November 21, 2011

John Gregson  
Sr. Inspector  
SF PUC

Re: UCSF / Parnassus Campus – Response to 11/4/2011 Warning Notice

In response to the warning notice issued by your office, dated November 4, 2011, UCSF Environmental Health and Safety conducted an investigation to identify possible sources for pH exceedences monitored on 10/21 at the Laurel Heights facility, sampling point D. UCSF Facilities Management identified the sample point as the main sanitary sewer line servicing the Laurel Heights Annex building, which houses the physical plant in support of the main building.

The Chief Engineer was queried for any information regarding cleaning, maintenance, construction or demolition that may result in unusual waste water discharge in October. The Chief Engineer reported that other than routine emissions, boiler #2 had developed a leak in late October and as a result, was drained, refilled and drained again for testing purposes. This process occurred over several days including the violation period.

Recent water analysis of the current online boiler (boiler #1) shows pH within the boiler at 12.1. While this is not direct evidence, it does suggest that the boiler activities in October may have been responsible for the exceedence (pH 11.7). Facilities Management has agreed to pH the boiler water should it require draining.

No significant change in chemical inventory, water treatment chemicals or maintenance procedures were noted within the past 12 months.

If your department monitors any additional exceedences, do not hesitate to contact me directly and we will redouble our efforts.

Sincerely,

Travis Clark  
Environmental Specialist  
Office of Environment Health and Safety  
UC San Francisco  
415.476.5506  
Donald.clark@ucsf.edu
### Annex Engineering Building - Boiler Water Systems

<table>
<thead>
<tr>
<th>Test</th>
<th>Raw</th>
<th>Soft</th>
<th>Feedwater</th>
<th>B #1</th>
<th>Condensate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductivity (as mmhos)</td>
<td>158</td>
<td>161</td>
<td>97</td>
<td>4400</td>
<td>29</td>
</tr>
<tr>
<td>pH</td>
<td>9.2</td>
<td>9.1</td>
<td>9.4</td>
<td>12.1</td>
<td>8.4</td>
</tr>
<tr>
<td>Hardness, total (ppm as CaCO$_3$)</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Alkalinity, P (ppm as CaCO$_3$)</td>
<td>10</td>
<td>2 max</td>
<td>2 max</td>
<td>400</td>
<td>300 - 500</td>
</tr>
<tr>
<td>Alkalinity, M (ppm as CaCO$_3$)</td>
<td>50</td>
<td>100 max</td>
<td>600 max</td>
<td>450</td>
<td>600 max</td>
</tr>
<tr>
<td>Alkalinity, OH (ppm as CaCO$_3$)</td>
<td></td>
<td>350</td>
<td>150 - 500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidizing Reduction Potential</td>
<td>226</td>
<td>400 max</td>
<td>400 max</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphate (ppm as PO$_4$)</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sodium Sulfite (ppm as Na$_2$SO$_3$)</td>
<td></td>
<td></td>
<td>4</td>
<td>25</td>
<td>150</td>
</tr>
</tbody>
</table>

### Boiler #1

Conductivity is above range limit. Recommend scheduled 5 second "Puff" blowdown once a day to purge sludge from the system as well as maintaining proper conductivity control.

#### Phosphate (ppm as PO$_4$)

- Level under range limit due to low online treatment drum.

#### Sodium Sulfite (ppm as Na$_2$SO$_3$)

- Level under range limit due to low online treatment drum.

### Boiler #2

System on Stanby status.

### Boiler #3

System on Stanby status.