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PRELIMINARY DRAFT CURRENT AND FORMER SEWER SYSTEM SITE INVESTIGATION REPORT, NAVAL AUXILIARY LANDING FIELD (NALF) CROWS LANDING, STANISLAUS COUNTY.

We have reviewed the Preliminary Draft Current and Former Sewer System Site Investigation Report (SI Report), submitted 13 March 1998. The SI Report presents analytical results from an soil, soil gas and groundwater investigation conducted to evaluate the *former* and *current* sewer systems for the facility. Also presented are conclusions and recommendations drawn from the SI results. The former sewer line was used during the 1940's and ran north from the administration area approximately 3400 feet and discharged into four oxidation basins. A NASA research building was constructed over these oxidation basins. The current sewer line was constructed and started operation sometime after the 1940's. It is located approximately 250 east and parallel to the former sewer line. We have several comments on the site investigation results for this area.

Former Sewer Line

The analytical results for the former sewer line indicate the presence of semi volatile organic constituents (SVOCs) and total volatile petroleum hydrocarbons (TVPH)-gasoline and BTEX (primarily near the oxidation basins and septic tanks associated with the former sewer line). These analytical results appear to show only an insignificant mass of these constituents in the vadose zone near the oxidation basins and the septic tank. However, it appears the Navy did not verify the location of the former sewer line and did not determine if any laterals extend from this sewer line. This raises the concern that the boring locations and soil, soil gas and groundwater samples that were collected are not close enough to this sewer line and are, therefore, inadequate to determine if the sewer line is a source area for the constituents of concern that were evaluated (SVOCs, VOCs, heavy metals, TPH-E and TPH-P). In order to address this concern the Navy should determine how close the boring locations were placed to the former sewer line.

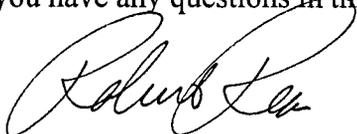
California Environmental Protection Agency

In addition, the Navy should provide a survey (e.g. video survey) and determine the location of any laterals extending from the main trunk of the former sewer line. In particular, the Navy should evaluate if any laterals extend from the main trunk between Building 109 and IRP Site 17. If the survey indicates laterals are present, the Navy may need to conduct additional remedial investigations in these areas. Such a survey should also be used to identify any deficiencies in the main trunk or the laterals of the sewer line (cracks, breaks or sags) and evaluate if additional investigations are also necessary were these deficiencies occur. The Report should also identify construction specifications (depth, diameter and type of pipe material) of the former sewer line. Additional investigations may be warranted if the initial investigation did not include representative analytical data near deficiencies identified in the survey or if the Navy determines that the laterals identified in the survey were used or could have been used for industrial waste disposal.

Current Sewer Line

The SI Report appears to have provided an adequate number of soil, soil gas and groundwater sampling locations and depths to evaluate the current sewer line and the Navy appears to have a better understanding of where the main trunk of this line is located. The Final SI Report should include a brief discussion of the objectives of this investigation and the rationale that was used to select soil, soil gas and groundwater sampling locations (e.g. location indicated a lack of integrity in the sewer line such as a crack, break or sag). However, similar to the former sewer line, it appears the Navy did not determine if any laterals extend from the main trunk. The Navy should conduct additional investigations (video surveys) to determine if any laterals for the current sewer line exist. If laterals extend from the main trunk, these locations may need to be investigated if it is determined that they were or could have been used for industrial waste disposal activities. The survey should also be used to identify any deficiencies and make, if necessary, recommendations for additional investigations.

If you have any questions in this matter, please call me at (916) 255-3050.



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