

STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Richard Looker)  
MEETING DATE: February 16, 2005

ITEM: 7

SUBJECT: LETTER TO PETROLEUM REFINERIES REQUIRING INVESTIGATION OF FATE OF MERCURY IN AIR EMISSIONS - NOTICE OF INTENT TO ISSUE CWC 13267 LETTER

CHRONOLOGY: September 2004 – San Francisco Bay Mercury TMDL Adopted

DISCUSSION: To begin implementation of the Mercury TMDL, we are addressing mercury sources as we re-issue wastewater and urban runoff program permits, and we are also addressing information gaps in a variety of ways. In this regard we have prepared a letter that we intend to send to all five Bay Area petroleum refineries. This letter requests information on the fate of mercury air emissions from these refineries.

This item is to inform the Board on the content of our proposed letter (Attachment B), provide background information on this issue, and allow the Board an opportunity to endorse the letter or suggest modifications. As stated in the Mercury TMDL implementation plan, adopted by the Board as part of the TMDL in September 2004, the requested information is needed to assess the significance of petroleum refineries as a source of mercury discharge into San Francisco Bay.

Figure 1 (Attachment A) shows estimated mercury inputs and outputs associated with the petroleum refining process. This mercury may be emitted directly to the air from the refinery, transferred to a variety of end products, discharged in wastewater, or can end up in solid waste. We cannot account for approximately 370 kg/yr of mercury, some of which is likely being discharged to the Bay (directly or indirectly) through atmospheric deposition or other pathways.

This letter focuses on collecting information on the portion of mercury in crude oil processed in Bay Area petroleum refineries that is emitted directly to the atmosphere. These emissions can enter the Bay via direct deposition to the Bay surface or deposition to the Bay's watershed and subsequent transport to the Bay via tributaries or urban runoff.

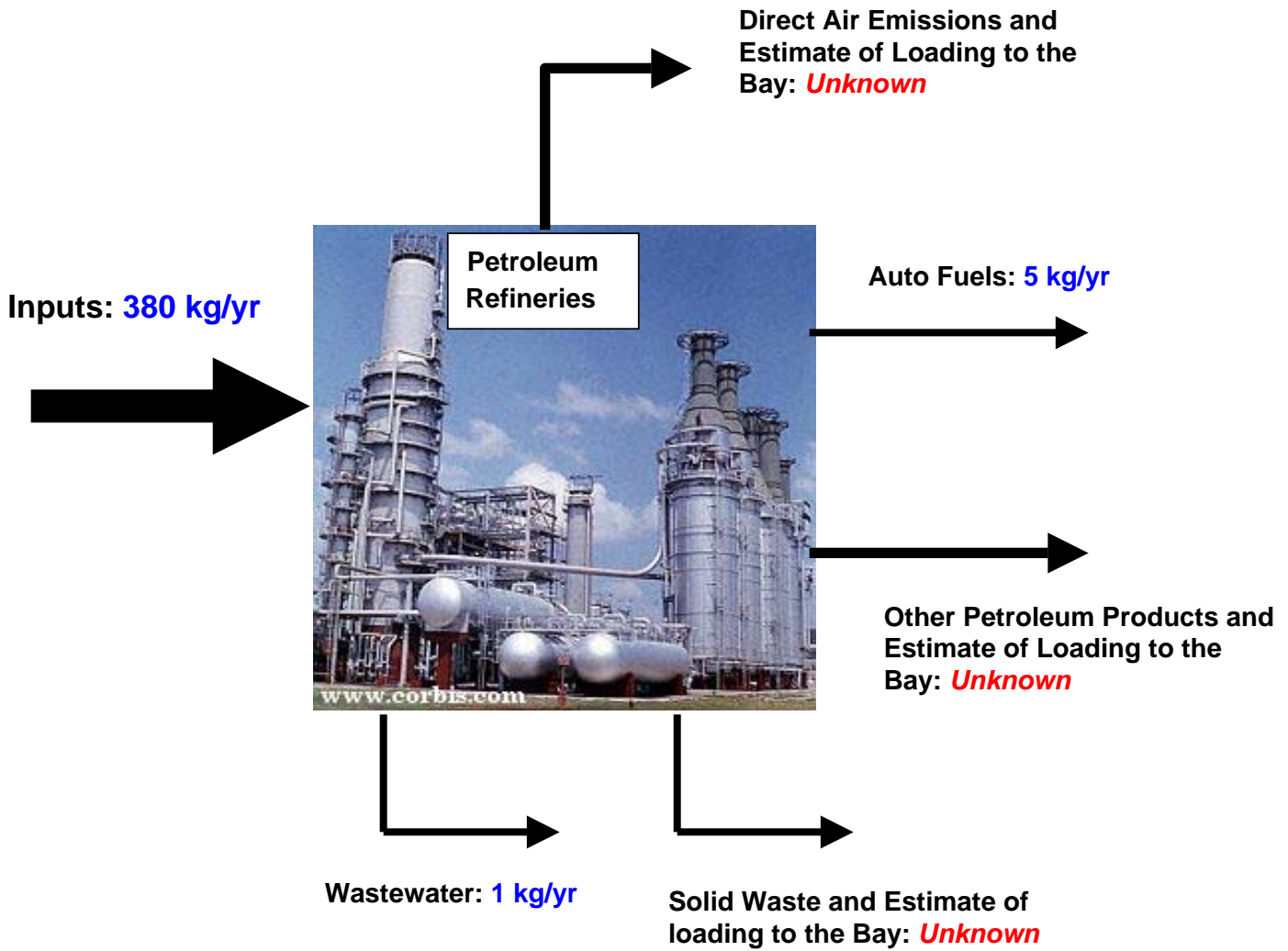
We met with representatives from the local refineries and Western States Petroleum Association to discuss the content of this letter. Although this information request focuses on the fate of direct atmospheric emission of mercury from refineries, the refinery representatives committed to investigate, in a timely manner, the mercury leaving the refineries from the other pathways shown in Figure 1. However, refinery representatives need more time to develop a strategy for accomplishing such an investigation. We will keep the Board informed of progress on these efforts.

RECOMMEN- While this item is for information only, the Board is encouraged to comment on the  
DATION: proposed letter in Attachment B

Attachments: A) Figure 1: Schematic of Mercury Inputs and Outputs for Bay Area Refineries  
B) Proposed 13267 Letter to Petroleum Refineries

ITEM 7 - ATTACHMENT A

Figure 1. Schematic of Mercury Inputs and Outputs for Bay Area Petroleum Refineries\*



\* This figure shows estimated amounts of inputs and outputs. We cannot account for approximately 370 kg/yr of mercury, some of which is discharged (directly or indirectly) to the Bay through atmospheric deposition or other pathways.