

**DOCKETED**

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TN # 69848

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**From:** Rushmore, Kathy [<mailto:kathy.rushmore@urs.com>]  
**Sent:** Monday, February 25, 2013 4:07 PM  
**To:** Hope, John@Energy  
**Cc:** Heiser, John@Energy; Worl, Robert@Energy; Shileikis, Dale  
**Subject:** HECA Bridge Evaluation

John,

Please find attached a response to your follow-up questions regarding the bridge evaluation referenced in our response to Workshop Request A22. Please let me know if you have any further questions.

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## **RESPONSES TO QUESTIONS REGARDING THE BRIDGE EVALUATION FROM CALIFORNIA ENERGY COMMISSION (CEC)**

CEC Background: In Response A22 of the *Responses to CEC Workshop Requests: Nos. A1 through A32*, the applicant identifies they engaged a specialized heavy haul contractor to evaluate the heavy haul route. The applicant also identifies that the evaluation concluded the bridges have sufficient capability to support heavy haul loads using specialized conveyance equipment. Staff needs some additional clarification to validate this.

### **CEC QUESTION 1**

- 1) Name of the “specialized heavy haul contractor”

### **RESPONSE TO QUESTION 1**

Contractors Cargo Company (CCC)

### **CEC QUESTION 2**

- 2) Name of person(s) that conducted the evaluation

### **RESPONSE TO QUESTION 2**

Leon Franks at CCC conducted the survey in December 2009.

### **CEC QUESTION 3**

- 3) Description of how conclusions were reached in that “bridges have the capability to support the estimated heavy haul loads”

### **RESPONSE TO QUESTION 3**

CCC conducted a survey of the route from Port of Stockton, California to Tupman, California in December 2009. CCC conducted the survey to identify major obstacles along the route based on a preliminary list of major equipment to be shipped to the site. CCC concluded that:

“At the time of the survey, all structures from the Port of Stockton, Ca to the delivery site [HECA Project Site] are rated 5P, which in the Cal Trans bridge log is the highest rating that can be given to a structure. This means a fully loaded 13 axle transporter can cross these structures without being analyzed. Anything heavier automatically goes to Cal Trans Bridge Division for further analysis. 5P bridges will pass heavier loads as long as axle loading conforms to Cal Trans Purple weight formula. \*\*All surveyed loads do conform to this formula.”



The Caltrans Purple weight formula is specified in the table below:

**APPENDIX 20  
WEIGHT CHART (PLATE 25-5)**

**PURPLE AND BONUS OVERLOADS\***  
MAXIMUM PERMIT WEIGHT ON TANDEM AXLES = 80,000 POUNDS

Example: 8' - 0" Distance Between First and Last Axle in Feet

50,400	4 tires, 8' - 0" Wide	Purple Load = 1.5 x 700 (L + 40)
57,980	8 tires, 8' - 0" Wide	Purple Load (+ 15%) = 1.15 x 1.5 x 700 (L + 40)
63,000	8 tires, 10' - 0" Wide	Purple Load (+ 25%) = 1.25 x 1.5 x 700 (L + 40)

IN. FT.	0	1	2	3	4	5	6	7	8	9	10	11
2	28,000 32,000 35,000											
3	28,000 32,200 35,000	28,000 32,200 35,000	28,000 32,200 35,000	28,000 32,200 35,000	28,000 32,200 35,000	28,000 32,200 35,000	45,675 49,697 57,084	45,763 49,798 57,203	45,850 49,898 57,313	45,938 49,999 57,422	46,025 50,099 57,531	46,113 50,199 57,641
4	46,200 53,130 57,730	46,258 53,231 57,809	46,375 53,331 57,909	46,493 53,432 58,078	46,590 53,533 58,188	46,638 53,633 58,287	46,725 53,734 58,406	46,813 53,834 58,516	46,900 53,935 58,625	47,000 54,036 58,734	47,075 54,136 58,844	47,169 54,237 58,953
5	47,290 54,338 59,063	47,398 54,438 59,172	47,425 54,539 59,281	47,513 54,639 59,391	47,600 54,740 59,500	47,688 54,841 59,609	47,775 54,941 59,719	47,863 55,042 59,828	47,950 55,143 59,938	48,038 55,243 60,047	48,125 55,344 60,156	48,213 55,444 60,266
6	48,300 55,545 60,375	48,398 55,646 60,484	48,475 55,746 60,594	48,563 55,847 60,703	48,650 55,948 60,813	48,738 56,048 60,922	48,825 56,149 61,031	48,913 56,249 61,141	49,000 56,350 61,250	49,088 56,451 61,359	49,175 56,551 61,469	49,263 56,652 61,578
7	49,390 56,793 61,888	49,498 56,893 61,997	49,525 56,994 62,106	49,613 57,094 62,216	49,700 57,195 62,324	49,788 57,296 62,434	49,875 57,396 62,543	49,963 57,497 62,653	50,050 57,598 62,763	50,138 57,698 62,872	50,225 57,799 62,981	50,313 57,899 63,091
8	50,400 57,890 63,000	50,498 57,991 63,109	50,575 58,091 63,219	50,663 58,191 63,328	50,750 58,292 63,438	50,838 58,393 63,547	50,925 58,494 63,656	51,013 58,594 63,766	51,100 58,695 63,875	51,188 58,796 63,984	51,275 58,896 64,094	51,363 58,999 64,203
9	51,490 59,188 64,313	51,598 59,289 64,422	51,625 59,389 64,531	51,713 59,489 64,641	51,800 59,570 64,750	51,888 59,671 64,859	51,975 59,771 64,969	52,063 59,872 65,078	52,150 59,973 65,188	52,238 60,073 65,297	52,325 60,174 65,406	52,413 60,274 65,516
10	52,590 60,375 65,625	52,688 60,476 65,734	52,775 60,576 65,844	52,763 60,677 65,953	52,850 60,778 66,063	52,938 60,878 66,172	53,025 60,979 66,281	53,113 61,079 66,391	53,200 61,180 66,500	53,288 61,281 66,609	53,375 61,381 66,719	53,463 61,482 66,828
11	53,590 61,583 66,938	53,698 61,683 67,047	53,725 61,784 67,156	53,813 61,884 67,266	53,900 61,985 67,375	53,988 62,086 67,484	54,075 62,186 67,594	54,163 62,287 67,703	54,250 62,388 67,813	54,338 62,488 67,922	54,425 62,589 68,031	54,513 62,689 68,141
12	54,600 62,790 68,290	54,698 62,891 68,399	54,775 62,991 68,499	54,863 63,092 68,578	54,950 63,193 68,688	55,038 63,293 68,797	55,125 63,394 68,906	55,213 63,494 69,016	55,300 63,595 69,125	55,388 63,696 69,234	55,475 63,796 69,344	55,563 63,897 69,453
13	55,690 63,898 69,593	55,788 64,008 69,702	55,825 64,109 69,811	55,913 64,209 69,921	56,000 64,300 70,000	56,088 64,401 70,109	56,175 64,501 70,219	56,263 64,602 70,328	56,350 64,703 70,438	56,438 64,803 70,547	56,525 64,904 70,656	56,613 65,004 70,766
14	56,790 65,295 70,875	56,798 65,306 70,984	56,875 65,406 71,094	56,963 65,507 71,203	57,050 65,608 71,313	57,138 65,708 71,422	57,225 65,809 71,531	57,313 65,909 71,641	57,400 66,010 71,750	57,488 66,111 71,859	57,575 66,211 71,969	57,663 66,312 72,078
15	57,790 68,413 72,188	57,898 68,513 72,297	57,925 68,614 72,406	58,013 68,714 72,516	58,100 68,815 72,625	58,188 68,916 72,734	58,275 69,016 72,844	58,363 69,117 72,953	58,450 69,218 73,063	58,538 69,318 73,172	58,625 69,419 73,281	58,713 69,519 73,391
16	58,800 67,800 73,500	58,898 67,921 73,609	58,975 68,022 73,719	59,063 68,123 73,828	59,150 68,224 73,938	59,238 68,324 74,047	59,325 68,425 74,156	59,413 68,526 74,266	59,500 68,626 74,375	59,588 68,726 74,484	59,675 68,826 74,594	59,763 68,926 74,703
17	59,890 68,838 74,813	59,998 68,938 74,922	60,025 69,039 75,031	60,113 69,129 75,141	60,200 69,230 75,250	60,288 69,331 75,359	60,375 69,431 75,469	60,463 69,532 75,578	60,550 69,633 75,688	60,638 69,733 75,797	60,725 69,834 75,906	60,813 69,934 76,016
18	60,900 70,098 76,125											

\* A set of tandem axles with spacing between axles of less than 3' - 6" is considered as a single axle.



#### **CEC QUESTION 4**

- 4) Description of “specialized conveyance equipment”

#### **RESPONSE TO QUESTION 4**

Specialized conveyance equipment includes trucks with axle loadings of 7axle, 9axle, 11 axle, 13 axle, 27 axle, 35 axle and 51 axle transporters.

#### **CEC QUESTION 5**

- 5) Record of conversations with any government agency used to support conclusions made in the evaluation (e.g., DOT, CalTrans, Kern Co.)

#### **RESPONSE TO QUESTION 5**

No record of conversation with government agencies is currently available regarding bridge capacities.