



September 6, 2012

INTER-OFFICE MEMORANDUM

TO: Anson Moran
President

FROM: Ed Harrington *Ed Harrington*
General Manager

SUBJECT: Declaration of Emergency – Repair of HHP facilities:
Failure of Two Transformers at Holm Powerhouse on Unit 1

In accordance with Chapter 6, Article IV, Section 6.60(D) of the Administrative Code of the City and County of San Francisco, I am declaring an emergency on behalf of the Public Utilities Commission.

On July 31, 2012 the HHP Holm Powerhouse Unit 1 (HPH1) tripped off-line. The alarm from the unit indicated a sudden pressure change on the transformer bank. There are three transformers in the transformer bank: Phase A, Phase B and Phase C. Due to the type of alarm, Holm Unit 1 was taken out-of-service and technicians were called to investigate prior to putting the unit back in-service.

On August 1, 2012 HHP crews performed oil tests on the transformer bank and detected combustible gasses “trapped” in the oil on phases A and C. Tested biannually, the combustible gasses had increased from 88 parts per million (ppm) on April 20, 2012 to 9197 ppm on August 1, 2012. Combustible gasses in Phase C were at 1061 ppm. Institute of Electrical and Electronics Engineers standards¹ recommend combustible gasses less than 720 ppm for continued use. Potential consequences of returning a transformer to service with high combustible gasses could be explosion of the transformer. Potential explosion of the transformer represents an unacceptable threat to employee safety and a risk of an oil spill into Cherry Creek.

HHP required assistance from an outside vendor to determine the cause of the increased gasses. The vendor mobilized on September 4, 2012 and determined that the transformer insulation had deteriorated in Phase A and Phase C and must be replaced.

This request for emergency declaration is for resources to perform the repair work beyond the capabilities of City forces as soon as possible and is not anticipated to exceed \$1.5 million.

Edwin M. Lee
Mayor

Anson Moran
President

Art Torres
Vice President

Ann Moller Caen
Commissioner

Francesca Vietor
Commissioner

Vince Courtney
Commissioner

Ed Harrington
General Manager

¹ IEEE standard C57.104-2008, Section 5, Table 2.



Declaration of Emergency
Holm Powerhouse Unit 1 Transformer Repair
September 6, 2012
Page 2 of 2

I am therefore declaring the existence of an emergency. I trust that this meets with your concurrence and approval.

CONCUR AND APPROVE:



Anson Moran – President,
San Francisco Public Utilities Commission

cc:

A. Torres
V. Courtney
C. Sperry

A. Moller Caen
S. Ritchie
Mocc File

F. Vietor
M. Hannaford