

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER R2-2022-0009

**ADOPTION OF RISK MITIGATION AND MANAGEMENT REQUIREMENTS for:
THE CLOROX COMPANY AND SWAC HOLDINGS**

For the property located at:

**850 42ND AVENUE
OAKLAND
ALAMEDA COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Water Board) finds that:

1. Site Location and History

The former Clorox Company Plant facility is located at 850 42nd Avenue, off High Street, in a primarily commercial/industrial area of Oakland, Alameda County (the Property). The Property is bounded on the southwest by the Union Pacific railroad tracks and Interstate 880, on the northwest by Highway 185, and on the northeast and southeast by commercial/industrial uses.

The Property consists of a single-story building and a two-story building connected by a breezeway. The Clorox Company (Clorox) owned and operated a bleach manufacturing facility at the Property from 1919 to 1992. The single-story building housed the bleach production facility, and the two-story building contained storage and office space. Liquid bleach was produced until 1981 and dry bleach was produced until 1992, when all production ceased. Elemental mercury was used in the liquid bleach manufacturing process in the one-story building from 1919 to 1957. In 2000, Clorox sold the property to a third-party, which sold the property in 2003 to the current property owner, SWAC Holdings. The buildings have since been partitioned into various commercial units, including art studios, storage, upholstery warehouse, and woodworking.

Clorox's historical use of mercury at the Property during its bleach manufacturing operations resulted in discharges of mercury to the environment, causing impacts to soil, soil vapor, groundwater, and indoor air throughout the buildings.

2. Named Dischargers

Clorox is named as a discharger because it owned the Property and operated a bleach manufacturing facility that discharged elemental mercury to the environment, affecting soil, soil vapor/indoor air, and groundwater. Clorox has knowledge of the discharge and has the ability to control the discharge(s).

SWAC Holdings is named as a discharger because it is the current owner of the Property, has knowledge of the discharge and has the legal ability to control the discharge(s).

3. Regulatory and Remedial Actions Taken

The Regional Water Board began regulating the Property in the 1980s and issued site cleanup requirements in 1986 and 1995. Remedial actions taken at the Property have included soil removal and treatment and removal and disposal of a portion of the mercury-impacted building slab from the one-story building in 1995.

Groundwater extraction and treatment was performed from 1988 to 1997.

Groundwater monitoring has been ongoing at the Property since the 1990s. In 2019, the Regional Water Board issued a requirement for the testing of indoor air, which was delayed due to the COVID pandemic and a potential sale of the building. Clorox submitted indoor air data to the Regional Water Board in September 2021. Since that time, Clorox has conducted additional investigation, mitigation, and monitoring. A report is necessary to document these activities and the associated results.

4. Proposition 65 Notice

The September 2021 indoor air data showed that mercury concentrations in several areas of the single-story building exceeded the acute reference exposure level (REL) of 0.6 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for mercury, published by the Office of Environmental Health Hazard Assessment (OEHHA). In response to these data, the Regional Water Board issued a Proposition 65 notice, as required by Health and Safety Code section 25180.7, notifying Alameda County Public Health Department of the mercury discharge.

5. Risk Mitigation and Management Measures Taken

The concentrations of mercury observed in the indoor air indicate that mercury has volatilized and threatens the health and safety of the building occupants. Since November 2021, Clorox has installed at least 23 air filters in several units throughout the buildings as an interim mitigation measure. In addition, exhaust fans have been installed and passive vents are being converted to active vents.

6. Indoor Air Contamination

Despite implementation of initial interim mitigation measures since November 2021, indoor air sampling within the buildings on the Property has continued to show that mercury concentrations exceed both the Regional Water Board's Environmental Screening Level (ESL) for commercial/industrial use of $0.13 \mu\text{g}/\text{m}^3$ and the OEHHA acute REL of $0.6 \mu\text{g}/\text{m}^3$. The ESL is protective of repeated long-term exposure scenarios (over 25 years) while the acute REL is protective of intermittent 1-hour exposure scenarios.

7. Indoor Air Risk

A noncancer hazard quotient (HQ) signals whether chronic health effects are likely from repeated long-term exposures to one chemical. If there are exposures to multiple chemicals, the HQ for each chemical is added up to calculate a hazard

index (HI). The Regional Water Board has set its commercial/industrial ESL for mercury at an HQ of 1 and considers human health risks from indoor air exposure to non-carcinogens to be unacceptable when the HQ and/or HI exceeds 1. When concentrations also exceed the OEHHA acute REL there is a potential for adverse health effects from intermittent one-hour exposures. Even after initial risk mitigation and management measures were taken at the Property, concentrations of mercury in indoor air have continued to be detected at levels that exceed both the ESL and acute REL. Additional risk mitigation and management measures are necessary to reduce the building occupants' unacceptable indoor air exposures.

8. Scope of Order

This Order requires 1) submittal of a report documenting sampling, monitoring, and mitigation measures conducted to date, 2) development and submittal of a risk mitigation and management measures plan to reduce mercury vapors in indoor air to acceptable levels, 3) implementation of the plan, and 4) monitoring and reporting on mitigation measures for indoor air to ensure mitigation goals have been achieved. Investigation and remediation of discharges of mercury and other contaminants to soil and groundwater from Clorox's former operations are outside the scope of this Order and are being implemented through other means.

9. Basis for Order

Water Code section 13304 authorizes the Regional Water Board to issue orders requiring a discharger to clean up and abate the effects of waste where the discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance. As discussed above, pollution and nuisance conditions are present here. Water Code section 13304.2 authorizes the Regional Water Board to require a discharger conducting cleanup, abatement, or other remedial action under 13304 to assess the human health risks caused or created by the discharge. Water Code section 13267 authorizes the Regional Water Board to issue orders requiring a discharger to submit technical or monitoring program reports where the discharger has discharged, discharges, or who is suspected of having discharged or discharging waste that could affect the quality of water, as is the case here. The burden of preparing the investigative report and monitoring reports required by this Order, including costs, bears a reasonable relationship to the need for the report and the benefits to be obtained, namely to ensure that the scope of the indoor air contamination is identified, that mitigation measures are implemented correctly, that mercury levels in indoor air decrease, and that human health is protected. The cost of reporting is minor compared to the benefits to be achieved from receiving the reports. Section 13267 does not require a cost-benefit analysis. *Sweeney v. California Regional Water Quality Control Bd.* (Cal. Ct. App. 2021) 61 Cal.App.5th 1093, 1115.

Additional evidence for requiring the reports is contained in the Regional Water Board file for this case.

10. Antidegradation Policy

State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge. It establishes the policy of the state that "the disposal of wastes into the waters of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State and shall be controlled so as to promote the peace, health, safety and welfare of the people of the State." This order and its requirements are consistent with Resolution No. 68-16 because they promote the health and safety of the occupants of the Site and do not authorize further discharges into waters of the state.

11. State Water Board Resolution No. 92-49

State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" applies to all investigations and cleanup and abatement activities of all types of discharges. It authorizes the Regional Water Boards to set cleanup levels "consistent with appropriate levels set by the Regional Water Board for analogous discharges that involve similar wastes," to require health and safety plans, and to act quickly in emergency situations, such as this one, "involving acute pollution or contamination." State Water Board Resolution No. 92-49 anticipates that the Regional Water Board's oversight of a cleanup site could involve mitigation or remediation of vapor risks.

12. Basis for Indoor Air Risk Management Level

The commercial/industrial indoor air ESL for mercury (Mercury ESL) is the indoor air risk management level unless an alternative level is approved by the Executive Officer. This level will trigger risk management and mitigation actions. The basis for selecting the Mercury ESL as the indoor air risk management level includes the following:

- The Mercury ESL is set at a target HI of 1, following United States Environmental Protection Agency (US EPA) guidance. Specifically, the US EPA [Risk Assessment Guidance for Superfund: Volume I Human Health Evaluation Manual, Part D](#) states that remediation goals are generally set at an HI of 1 or less to be protective of potential non-cancer effects.
- The Mercury ESL uses toxicity criteria required by the [Toxicity Criteria for Human Health Risk Assessment Regulation](#) approved by the Office of Administrative Law and filed with the Secretary of State on September 4, 2018.
- The Mercury ESL is based on default commercial/industrial exposure parameters recommended by US EPA.

13. Cost Recovery

Pursuant to Water Code section 13304, the discharger is hereby notified that the Regional Water Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Water Board to investigate unauthorized

discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.

14. California Environmental Quality Act (CEQA)

This action is statutorily exempt under California Code of Regulations, Title 14, Section 15269, because it requires the discharger to take prompt action to mitigate a public health emergency.

15. Notification

The Regional Water Board has notified the dischargers of its intent under Water Code section 13304 to prescribe risk management and mitigation requirements for the discharge and has provided them with opportunity to submit their written comments.

IT IS HEREBY ORDERED, pursuant to sections 13304, 13304.2, and 13267 of the Water Code, that the dischargers (or its agents, successors, or assigns) shall clean up and abate the effects described in the above findings as follows:

A. TASKS

1. Sampling and Interim Mitigation Report

COMPLIANCE DATE: March 18, 2022

The dischargers shall submit a technical report acceptable to the Executive Officer documenting the indoor air and building material sampling and mitigation measures performed since initiated in November 2021. The report must include the following elements:

- Indoor air sampling, x-ray fluorescence, and wipe sampling methods and results;
- Mitigation measures implemented;
- Figures showing locations of samples, portable filters, and any other mitigation measures (i.e., fans, vents).

2. Risk Mitigation and Management Plan (RMMP)

COMPLIANCE DATE: March 11, 2022

The dischargers shall submit an appropriate RMMP acceptable to the Executive Officer to reduce concentrations of mercury in indoor air throughout the buildings on the Property to the indoor air risk management level. In accordance with Finding 12, the Mercury ESL of 0.13 $\mu\text{g}/\text{m}^3$ is the indoor air risk management level unless an alternative is approved by the Executive Officer. The Mercury ESL is protective of repeated long-term exposure scenarios (over 25 years). The RMMP must also propose a program to monitor indoor air, and any other necessary media, to demonstrate the effectiveness of mitigation measures at controlling mercury concentrations in indoor air. At a minimum, the RMMP must:

- Identify mitigation measures that will reduce mercury concentrations in indoor air to the indoor risk management level;
- Identify contingent actions to be taken should the mitigation measures not achieve the indoor air risk management level within two weeks of implementation;
- Provide the design and justification for the mitigation measure(s)
- Include a schedule for rapid implementation of risk mitigation measures;
- Include a monitoring and reporting program that includes sampling objectives, methods, locations, frequencies, data interpretation process, and reporting schedule with reports to be submitted in compliance with Task 4;
- Include a plan to communicate with building tenants on the progress, implementation, and monitoring of mitigation measures and mercury concentrations in indoor air.

3. Implement Risk Mitigation and Management Plan

COMPLIANCE DATE: Within two weeks of approval of Risk Mitigation and Management Plan by the Executive Officer.

Implement the RMMP as approved by the Executive Officer.

4. Implement Monitoring and Reporting Program

COMPLIANCE DATE: In accordance with the monitoring and reporting program in the RMMP, as approved or as may be amended by the Executive Officer

Submit technical reports acceptable to the Executive Officer documenting the implementation of mitigation measures and monitoring of indoor air (and any other necessary media) to demonstrate the effectiveness of mitigation measures at controlling mercury concentrations in indoor air. At a minimum, the reports must include the following elements:

- Indoor air sampling results for the reporting period;
- Evaluation of risk mitigation and management activities in achieving mitigation goals;
- Additional specific actions to be taken within specified timeframes in portions of the Property where mitigation goals have not been met to reduce indoor air concentrations.

5. Updates, Revisions, Amendments to Risk Mitigation and Management Plan:

COMPLIANCE DATE: As required by the Executive Officer

The dischargers shall submit an appropriate update, revision, or amendment to the RMMP acceptable to the Executive Officer. This report

will propose additional mitigation measures to be implemented should they be required to reduce concentrations of mercury in indoor air to levels acceptable to the Executive Officer.

B. PROVISIONS

1. Good Operation and Maintenance:

The dischargers shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

2. Cost Recovery:

The dischargers shall be liable, pursuant to Water Code section 13304, to the Regional Water Board for all reasonable costs actually incurred by the Regional Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order. If the Property addressed by this Order is enrolled in a State Water Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods used in that program shall be addressed using the dispute resolution procedures for that program.

3. Contractor / Consultant Qualifications:

All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.

4. GeoTracker Submittals:

Electronic copies of all correspondence, technical reports, and other documents pertaining to compliance with this order shall be uploaded to the State Water Board's GeoTracker database within five business days after submittal to the Regional Water Board. [Guidance for electronic information submittal](#) is available at: www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal.

I, Thomas Mumley, Interim Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 8, 2022.



Thomas Mumley
Interim Executive Officer

Compliance Notice: Failure to comply with the requirements of this Order may subject the dischargers to enforcement action, including but not limited to imposition of administrative civil liability under Water Code sections 13268 or 13350, or referral to the Attorney General for injunctive relief or civil or criminal liability.