" electrical control system on the refurbished cranes. He answered that "the contract calls for a state of the art solution."

Analysis: Hartzell did not say that Liebherr was supplying the "state-of-the-art" electrical control system because as noted in Part I above, the contract requires the "control system supplier" to provide "the latest state-of-the-art static DC variable voltage, stepless, regulated, reversing and regenerative over the entire range of speeds as manufactured by an NYCT control system supplier." The clear meaning of this language is that Liebherr would request the described system from a control system provider selected by NYCT. Hartzell never testified that the system Liebherr designed and installed did not meet the criteria called for by NYCT and the supplier, Siemens.

Hartzell testified as to how encoders are designed to operate and that there are two general classifications; incremental and absolute. He stated that he has never personally observed a loss of power in an incremental encoder on a system involving overland slowdown. He went on to state that incremental encoders were not in use at any time for over land slowdown. Hartzell asserted that absolute encoders were in use and it retains its position if power is lost. He believed that the use of absolute encoders would have prevented the incident from occurring.

When asked about the extent of use of absolute encoders in the United States he responded about his experiences of having seen them in use in Australia, China and Kuwait. It is unclear from his answer as to whether these were in addition to the those he observed in the United States or whether those are the only ones with which he had experience.

Hartzell was asked about statements made by Liebherr employees, Reen and Clifford in regard to the disadvantages of using encoders for the implementation of overland slow down. He stated that their answers were accurate for incremental encoders but not for absolute encoders.

Hartzell was asked to comment on the terms of the contract setting forth the specifications for the trolley on boom limit switch. He noted that the hardware for the switch is defined but the switch itself with that function is not defined. He also commented that the contract refers to encoders in general and does not differentiate between absolute and incremental encoders.

Hartzell was asked his expert opinion as to whether Liebherr provided a "state-of-the-art" electronic control system for the refurbishment project. He concluded they did not because they did not use encoders for position monitoring and they used a PLC series of which they had prior knowledge was going to legacy status. He concluded that Liebherr was relying on a system that used magnets to achieve the over land slowdown. Hartzell acknowledged that Liebherr used the existing system because Liebherr found it highly reliable and did not find failures in its use. Also that on this particular project they did not change the design and maintained the same system that was there.

Analysis: Hartzell failed to mention that the specifications and contract were prepared by NYCT and that NYCT had engineers and consultants at all stages of the project checking on Liebherr's work and that there is no indication that any of these entities thought replacement of the current over land slowdown system was warranted.

Hartzell admitted it was common on wheel driven trolley systems to have magnetic switches as a portion of the trolley position monitor in contemporary "state-of-the-art" cranes. But claimed that in all the similar magnetic systems he had observed, there was a redundancy system. The system was allegedly provided

by Schmersal but the diagram submitted into evidence was generated on July 18, 2013 well after the NYCT project was complete. The parties agreed that this is the system Liebherr installed.

Hartzell went through a detailed explanation as to how the system was designed to work and opined that the magnets as set in their tracks could move laterally so as to be less than the minimum tolerance for the safe operation of the Schmersal system. Hartzell attempted to calculate numerically why the movement of the magnets in the rail could be below the minimum tolerance. Hartzell argued that an encoder would continue to read the values in the event the sensor failed to pick up its target. The encoder operates off the revolutions per minute while the sensors work off the magnets. He stated that encoders were the industry standard in 2007 for trolley positioning and magnetic switches were used for redundancy.

Analysis: Hartzell provided no statistics to support his claim that an encoder system was the industry standard in 2007 when the refurbishment was done. He did not state what the industry standard was in 1984 when the Paceco cranes were installed. Nor did he have any documentation to support the contention that the industry standard for crane refurbishment in 2005 when the contract was entered into was to use absolute encoders rather than the existing limit switch either in place of or to supplement the older system.

Hartzell reached his conclusion by reviewing specifications for the original Paceco cranes designed in 1984 and the Liebherr design from 2005. There is no showing that NYCT in its bid documents and specifications sought replacement for this system in the Liebherr contract. Liebherr provided what NYCT wanted: a refurbishment of the crane using as much of the current existing equipment as possible.

Hartzell also explained how a magnet based system can lose magnetism over the years making it more likely to malfunction. He did not suggest that this is what occurred in August 2007 and in fact referred to the magnets on the crane as "new magnets."

Analysis: Hartzell was required to base a great deal of his testimony on the assumption that there was a malfunction in the Liebherr system as there is no objective evidence that the system failed or that if it did fail what caused the failure. This reference to the potential problems with magnets therefore is nothing more than speculation.

Hartzell also stated on more than one occasion that there is "no system that is one hundred percent reliable."

Hartzell was asked to opine on the issue of whether the "crane's electrical was built by Liebherr in accordance with the state of the art." He concluded:

I believe it was not....To make it state of the art the required thing for me would of been adding encoders for trolley and hoist boom and gantry....If encoders had been the primary or even secondary motion monitoring systems then if there had been a case of random sensor failure, the system could have been programmed to be monitoring the expectation of a sensor change, state of change and then could have in absence of sensor state of change send a fault which could have put the crane in a slow down and sent an alarm.

Analysis: This is an explanation as to why, in theory, encoders increase safety in the event of random sensor failure and might have been effective in slowing down the over land lowering of a container. But the response was in regard to a hypothetical question posed to the expert because there is no objective evidence that there was a sensor failure. Hartzell admitted that there was no objective of evidence of a failure of the system.

Additional time was spent discussing cranes built by Liebherr for Maher Terminals in New Jersey in 2013. Plaintiff sought to contradict defendant's witnesses' statements that Liebherr does not use encoders by establishing that they did in fact install encoders at Maher Terminals. Hartzell was asked to comment on this. Although the court permitted this testimony, the fact is that what Maher Terminal contracted for in 2013 was for new cranes and is not relevant as to what NYCT contracted for in 2005 from Liebherr for refurbished cranes. The technology in that period of time could and should have changed. Also, the needs of the client might be different. Plaintiff seems to think that the fact that the Liebherr employees testified in December 2012 that they did not contract to install encoders as a matter of practice when they did in fact install encoders for cranes delivered in 2013 shows that Liebherr knew that the use of encoders were a better system.

Analysis: This information only confirms that different clients have different needs. Based on the documents provided and referred to in Part I, it is apparent that the clients solicit bids from various design firms and gives the bidders required specifications and contract terms, so the fact that Liebherr designed a different system for Maher terminals several years after the NYCT contracted with Liebherr is irrelevant to whether the system at NYCT failed or if encoders would have prevented the alleged incident from occurring. Hartzell never discussed the relative cost of either system or the respective budget of NYCT or Maher.

Hartzell was then questioned about "human factors" in regard to the operation of container cranes. Defendant had objected to his testifying in this regard because Hartzell's only training in the area was one undergraduate course. The court permitted the testimony as the extent of his training would go to the weight the court would give to it, rather than his ability to testify on the subject. His testimony is this regard about the attention a crane operator pays to the loading and unloading for the most part is common sense about human behavior. Hartzell did

remark that if the operator is paying attention and either observes that the container is coming down too fast or did not hear or feel the change in speeds, the operator has the ability to slow the lowering by pulling on the "stick" or hitting the "E-stop."

Hartzell promoted the use of encoders as a redundancy system because it would automatically act if the operator failed to adequately assess the situation or respond in a proper manner to slowdown a container being lowered.

On cross-examination Hartzell conceded that there is no evidence that any of the components of the Liebherr designed system failed on the date in question. He admitted that the operator of the crane could have stopped the lowering of the container at any time prior to impact with the redbird. He also stated that he considers the trolley on boom limit switch used by Liebherr on the refurbished crane to be highly reliable.

Hartzell opined that the purpose of the redundancy is to increase the detection of any fault if one occurs. He admitted that there is no evidence that any failure of the Liebherr system occurred and that the sole basis for assuming a failure of the limit switch is the testimony from Brooks and Caccese. Hartzell also conceded that the Maher Terminal project went from a rope driven trolley to a wheel driven trolley which may have necessitated the use of encoders.

Analysis: What Liebherr provided for new cranes at Maher Terminals several years after entering into the NYCT contract is irrelevant. More importantly, although Hartzell opined as to the technical feasibility of the absolute encoder system in 2005 in that it was in use and available when the contract was made between Liebherr and NYCT, he offered no testimony at all as to the economic feasibility or cost of refurbishing the Paceco system with absolute encoders or if in fact he had any specific knowledge or examples of Paceco cranes being refurbished with absolute encoders. To be acceptable expert testimony, plaintiff needs to establish both the technical and economic feasibility of the proposed absolute encoder system. The expert failed to do so.

B. Brooks Testimony.

In February 2012, the oral deposition of Cynthia Brooks was taken at her house. Ms. Brooks passed away between the date of the deposition and the start of the trial. The parties consented to the use of her deposition at trial.

Plaintiff offered Brooks' testimony as she was the hustler driver two vehicles behind Caccese at the time of the occurrence. Much of the information concerning how the incident happened including the speed at which the container was lowered by Spitaleri and the position of the container when it made contact with Caccese's redbird comes from Brooks. Her observations were used by Hartzell as a basis of his expert opinion that there was a failure of the system.

She testified that she observed that the container came down fast and almost turned Caccese's vehicle over. She observed the container shifted as it was lowered and that it was skewered to the front and right of the redbird when it came in contact with Caccese's redbird.

Brooks testified that she had observed similar occurrences before and at those times the work stopped until any problem was addressed. On this occasion she believed that there was a fifteen minute delay before they started working again. Brooks stated that part of that time was used to properly set the container on Caccese's redbird and for her to proceed to receive her container.

Brooks testified: "He (referring to Spitaleri) never stopped. I mean we never really--it was never really a shutdown, it was just a slow down because he had to get the container onto the redbird."

Brooks responded to a question about whether any maintenance vehicles arrived during that fifteen minutes by saying that she did not observe any.

Brooks also said the Spitaleri had a reputation for lowering the containers fast and that after the incident he lowered them a little slower but still in a manner that she considered fast.

Analysis: The entire basis of plaintiff's assertion that the slowdown system failed to operate is Brooks' assertion that the container came down fast and did not appear to slowdown. Her observation as to the speed of the container was used by Hartzell as the basis for his conclusion that their was system failure. In fact, Brooks' entire testimony discloses that the crane operator, Spitaleri, had a reputation for lowering containers fast and that even after the incident he continued to do so, but not at the same rate as the container which made contact with Caccese's vehicle.

Although there are other witnesses on the accident report, there are no statements from any of them and no depositions were taken. Neither, Brooks, Caccese or any other witness indicated who was the spotter or checker, the person who is supposed to assist the crane operator in guiding the container onto the redbird.

Brooks' was unaware of a shutdown taking place after the incident which would be the procedure to be followed in the event there was a mechanical problem with the crane operation. This is consistent with the documentary evidence and with Spitaleri's testimony. The failure to have a shutdown means either there was no malfunction of the system or if there was a malfunction NYCT and its employees completely ignored the safety procedures Liebherr mandated it the crane operators manual and required by OSHA regulations.

C. Spitaleri's Testimony.

Louis Spitaleri, Sr. was subpoenaed to testify on plaintiff's case. He was the operator of the crane at the time of the incident. He stated he was trained on Liebherr crane's after they were refurbished but not by Liebherr employee.

He testified that the operator had control of the slowdown although both before and after the refurbishing there was an automatic slowdown device. He stated that there were times that the automatic slowdown did not work. He did not remember how many times and he did not keep any record of any such failure.

Spitaleri said in the past if there was a system failure, he would stop operations and notify a mechanic. A mechanic would appear check out the system, ensure it was working properly and then observe the crane in operation. There is no requirement that he fill out a report if there is a stoppage.

Spitaleri testified that he had no recollection of the incident in which Caccese alleges he was injured. He also noted that he can see the crane slowing down and there is a different sound during the slowdown phase.

Analysis: Spitaleri's testimony is consistent with Brooks' in that he has no recollection of being a shutdown of the system on the date of the incident which would verify a mechanical failure. He also has no recollection of the incident at all. It is also consistent with documentary evidence of NYCT showing no report of a malfunction of the system.

Spitaleri's statement that there had been failures to slowdown the lowering of a container in the past requiring a stoppage until a mechanic examined the system is interesting. If that is accurate, where are those records? None have been produced. If that is accurate, what steps did NYCT take to notify Liebherr and require Liebherr to make repairs or adjustments to the system pursuant to Liebherr's contractual obligations. There is no evidence that NYCT ever complained to Liebherr about the operation of the slowdown system or sought repair.

Part III: Legal Issues Presented

A. What Are the Criteria to be Met to Prove A Design Defect?

Plaintiff alleges that the failure of Liebherr to provide a design for the refurbished Paceco cranes for the over land slowdown system with a redundant slowdown feature for NYCT made the product Liebherr delivered not reasonably safe.

Among the factors to be considered in determining whether a product is reasonably safe are (1) the nature of and likelihood that the product would cause injury; (2) the product's utility to the public as a whole and to the individual user; (3) the technological and economic feasibility of a safer design, that is that the product remains functional and reasonably priced; (4) the plaintiff's awareness of the danger and the ability to have avoided injury with careful use of the product; and (5) the manufacturer's ability to spread the cost of any safety-related design changes [*Jarvis v Ford Motor Co.* 69 F. Supp 2d 582 (SDNY-1999); *Voss v Black & Decker Mfg. Co.*, 59 NY2d 102 (1983)].

> In a products liability case, the "touchstone" of any expert's report should be a comparison of the utility and cost of the product's design and alternative designs....This comparison should usually be supported by testing of the alternative design....[The expert's] conclusions do not contain any such comparisons or testing. Thus, his report lacks sufficient detail for the court to evaluate the reliability of his opinions (citations omitted). [*Hilaire v Industrial Tool Co.*, 2014 WL 5025994 (EDNY 2014)].

Applying these principals to the facts of this case leads to the conclusion that the plaintiff has a failure of proof. Plaintiff's expert offered no testimony that the installing his proposed absolute encoder system was "economically feasible." Assuming for the moment plaintiff has met the other required criteria, there is absolutely no testimony as to the cost of installing the proposed redundancy system. Would the cost be economically feasible or would it be prohibitive so that replacing the Paceco cranes with new Liebherr cranes would be more cost effective than refurbishing them as plaintiff's expert proposed.

Plaintiff has presented absolutely no evidence on the economic feasibility issue and therefore there is a failure to make out his prima facie case. Hartzell offered no testimony as to the economic feasibility of installing an absolute encoder system and thus the plaintiff has failed to make out its prima facie case.

Also, as became apparent in Part I, the ultimate responsibility for the design of the slowdown system was not with Liebherr it was with NYCT which in addition to its own in house experts and employees hired third party design and structural experts to review the specifications and contract, and Liebherr's proposed design to refurbish a crane in conformity with NYCT's needs. Liebherr designed what NYCT requested.

Plaintiff's expert has failed to establish one of the necessary elements to permit plaintiff to prevail.

B. What are the Criteria to Prevail on a Lack of Redundancy Theory?

Plaintiff contends that had Liebherr designed the system using absolute encoders either as the primary slowdown technique or as a secondary slowdown

system in the event there was a failure of the limit switch system and operator error, the incident would not have happened. The court's language in *Aparacio v Acme American Repair, Inc.*, 33 AD3d 480 (2006), which involved the tipping of a commercial kettle, provides some guidance.

> To the extent that plaintiffs' expert suggests that the lack of a redundant safety feature, in the form of a pin that previous models had included and which has prevented tipping in the event of failure of the bearings, was a design defect, he presents no foundational support showing the frequency of tipping accidents with models using a pin as opposed to the newer design, industry standards, or test results....Indeed, the claim appears not that the kettle was not "reasonably safe in design"..., but that it could have been made safer. However, [the manufacturer] "did not have a duty to design invincible, fail-safe, and accident-proof products...incapable of wearing out (citations omitted).

Plaintiff herein has not established that the Liebherr slowdown system ever failed. There is no evidence of that. Plaintiff's expert opines that whether the incident was caused by a failure of the Liebherr slowdown system or operator error, the existence of the redundant slowdown mechanism would have prevented the incident. Plaintiff has not established that the Liebherr system was not reasonably safe in design, in fact the expert admitted that it was a reasonably safe system widely used in the industry. The expert has opined that it could have been made safer. A defendant does not have a duty to design an invincible, fail-safe, and accident proof product [*Altinma v East 72nd Garage Corp.*, 54 AD3d 978 (2008)].

> Manufacturers and suppliers are not obligated to supply merchandise that is accident proof but are held to the same standard applied in negligence cases generally, reasonable care...By all accounts, the loader was "stable" or "very stable" when operated properly, and the record does not suggest that it differed in any material safety feature from products marketed by the industry generally. [*Biss v Tenneco, Inc.*, 64 AD2d 204 (1978)].

Plaintiff's expert admitted that the Liebherr system was widely used in the industry and that he had no knowledge of any failure of the system at the NYCT terminal. His statements that he was aware of intermittent failures at other terminals was unsupported by any specifics, or documentation describing the alleged defective systems and the nature and cause of the alleged failure [*Geddes v Crown Equipment Corp.*, 273 AD2d 904 (2000)] . As a result it is inadmissible hearsay and speculation. In fact, he admitted that no system is one hundred percent safe nor free of occasional failing even when properly used and maintained. He presented no statistics as to industry-wide studies comparing the failure rate of the NYCT system with those terminals using absolute encoders. He offered no verifiable basis for his opinion.

The evidence established that the system met all national and industry standards, and was safe for its intended use when properly maintained and operated. No law or regulation required a redundant system or other safety device as posited by plaintiff's expert. The conclusory assertions of an expert, unsupported by sufficient facts, data or industry regulations fails to raise a question of fact [*Cordani v Thompson& Johnson Equipment Co. Inc.*, 16 AD3d 1002, (2005)].

Plaintiff has failed to establish that the Liebherr system was "unsafe" and that it failed to operate as designed. Even if the court accepted all of the expert's testimony concerning the benefits of a redundant slowdown system, that testimony is insufficient under New York law to hold the defendant liable for injuries which may have been prevented by a redundant system.

C. Who is in the Best Position to Judge the Need of Additional Safety Systems?

Plaintiff contends that Liebherr, as the designer, should be liable for failing to install the redundant system. As pointed out in Part I, the ultimate acceptance of the design and if not the original source rested with NYCT the buyer of the product. NYCT prepared the initial contract and specifications. Liebherr was the successful bidder hired to execute the design and installation of the NYCT specifications. But what components went into the refurbishment were not unilaterally selected by Liebherr. NYCT had its own personnel and at least two outside design and consulting firms reviewing the Liebherr proposals and work throughout the project. So there are factual questions as to whether Liebherr has any liability for the design and component selection. This court believes that any alleged responsibility Liebherr had in that regard, is negated by the terms of the contract and specifications and that NYCT had the ultimate say in what components were used and as to the efficiency, feasibility and cost of the project.

New York law has consistently held the buyer as responsible for the installation of safety options because the buyer is in the best position to make the risk-utility assessment.

> [The purchaser] is the party in the best position to exercise an intelligent judgment to make the trade-off between cost and function, and it is he who should bear responsibility if the decision on optional safety equipment presents an unreasonable risk to users. To hold otherwise casts the manufacturer and supplier in the role of insurers answerable to injured parties in any event, because the purchaser of the equipment for his own reasons, economic or otherwise, elects not to purchase available options to ensure safety....It is the purchaser who best can make the decision and he should bear the loss from his failure to do so. [*Biss* @ 207].
> See also[*Scarangella v Thomas Built Buses*, 93 NY2d 655 (1999)].

Plaintiff would have the court believe that NYCT merely rubber stamped all of the recommendations of Liebherr in regard to the project and its design. The

evidence described in Part I, completely negates that conclusion and supports a finding that NYCT relied on entities other than Liebherr before finally approving Liebherr's design and that they wanted and were satisfied with keeping the slowdown system existing on the Paceco cranes so that is for what the contracted.

In fact, NYCT was an educated and experienced purchaser. It had previously used the system Liebherr installed. It had consultants reviewing all plans and actions of Liebherr. It provided the contract and specifications to the vendor. So it was in the best position to decide what safety devices were technically and economically feasible for the refurbished cranes.

Plaintiff has not overcome the presumption that the purchaser, NYCT, is the best judge as to what safety devices it wants to purchase and not Liebherr, the designer.

D. Did Plaintiff Prove Any of His Causes of Action?

1. Design Defect Under Strict Liability.

For the plaintiff to prevail on a design defect arising under strict liability, the plaintiff must establish that the product, as designed, was not reasonably safe. Liability attaches when the product, as designed, presents as unreasonable risk of harm to the user. [*Voss v Black & Decker Mfg. Co.*, 59 NY2d 102 (1983)].

There is no showing that the over land slowdown system designed and installed by Liebherr presented an unreasonable risk of harm. In fact, plaintiff's expert admitted that the system is reliable and was in use extensively by container terminals. The fact that it is not the newest technology or that other systems may be more efficient, is not enough to establish that the design was unsafe.

Plaintiff has failed to prove his prima facie case for a claim under a strict liability theory that the Liebherr system was an unsafe design.

2. Products Liability Based on Negligent Design.

In a negligent design case, the reasonable-person standard has been given a more specific form. The question becomes one as to whether the product is one that if the design defect were known at the time of manufacture, or in this case at the time of the design of the system, a reasonable person would conclude that the utility of the product did not outweigh the risk inherent in marketing a product designed in that manner [*Reis v Volvo Cars of North America*, 24 NY3d 35 (2014)].

Plaintiff has failed to prove that the design installed by Liebherr, (whether it was in actuality Liebherr or NYCT who selected the design will not be considered a relevant for the sake of this argument), was not reasonably safe. There is no proof

that the system failed and caused the incident. There is no showing that it was not reasonably safe. NYCT was an educated and experienced purchaser and had consultants reviewing Liebherr's work. The system had operated safely from 1984 until 2007 so there was no need to replace it merely because it was old.

3. Breach of an Express Warranty.

Uniform Commercial Code (UCC) §2-313 sets forth the circumstances when an express warranty arises in a transaction whether provided for in the agreement or not. Plaintiff asserts that he is the third party beneficiary of the contract between his employer, NYCT, and Liebherr. Plaintiff alleges that the express warranty is the clause in the specifications that the refurbished crane contain a "state-of-the-art" programmable logic controller and that the defendant failed to install such a system.

Plaintiff contends that the defendant breached that warranty by not installing a redundant system as suggested by his expert. As noted above, there are several fallacies with plaintiff's argument. First, the system installed by Liebherr was the one that previously existed on the refurbished crane and the one that NYCT as the purchaser wanted and was approved by NYCT's consultants. Second, plaintiff's expert did not provide any statistics as to how prevalent his recommended system was in the industry. He only spoke in generalities. Third, the language of the contract and specifications is clear that there was to be a separate contract with the control system supplier who was responsible for selection of the system and the system was to be approved by NYCT. Plaintiff did not establish whether the control system was purchased by Liebherr or NYCT for the project.

Plaintiff has failed to prove that the defendant breached an express warranty to NYCT. There was never an agreement to provide a redundant system as the one suggested by plaintiff's expert. Liebherr delivered what NYCT wanted, contracted for and approved. Liebherr delivered to NYCT what it as the buyer considered "state-of-the-art" for its purposes. NYCT had ample opportunity to question the selection of the system and did not. If there was any warranty arising from the "state-of-the-art" clause, it ran from Siemens and NYCT and not Liebherr.

There is case law that holds that the term "state-of-the-art" is merely a statement of opinion and is often treated by the courts as "puffery" [*Shema Kolainu-Hear Our Voices v Providersoft, LLC*, 832 F.Supp.2d 209 (EDNY 2010)]. Under UCC §2-313(2), "a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty."

Plaintiff has failed to prove that Liebherr made and breached any express warranty concerning the Siemens system.

4. Breach of Implied Warranty.

Plaintiff alleges that the Liebherr breached an implied warranty under UCC §2-314 and that plaintiff is an intended beneficiary of that implied warranty under UCC §2-318. New York recognizes that a cause of action based on strict liability does not preclude a separate cause of action based on breach of an implied warranty [*Denny v Ford Motor Co.*, 87 NY2d 248 (1995)].

Under the UCC, the inquiry is whether the product was fit for the ordinary purposes for which the goods are used [UCC §2-314(2)(c)] and that the expectations for the performance of the product when used in its customary, usual and reasonably foreseeable manner are met [*Denny* @ 259]. Plaintiff has failed to establish that the Liebherr system was in breach of this implied warranty. There is no proof that the system failed. There is no proof that Liebherr did not deliver what NYCT wanted. In fact, NYCT was so satisfied with this as its existing system that it and all of its third party consultants approved of its continued use on the refurbished cranes.

Plaintiff has failed to prove that Liebherr breached any implied warranty.

Conclusion:

Defendant Liebherr's motion for a directed verdict after presentation of plaintiff's case at trial is granted.

All of plaintiff's causes of action are dismissed on the merits.

As set forth above, plaintiff's expert failed to establish the economic feasibility of the system he proposed. Plaintiff did not establish that the system failed or malfunctioned. The documentary evidence seriously questioned whether Liebherr was even the actual designer of the system. The court finds that Liebherr designed and installed the system called for by NYCT and its third party consultants in the contract and specifications which they, and not Liebherr, generated. Further, that the controller system in question was provided by another entity, Siemens, selected by NYCT and not Liebherr. There was no need for a redundant system.

Perhaps the best analogy of the thrust of plaintiff's case is as follows:

I can wear a pair of pants without a belt or suspenders. If they fit properly, the pants will stay up on their own. If I am concerned about my pants falling down, I can use either a belt or suspenders. In most situations, either the belt or the suspenders would be sufficient to keep my pants up. Plaintiff is advocating that because there could be a situation where either the belt or the suspenders could fail, I should employ a redundant system and utilize both. Even if there is no evidence that either one had failed in the past. On the other hand, using both a belt and suspenders could be the wrong solution should I be in a boating emergency and

need to inflate my pants to create a floatation device. Having one or both a belt and suspenders might actually hinder survival.

The foregoing constitutes the decision and order of the court.

Settle order on notice.

ENTER,

DATED: April 17, 2015

Philip S. Straniere
Acting Justice of the Supreme Court

GRANTED
JUL 14 2015

STEPHEN J. FIALA