

PUBLIC UTILITIES COMMISSION

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**PROJECT MEMORANDUM****SUNRISE POWERLINK PROJECT – PRELIMINARY INCIDENT REPORT NO.1**

Date: June 15, 2011
To: Interested Parties
From: Billie Blanchard, CPUC Project Manager
Subject: Sunrise Powerlink Construction Helicopter Incidents June 7 and 10, 2011

Please note that the information in this memorandum is preliminary and subject to being updated as additional information becomes available.

The CPUC has been investigating two Air Crane helicopter incidents on the Sunrise Powerlink project (reported below). The FAA is involved and is viewing the two events as a single incident because it involved the same aircraft and same hook system. The FAA has suspended all operations of the particular helicopter involved, pending further investigation, and will need to approve use of any replacement helicopter. The Air Crane helicopter involved in the incidents has been taken out of service and returned to the manufacturer, where it will be inspected and tested. FAA will be involved in the process and will issue an incident report. A replacement helicopter supplied by the manufacturer is en route to southern California. SDG&E will be required to demonstrate that the replacement aircraft is capable of operating safely before it is put into service on the Sunrise project.

1) Tuesday, June 7, 2011 – First Incident

- SDG&E reports that on the morning of the incident the flight and ground crews as well as the safety officer and traffic controllers conducted a briefing at SDG&E's Plaster City Yard, located near Plaster City, Imperial County, California.
- Skies were clear, with 10 mile visibility and mild winds with gusts.
- After routine control system safety checks, SDG&E's three-pilot aircraft air crane (manufactured by Erickson Air-Crane) began operations lifting and delivering sections of lattice steel tower to construction sites. Traffic control personnel are reported to have been on location on the nearby highway. Their job is to control traffic during a fly over of the road.
- Four lifts had occurred already that morning, with a delivery distance of one to three miles, before the incident in question.
- At approximately 8:40 AM, the ground crew secured the four hooks from the hovering helicopter to a lattice steel tower section at the Plaster City Yard. The ground crew communicated to the helicopter that the payload was secured and ready to be lifted. In the lift operation, a pilot at the rear of the helicopter has command. After the vertical ascent is begun, command is transferred to the pilot at the fore of the helicopter. This is a standard procedure that takes about five seconds
- The load was approximately 16,400 lbs.
- The helicopter began its routine climb out of the yard.
- About five to ten seconds later, when the payload was approximately 150 feet above the ground, all four hooks securing the payload made an uncommanded release of the payload. The tower section landed about 20 to 30 feet north of Evan Hughes Highway on BLM land.

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- The air crane circled and radio communications were established with the safety officer, who headed to the site. At the same time, the pilots checked to be sure no pilot error had occurred causing the release.
- The aircraft returned to the yard and all air crane operations were halted immediately. The aircraft was secured and the crew sequestered.
- Fortunately, there were no injuries. Because there were no injuries, no report was made to OSHA.
- The pilot notified the FAA of the incident, as required. The pilot, SDG&E, and Erickson's corporate office began communications over the incident.
- A construction crew was dispatched to the site where the tower landed to disassemble and remove the steel.
- After initial trouble shooting and checking its air worthiness, the helicopter was flown to Gillespie Field, where FAA examined the aircraft and interviewed the flight crew.
- Erickson Air-Crane's troubleshooting team arrived that night. The next day, June 8th, the team inspected the aircraft over a period of approximately eight hours. They found suspect wiring associated with the release control at a bulkhead connection point, which they removed and rewired.
- FAA was informed of the results and was advised of planned tests of the release system to be conducted on the following day. FAA determined that the event was an 'incident' and not an 'accident' and requested to be kept informed.
- On Thursday, SDG&E conducted tests of the hook system and collateral systems in the hanger and again on the ramp before flying to its facility at Rough Acres. Here, SDG&E conducted lift tests using concrete blocks to simulate a 16,000 pound load. During these tests, the system operated as designed. Four separate lifts were made during which the helicopter was shaken by the pilot and patterns were flown over the site. When lowering the payload to the ground the aircraft was intentionally subjected to shuddering. No problems or concerns were identified during any of the four tests.
- A post-test briefing was conducted and the crew chief again inspected the system.
- SDG&E released the aircraft to begin flying again Friday morning and they let FAA know this.
- A biological monitor and an archeological monitor were brought to the site of the drop to assess any impacts to sensitive resources. It appears that the tower did not adversely affect any sensitive resources. Restoration of the site will be required of SDG&E

2) Friday, June 10, 2011 – Second Incident

- At approximately 4:45 a.m., the helicopter was flown from Rough Acres to the Plaster City Yard, where it was shutdown and the normal day's briefing was conducted, after which routine operations began.
- Four lattice steel tower sections had been set in place that morning prior to the second incident.
- At approximately 8:00 AM, the helicopter was preparing to set in place a fifth section at tower site EP 339. With the section about 40 feet from the tower the crew felt a jolt and determined that three of the four hooks holding the tower section had released unexpectedly.
- After confirming the airworthiness of the helicopter, the crew lowered the tower section to the ground using the fourth hook, which took about 20 seconds. With two legs on the ground, the pilot attempted to set the tower section upright. During this part of the operation, the fourth hook made an uncommanded release and the tower section toppled.
- There were no injuries.

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- Communications were established with FAA and other parties.
- FAA immediately suspended operation of the aircraft pending an investigation. The helicopter was returned to Gillespie Field.
- After determining its airworthiness, the helicopter was returned to the manufacturer, Erickson Air-Crane, in Oregon.
- At Erickson, the control mechanism is to be taken apart and inspected in order to identify the reason(s) for the releases. The FAA will be involved in this inspection. No information is available from the FAA until a final report is made, at which time the incident report will be available through a Freedom of Information Act (FOIA) request.
- A replacement Erickson Air Crane is being ferried to Southern California from North Carolina. It is the same type of helicopter as the first one, but has hook controls that predate the new digital hook controls installed in the SDG&E helicopter.
- Upon arrival during the week of June 13, the replacement helicopter will undergo routine maintenance and lift test will be conducted. The FAA will observe the tests and under its authority to issue operating certificates will determine if it will authorize the aircraft to engage in construction lifts for the project.
- SDG&E is required to submit Congested Area Plans (CAPs) for FAA approval before operating in congested areas. These lay out all procedures to follow.
- The replacement helicopter will not be put into service until CPUC is satisfied that all appropriate inspections and tests have been completed to ensure that the hook system operates safely and as designed.

Photographs - June 7, 2011 Incident









June 10, 2011 Incident





