PHOTOS:
Yes_x__ No___

Turner Construction Company – Incident Investigation Report

(To be completed within 24 hours by Supervisor)

GENERAL INFORMATION

Date: 2/16/07 of Event (Rpt. Date 1/21/07) Contract Number: 1304500

BU Name: San Jose Project Name: LCLS

Project Address: 2575 San Hill Rd., Menlo Park

Program: X CCIP ____ CORP ____ OCIP ____ Other (explain) ____

Site Contact Name: Dan Goodman Phone 408) 640-6067 Cell 510-292-6420 (Lyons)

Exec: ____ Superintendent: Dan Driver

Date of Incident: 2 / 16 / 07 Time: 10:00 AM / PM Shift: Day Friday

Date Reported: 2 / 16 / 07 Time Reported: 1000 AM

Jobsite / Area: Affholder Lay down Yard

Weather Condition: Good. Clear and dry Lighting Condition: Good

INURED PARTY INFORMATION

Name: N/A

Male ____ Female ____ Date of Birth ____ / ____ / ____ Ht. ____ Wt. ____

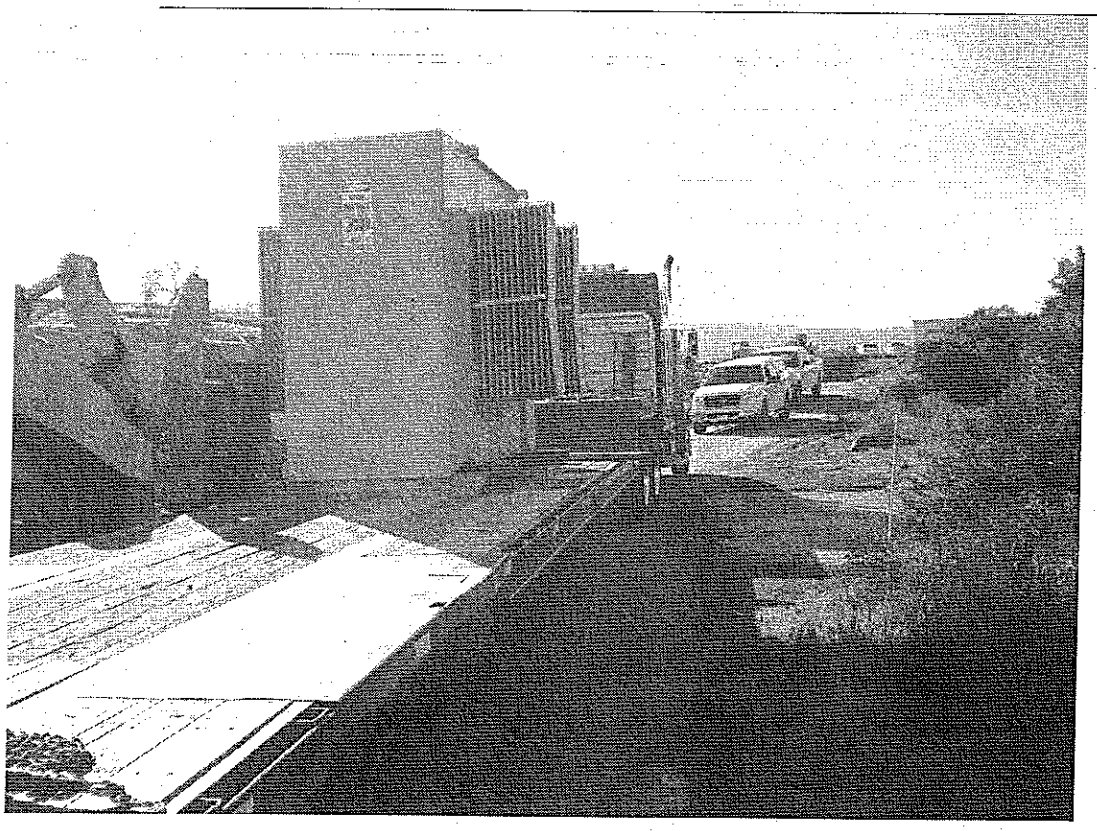
Address: ____

Home Phone: ____ Employee ID#: ____

ıployee Job Title: ____ Length Employed: ____

Employer Name: ____ Supervisor: ____

Employer Address: ____



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Yes_x__ No___

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INCIDENT DESCRIPTION

On the morning of February 16 at approximately 10:00 AM, A crew from Affholder Inc. was in the process of loading a large transformer to a low-bed trailer for removal to LA yard. Unit was suspended by two fabric straps by a loader with fork attachments. Rough edged anchorages were at the top of the unit. As unit was being moved to the trailer, it reportedly slid forward. As it slid, it struck the side of the trailer. Damage to the unit was noted. The unit contains oils of unknown composition. There was no leakage. The unit reportedly dropped 1-2 feet to the ground as it slid off the tines. Damage to the unit approximately 4' up supports this fact. The straps were severerly damaged and retained for the investigation.

Since the integrity of the transformer could not be determined, it was isolated for several days with spill containment provided. As the unit did not leak, it was determined by the Owner, that the transformer should be shipped off-site in lieu of pumping off the contents prior to transport. This was agreed to by TJ Lyons of TCCO.

Directly after the event, the operator of the loader was immediately sent for drug and alcohol screening. The results were negative.

Note: The unit was later set atop the trailer using the forks under the transformer.

This investigation is based on interviews, inspections of the equipment and conditions, some conjecture and rough calculations on loads, sling capacities and tipping potentials. All is based on a reasonable approach to the likely conditions that existed.

Date: 2 / 21 / 2007 Prepared By: TJ Lyons

WITNESS INFORMATION

Name:	William Wyman	Company:	Affholder - truck driver	Phone:	
Name:	David McNight	Company:	Affholder - Foreman	Phone:	
Name:	David Richards	Company:	Affholder - Laborer	Phone:	
Name:	Wayne Sweat	Company:	Affholder – Equipment Operator	Phone:	

INCIDENT INFORMATION

Describe the nature and extent of injury / illness (body part affect, type of injury, etc) N/A

Was First Aid Administered? _____ Yes _____ No By Whom: _____

Was Employee/Third Party taken to Hospital / Clinic? _____ Yes _____ No

If Yes, List name, address and phone #

Is the employee in a Trade Union? X Yes _____ No If Yes, provide Trade & Local # Operating Engineers #3

Is Protective Equipment required for this task? _____ Yes _____ No If Yes, describe equipment, if it was used, if it was adequate / functioned properly and if the employee(s) were trained on it. _____

PHOTOS:
Yes_x__ No___

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What **PERSONAL ACTION(S)** may have contributed to the incident? (Consider tools, equipment, employee/supervisor actions)

The determination to lift the load from under the forks indicates poor judgment and lack of competency by those involved.
The best lifting activity was cables and crane.
TCCO, nor the safety manager for Affholder, Jack Lynch,was notified that this pick was to occur. This scrutiny was missed.
The operator (responsible party) and others did not know the weight of the unit.
Reportedly as the unit was lifting (boom) the forks started to descend, perhaps from the load. It is reasonable that the operator would have stopped the machine, initiating a swing of the load away from the counterbalance, this would take load off the straps and further allow for slippage on the tines.
From an Affholder interview with the operator, he thinks he may have actually backed away during the event, further contributing to load swing.
The device had been lifted in the past in the same configuration providing a faulty history of success.
TCCO must re-enforce the need for contractors to notify them of significant events or risks they may undertake on the project.
If a robust communication and expectation of the safety process was in-place, the subcontractor would likely have notified Turner as they prepared for the lift and this incident would possibly have been avoided.

What **PHYSICAL CONDITION(S)** may have contributed to the incident (consider tools, equipment, work conditions, environ)

Improper use of a fork truck. Base loading (forks under) second best approach. Due to fragility of unit and tall height/base ratio ane would be the appropriate device for a lift.
The distance away from the tipping point may have place an excessive burden on the hydraulic capacity of the lifting device.
A quick calculation of load indicates a max center load (22,000 lbs.) on the forks at 2.5 feet from the base of the forks. This is where the straps were placed, suggesting the load descended due to imbalance.
The configuration of the nylon straps created excessive loading. A calculation of the configuration and load indicated each sling was derated to an actual capacity of approximately half their rating. The straps had a capacity of 22,136.4 pounds.
The load was 22,000 lbs. and the sling angle estimated at 34 degrees.
The lack of swing restraint likely contributed to movement of the load. Examination of the slings indicated that the load burned the slings for a distance of approximately 6" prior to cutting into the material. This corresponds with the calculations.
The surface of the lifting hooks was rough. This was not a suitable attachment for a fabric sling.
The edges of the forks were sharp and no protection was provided.

PHOTOS:
Yes_x__ No___

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CORRECTION ACTION(S) TAKEN OR PLANNED		
What was/will be done	By Whom	Estimated Completion Date
A summary of the incident will be held 2/22/07 at the TCCO office	TCCO/AFF	2/22/07
Affholder has been notified that they are required to report on any hazardous activity to TCCO prior to initiation. TCCO was not aware a critical lift was planned.	TJL	2/21/07
A training course by a competent 3rd party is required to provide information for Affholders crews on proper rigging techniques.	Affholder	Immediately
Turner is asking that the individual supervising this lift and/or the operator receive discipline based on the Affholder company protocols.	Affholder	Immediately
Turner to address all subcontractors that any event that presents risk must be planned and TCCO notified for their input and/or oversight.	TCCO	Subcontractor Coordination Mtg. 2/27/07
There is the potential for overloading and subsequent damage to the hydraulic system on the loader. Affholder has been charged with a full inspection of the machine to ensure it has not been damaged.	Affholder	Prior to use
Affholder must receive training at all levels of their organization in the implications he NFPA 70E on their temporary power supplies.	Affholder	Within 30-days

All Incidents need to be immediately reported to your BU Safety Director & Claims Manager.
Fax copy of Report and applicable attachments to (510) 267-0784.

Date: 2 / 16 / 2007 Prepared By: TJ Lyons

SUMMARY:

One can look at this incident as inadequate and incompetent oversight, and that played a part. However a root cause for this event was the improper specification by Affholder of the transformer for its use. The reason for the movement of the unit was its failure to conform to electrical requirements for the NFPA 70E arc generation potential. Affholder was not aware of the NFPA needs until after delivery of the unit. TCCO will be looking into the inadequate communication of this standard and its requirements through our MEP and Purchasing coordination group.

This is the second of occurrences on the project with similar roots. In an earlier incident, substandard office trailers were obtained hence requiring significant upgrades while on the site. This entailed the presentation of considerable, avoidable risks to the project.

Photos of Interest Follow

PHOTOS:
Yes_x__ No___

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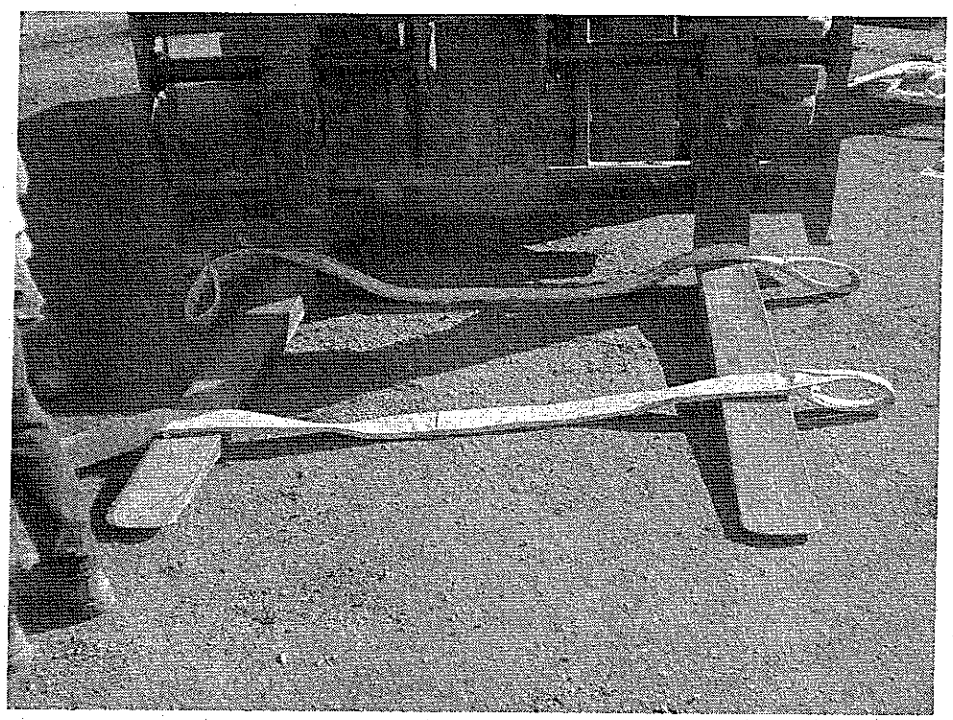

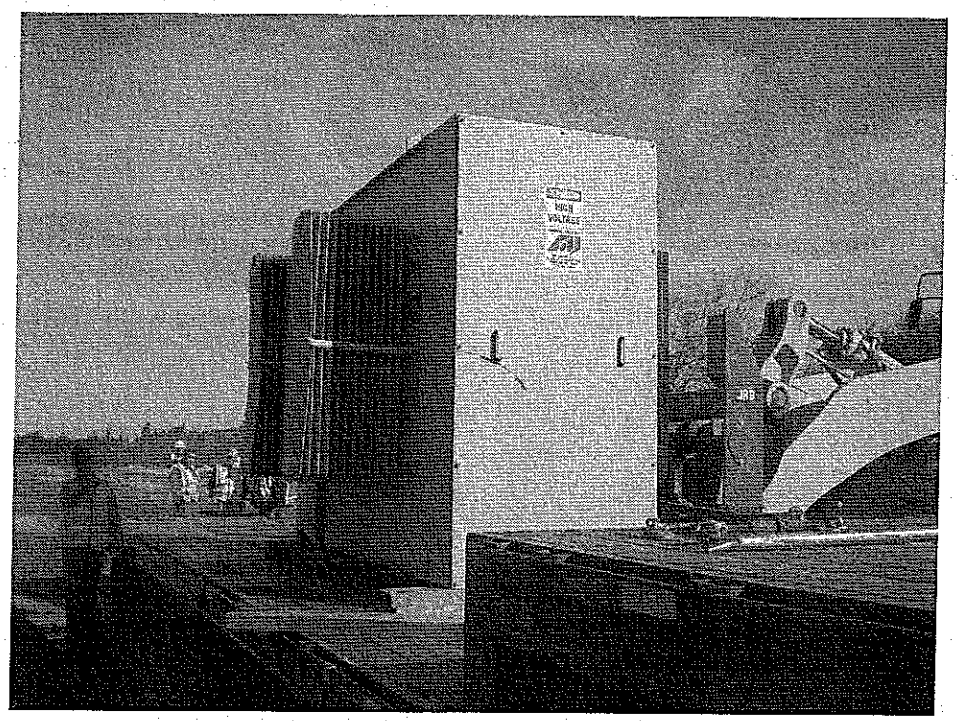

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