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## San Francisco Bay Regional Water Quality Control Board

June 10, 2021

GeoTracker No.: T10000012764

Port of Oakland, Airport Division  
Attn. Mr. Jamie Eby (jeby@portoakland.com)  
530 Water Street  
Oakland, CA 94612

**Subject: Comments on Preliminary PFAS Investigation Completion Report and Water Code Section 13267 Technical Report Requirements Order - Oakland International Airport, Oakland, California**

Dear Mr. Eby:

This letter presents comments on the December 23, 2020 Preliminary Per-and Polyfluoroalkyl Substances (PFAS) Investigation Completion Report (Completion Report) prepared by CH2M on behalf of the Port of Oakland (Port) for the Oakland International Airport (OIA) and requires additional PFAS investigation at the OIA per Water Code Section 13267.

As detailed below, the preliminary site investigation did not collect sufficient information to fully characterize hydrogeology, groundwater quality, or the extent of PFAS contamination at OIA. Please note that the requirement of the March 20, 2019 Water Code 13267 Order was to determine the presence or absence of PFAS and if present begin the delineation effort and use the garnered information to assess whether additional investigation work would be required. This revised Order requires the Port to complete additional work and provide additional information to further and fully characterize the extent of PFAS contamination at OIA. To achieve these objectives the Order requires that the Port submit: 1) a work plan, a sampling and analysis plan, and an implementation schedule for conducting additional soil, storm water, sediment, groundwater, and preferential pathway investigations at OIA by **September 30, 2021**, and 2) a report documenting the results of the completed investigations by **December 31, 2021**.

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JIM McGRATH, CHAIR | MICHAEL MONTGOMERY, EXECUTIVE OFFICER

## Background

**Requirements:** The March 20, 2019 Regional Water Board Water Code Section 13267 Technical Report Requirements Order WQ-2019-0005-DWQ (Order) required the Port to prepare a Preliminary PFAS Investigation Work Plan (Work Plan). An August 21, 2019 Regional Water Board staff letter (Staff Letter) provided comments on and conditionally approved the Work Plan. The Staff Letter required the Port to address both the Regional Water Board staff comments and the data gaps in the Completion Report due by December 23, 2020.

However, in a November 6, 2020 conference call Regional Water Board and Port staff discussed the draft Completion Report and the additional investigation requirements documented in the Staff Letter and it was agreed that the Port would complete the further characterization of PFAS during a second phase of investigation that is the subject of this Order.

The Completion Report was submitted timely, and documents soil and groundwater sampling conducted in accordance with the Work Plan. With the submittal of the December Completion Report, the Port has satisfied the requirements of the March 20, 2019 Order.

**Workplan:** The Work Plan identified six locations at OIA where aqueous firefighting foam (AFFF) was stored, used, or released. The Port only investigated four of the six sampling locations proposed in the Work Plan. The Port stated that sampling was not conducted at two locations since they are paved areas and it was difficult to access the subsurface. These areas will be investigated as part of this second phase of investigation as required by this new Order.

**Completion Report Summary and Comments:** Soil and groundwater samples from the four PFAS release sites investigated contained PFAS analytes in groundwater, shallow soil, and to a lesser extent deep soil. Specifically, soil and groundwater samples collected from an area near the Runway 12-30 Incident have detectable concentrations slightly above reporting limits but overall, significantly lower concentrations than those collected at the Oakland Maintenance Center (OMC), the Ground Run-up Enclosure (GRE), and the Aircraft Rescue and Firefighting (ARFF) building areas.

Perfluorooctanesulfonate (PFOS) was detected in one soil sample at the ARFF at a maximum concentration of 510 ug/kg which exceeds the Regional Water Board's Environmental Screening Level (ESL) of 51 ug/kg.

Hexafluoropropylene oxide dimer acid (GenX) was detected in soil samples collected from the ARFF, GRE, and OMC areas with a maximum concentration of 23,000 ug/kg.

Several PFAS compounds were detected in groundwater samples collected from all four sampled areas. The highest concentrations of PFAS detected in groundwater were reported from samples collected from the ARFF area. The maximum groundwater concentration of PFOS and perfluorooctanoate (PFOA) were 170,000 nanograms per

liter (ng/L) and 4,100 ng/L, respectively. These concentrations exceed the ESLs of 6.5 ng/L for PFOS and 5.1 ng/L for PFOA.

The Completion Report does not discuss PFOS or PFOA concentrations in groundwater with respect to PFOS and PFOA ESLs or Notification Levels. The sampling results indicate that concentrations of PFOS and PFOA at all four sampled areas at OIA exceeded their respective ESLs for protection of aquatic habitat and human health.

***Port Recommendations from the Completion Report:*** The Port recommended additional work in the Completion Report. Water Board staff concur with those recommendations and they are itemized as requirements 1 to 4 in the new Water Code Section 13267 Technical Report Requirements section below.

### **Water Code Section 13267 Technical Report Requirement**

The Port is required to submit a work plan to conduct additional soil and groundwater investigations to define the extent of PFAS contamination at the site and a subsequent investigation results report:

#### **An investigation work plan containing the following shall be submitted by September 30, 2021:**

1. Evaluate the storm drain and sanitary sewer lines in the Runway 12-30, OMC, GRE, and ARFF sites as potential preferential pathways for groundwater PFAS transport;
2. Investigate the Building M104 and Fire-Related Incident Taxiway W sites that were not included as part of the preliminary investigation because they were surrounded by impervious surfaces;
3. Investigate six additional areas where AFFF was likely used or stored historically that were identified after the Work Plan was implemented including: 1) PFAS storage tank and fire suppression system at Hangar 10 North Field; 2) fire suppression systems at Swissport Fueling; 3) fire suppression systems at Hangar 4 North Field; 4) Uniform Prime/Runway 12-30 emergency response incident; 5) Building M911 accidental release of AFFF; and 6) historical firefighting training area at the northern end of Runway 15-33 at North Field;
4. Develop conceptual site models (CSMs) for the areas enumerated above;
5. Soil and groundwater sampling in areas with impervious surfaces which were not investigated during the preliminary phase of the investigation including Building M104 and Fire-Related Incident Taxiway W sites;
6. Storm drain sediment sampling and stormwater sampling in all areas where PFAS was used, stored, released, and detected to evaluate if runoff from PFAS-impacted surficial soil or PFAS-impacted paved areas are impacting site wetlands or surface water at OIA;

7. A Sampling and Analysis Plan to be used for the groundwater, soil, sediment, and stormwater sampling. The samples shall be analyzed by EPA Test Methods 537 and 537.1 for PFAS, including GenX;
8. Site maps showing the locations of the existing and proposed additional groundwater, soil, sediment, and stormwater samples; and
9. An implementation schedule.

**An investigation results report containing the following information shall be submitted by December 31, 2021:**

1. Summary of site investigation results;
2. Lateral and vertical extent of soil and groundwater contamination with PFAS at each site;
3. Tabulated, groundwater, soil, sediment, and surface water sampling analytical results;
4. Groundwater elevation contour maps and contaminated soil/groundwater iso-concentration maps for each site;
5. CSMs that can be used to evaluate the transport and migration of PFAS and the potential impacts of PFAS-contaminated soil, groundwater, surface water and/or sediments to human and/or ecological receptors at each site;
6. A Tier 1 risk assessment report for human health and aquatic habitat using the Regional Water Board's PFAS ESLs or any other applicable screening levels that are available at the time of the investigation; and
7. Recommendations for: 1) conducting additional PFAS investigations if site characterization is still lacking; 2) moving the case forward towards soil and/or groundwater remediation, if needed; 3) proposed monitoring; and/or case closure.

**Basis for Requirement**

The information required to be collected in this work plan and presented in the results report is needed to define the magnitude of the PFAS releases and any immediate threats they pose to human health or the environment, including water quality. We are directing this letter to the Port because the Port is an existing or suspected discharger for the OIA.

This requirement for work plans and reports is made pursuant to Water Code Section 13267, which allows the Regional Water Board to require technical or monitoring program reports from any person who has discharged, discharges, proposes to

discharge, or is suspected of discharging waste that could affect water quality. The attachment provides additional information about Section 13267 requirements. Any extension in the above deadline must be confirmed in writing by Water Board staff.

### **Report Submittal Requirement**

The Port is required to submit all documents in electronic format to the State Water Resources Control Board's GeoTracker database, pursuant to the California Code of Regulations (Title 23, Section 3890, et.seq.). Please note that this requirement includes all analytical data, monitoring well information (latitudes, longitudes, elevations, and water depth), site maps, and boring logs.

For guidance on submitting documents to GeoTracker please use this link:  
[https://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](https://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

If you have any questions, please contact Max Shahbazian of my staff at (510) 622-4824 by e-mail [[max.shahbazian@waterboards.ca.gov](mailto:max.shahbazian@waterboards.ca.gov)].

Sincerely,

*Terry Seward*

For:  
Michael M. Montgomery  
Executive Officer

Attachment:

Fact Sheet – Requirements for Submitting Technical Report under Section 13267 of the California Water Code

cc with attachments (via email):

Ms. Colleen Liang ([cliang@portoakland.com](mailto:cliang@portoakland.com)), Port Environmental Supervisor

Ms. Michele Heffes ([mheffes@portoakland.com](mailto:mheffes@portoakland.com)), Port Attorney

Mr. Richard Sinkoff ([rsinkoff@portoakland.com](mailto:rsinkoff@portoakland.com)), Port Environmental Director

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## San Francisco Bay Regional Water Quality Control Board

### Fact Sheet – Requirements for Submitting Technical Reports Under Section 13267 of the California Water Code (revised March 2014)

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#### **What does it mean when the Regional Water Board requires a technical report?**

Section 13267<sup>1</sup> of the California Water Code provides that "...the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged or discharging, or who proposes to discharge waste...that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires."

#### **This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?**

The requirement for a technical report is a tool the Regional Water Board uses to investigate water quality issues or problems. The information provided can be used by the Regional Water Board to clarify whether a given party has responsibility.

#### **Are there limits to what the Regional Water Board can ask for?**

Yes. The information required must relate to an actual or suspected or proposed discharge of waste (including discharges of waste where the initial discharge occurred many years ago), and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The Regional Water Board is required to explain the reasons for its requirement.

#### **What if I can provide the information, but not by the date specified?**

A time extension may be given for good cause. Your request should be promptly submitted in writing, giving reasons.

#### **Are there penalties if I don't comply?**

Depending on the situation, the Regional Water Board can impose a fine of up to \$5,000 per day, and a court can impose fines of up to \$25,000 per day as well as criminal penalties. A person who submits false information or fails to comply with a requirement to submit a technical report may be found guilty of a misdemeanor. For some reports, submission of false information may be a felony.

#### **Do I have to use a consultant or attorney to comply?**

There is no legal requirement for this, but as a practical matter, in most cases the specialized nature of the information required makes use of a consultant and/or attorney advisable.

#### **What if I disagree with the 13267 requirements and the Regional Water Board staff will not change the requirement and/or date to comply?**

You may ask that the Regional Water Board reconsider the requirement, and/or submit a petition to the State Water Resources Control Board. See California Water Code sections 13320 and 13321 for details. A request for reconsideration to the Regional Water Board does not affect the 30-day deadline within which to file a petition to the State Water Resources Control Board.

#### **If I have more questions, whom do I ask?**

Requirements for technical reports include the name, telephone number, and email address of the Regional Water Board staff contact.

<sup>1</sup> All code sections referenced herein can be found by going to the California Legislative Code Section search at:  
<http://leginfo.legislature.ca.gov/faces/codes.xhtml>