UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 Hawthorne Street
San Francisco, CA 94105

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MEMORANDUM

SUBJECT: RCRA Consent Agreement and Final Order Pursuant to 40 C.F.R. §§ 22.13 and 22.18, In the matter of Apple, Inc.

FROM: Christopher Rollins, Environmental Scientist
Enforcement and Compliance Assurance Division

Tessa Allen, Assistant Regional Counsel
Office of Regional Counsel

THROUGH: Kaoru Morimoto, Manager
Air, Waste & Chemicals Branch
Enforcement and Compliance Assurance Division

Suzanne Andrews, Regional Counsel
Office of Regional Counsel

TO: Amy Miller-Bowen, Director
Enforcement and Compliance Assurance Division

I. INTRODUCTION

Enclosed for your review and signature is a Consent Agreement and Final Order pursuant to 40 C.F.R. §§ 22.13 and 22.18 ("CA/FO"), issued under Section 3008(a)(1) of the Resource Conservation and Recovery Act ("RCRA"), as amended, 42 U.S.C. § 6928(a), relating to Apple, Inc. ("Respondent"). The settlement requires Respondent to pay a penalty of $261,283.

The CA/FO simultaneously commences and concludes the Agency's enforcement action against Respondent pursuant to 40 C.F.R. § 22.13(b) and is consistent with the June 2003 RCRA Civil Penalty Policy (the "Policy"), as amended by Memorandum from David M. Uhlmann, Assistant Administrator, Office of Enforcement and Compliance Assurance, EPA, to Regional

Administrators, EPA re: Amendments to the EPA Civil Penalty Policies to Account for Inflation (January 10, 2024) ("Uhlmann Memorandum").

II. BACKGROUND

Respondent is a technology company that has operated a facility located at 3250 Scott Blvd, in Santa Clara, California (the "Facility"), since 2016. The Facility is a Semiconductor Fabrication Research and Development facility, that operates 24 hours a day, 5 days a week. The Facility generates primarily RCRA organic and corrosive hazardous wastes from various R&D operations on site. Based on the volume generated, the Respondent is a large quantity generator of hazardous wastes under RCRA.

Based on the findings the EPA made during its August 17-18, 2023, and January 16, 2024, inspections of the Facility, and additional information submitted by the Respondent after the inspections, the EPA determined that Respondent had violated certain provisions of RCRA, identified below. The EPA issued a "Notice of Potential Enforcement" letter to Respondent on June 26, 2025, and subsequently initiated pre-filing settlement discussions, which resulted in the proposed CA/FO enclosed for approval with this memorandum.

The violations primarily relate to Respondent's management of spent solvent wastes. Solvents are used in various R&D activities at the Facility, and spent solvents flow from each process tool, through a solvent waste lift station that collects these consolidated waste streams and pumps them to a 1,700 gallon tank where they are collected before being shipped offsite.

III. VIOLATIONS ALLEGED IN THE CA/FO

Count I - Failure to Perform an Accurate Waste Determination

Under 22 C.C.R. § 66262.11[40 C.F.R. § 262.11], a person who generates a waste shall determine if that waste is a hazardous waste at the point of generation, including whether the waste is listed as a hazardous waste or bears certain characteristics of hazardous waste.

The EPA's inspection and review of the Facility records indicated that Respondent failed to make a proper waste determination for the following wastes:

Solvent Waste
Apple's production process involves a solvent waste stream where solvent waste is collected from individual tools, and consolidated in a vessel referred to as the "solvent waste lift station," before being pumped to the 1,700 gallon tank. Respondent failed to characterize the individual solvent waste streams at the point of generation for each, that is, at the point each solvent waste stream exited process equipment and became "spent" solvent, before entering the solvent waste lift station. The Material Safety Data Sheets for the chemicals used in these

processes confirm that the spent solvent would be characteristic for ignitability (D001) and corrosivity (D002). Respondent also failed to make an accurate waste determination for the combined solvent waste stream that is consolidated in the 1,700 gallon tank. Prior to EPA's inspection, Respondent shipped waste from this tank offsite under the waste code CA-133 (California-only, Nonhazardous Waste), which was inaccurate, given the ignitable and corrosive characteristics of the individual waste streams entering the tank. Respondent has since begun applying the D001 and D002 waste codes to this waste stream.

Aluminum Etchant – Type A and Unknown Waste
EPA also observed, during the inspections, six containers of waste labeled "Aluminum Etchant Type A," and three unknown containers of waste in the Facility's Bunker Area. Respondent had not made a hazardous waste determination for these materials at the time of the inspection, but they were later determined to be hazardous waste.

Count II – Failure to Determine Compliance with Land Disposal Restrictions

Under 22 C.C.R. § 66268.7 [40 C.F.R. § 268.7] a generator of hazardous waste must determine if the waste must be treated to meet applicable treatment standards before it can be land disposed, and the generator must retain onsite a copy of all notices, certifications, waste analysis data, and other documentation for at least three years. If the waste does not meet treatment standards or if the generator chooses not to make the determination of whether its waste must be treated, the generator must send a one-time written notice to each facility receiving the waste.

During its inspection of the Facility and subsequent review of records, EPA observed that the solvent waste from the 1,700 gallon tank was being shipped offsite under the California-only waste code CA-133, and was not identified as RCRA hazardous waste. As a result, Respondent did not determine whether the waste it was shipping offsite met land disposal restriction treatment standards, it did not maintain documentation of an LDR determination in its onsite files, and it did not properly notify the receiving facility of Respondent's LDR determination for this waste stream.

The inspection team documented a total of 105 days between June 2022 and March 2024 where Respondent shipped waste offsite under the CA-133 waste code, without performing an appropriate LDR determination.

Count III – Failure to Comply with Accumulation Time Limits – Storage over 90 Days

Under 22 C.C.R. § 66270.1(c) [40 C.F.R. § 270.1(c)], owners and operators must have interim status or obtain a permit for treatment, storage, or disposal of hazardous waste. However, under 22 C.C.R. 66262.17(a) [40 C.F.R. § 262.17(a)], generators may accumulate hazardous waste on-site for up to 90 days without a permit or interim status if they meet certain conditions.

During its inspection of the Facility, the EPA observed one 5-gallon container of D002 waste with an accumulation start date of March 2, 2023, which was more than 90 days prior to the August 17, 2023 inspection.

Count IV– Failure to Determine Subpart CC Applicability and Apply Required Emission Controls

Under 22 C.C.R. § 66265.1085(b) [40 C.F.R. § 265.1085(b)] the owner or operator of a tank subject to Subpart CC shall control air pollutant emissions from each tank, and 22 C.C.R. § 66265.105(c) [40 C.F.R. § 265.1085(c)] describes the requirements for Tank Level 1 controls, including that each opening on a fixed roof be either equipped with a closure device or connected by a closed vent system that is vented to a control device.

During the inspections and subsequent document review, EPA determined that the solvent waste lift station tank, which received solvent waste from the Facility's R&D processes, was hard piped to the Facility's general exhaust system, which vented to the atmosphere with no control device. Because of the solvent content of the waste entering the solvent waste lift station, the enforcement team determined that the average volatile organic (VO) concentration of the solvent waste entering the tank meant that Tank Level 1 controls should have been applied to the solvent waste lift station tank, and a control device should have been employed to minimize the release of solvent exhaust to the atmosphere.

Respondent took the position during the inspection and in negotiations that the solvent waste lift station was not a "tank" within the meaning of the regulations because it was not intended to store waste for long periods of time, and thus wasn't subject to air emission controls for tanks. However, the EPA team determined based on the regulatory definition of "tank" and product specifications that the unit did in fact meet the definition of a tank as a "stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support." Importantly, there is no minimum retention time required under the definition of tank, and design specifications for the unit confirm that it contains a 67-gallon tank where spent solvent wastes from the tool benches accumulate until a pump kicks on, which is programmed to occur when the tank reaches approximately 35% capacity, or 23 gallons. Documents from the Facility dating from 2021 describe the unit as a tank subject to Subpart CC air emission controls, so it is unclear why Respondent later took the position that the Solvent Waste Lift Station is not a tank. Respondent has, nonetheless, agreed to manage the unit as a tank, including installing a closure device and otherwise complying with Subpart CC air emission control requirements moving forward.

Count V– Failure to Label and Date Hazardous Waste Containers

Under 22 C.C.R. § 66270.1 [40 C.F.R. §270.1] a RCRA permit is required for the treatment, storage, or disposal of hazardous waste, but 22 C.C.R. § 66262.17(a)(5)(A) [40 C.F.R. § 262.17(a)(5)(i)] exempts generators from the permit requirement provided they meet certain conditions, including that hazardous waste containers be labeled as to their contents and with dates clearly visible for inspection.

During the August 17, 2023 inspection EPA documented two 5-gallon containers of corrosive (D002) waste that were not labeled or dated, and eleven 5-gallon containers of corrosive (D002) waste with labels that were not clearly visible for inspection. In addition, during the January 16, 2024 inspection, EPA documented three 5-gallon containers of corrosive (D002) waste and eight 5-gallon containers of ignitable (D001) waste with labels that were not clearly visible for inspection.

Count VI– Open Container Violation

Under 22 C.C.R. § 66265.173(a) [40 C.F.R.§ 265.173(a)], containers holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste. During EPA's August 18, 2023 inspection, inspectors observed one 55-gallon container of D002 waste that was being stored with the bung cap off in order to prevent too much pressure from building up while in storage.

Count VII– Failure to Perform and Document Daily Tank Inspections

Under 22 C.C.R. § 66265.195 [40 C.F.R. § 265.195], the owner or operator is required to inspect tank systems at least once each operating day and document in the operating record of the facility an inspection of specific items enumerated in the regulation. The term "operating day" is described in EPA guidance to include all days when hazardous waste is being stored or treated in tanks, including weekend and holidays.

During the inspections and subsequent document review, EPA determined that Respondent failed to perform daily inspections of its solvent waste lift station tank, and while it performed inspections of its 1,700 gallon solvent waste tank during business days, it was not performing such inspections on weekends or holidays when hazardous waste was nonetheless being stored in the tank.

IV. PENALTY CALCULATION

The penalty for each count is based on the Policy. Under the Policy, a gravity-based penalty component is determined through consideration of two factors: the potential for harm and the extent of deviation from a statutory or regulatory requirement. Policy, p. 2. Both the potential for harm and the extent of deviation in a particular count are characterized as major, moderate, or minor, according to standards set forth in the Policy. *Id.*, pp. 12 – 18.

The gravity-based component is selected from within the range of the appropriate cell. *Id.*, p. 3. Selection of the exact amount within the cell is subject to discretion to adapt the penalty amount to the gravity of the violation and its surrounding circumstances. *Id.*, p. 19. All relevant factors may be considered, including the seriousness of the violation relative to other violations falling within the same matrix cell, and the size and sophistication of the violator. *Id.*

The Policy also provides for multi-day penalties for continuing violations. *Id.*, p. 2. After the gravity-based penalty is calculated, including any multi-day component, it may be adjusted upward or downward to reflect the particular circumstances surrounding the violation, such as good faith efforts to comply/lack of good faith, degree of willfulness and/or negligence, history of noncompliance, ability to pay, environmental projects, and other unique factors. *Id.*, p. 3. Application of these Policy considerations to each of the alleged violations is set forth below.

In addition, the Policy mandates the recapture of any significant economic benefit of noncompliance that accrues to a violator. An economic benefit component should be calculated and added to the gravity-based penalty component when a violation results in significant economic benefit to the violator. *Id.*, p. 28. The Policy allows enforcement teams to forgo seeking economic benefit where the economic benefit of noncompliance is "relatively insignificant," and provides certain dollar thresholds at which economic benefit should be considered insignificant in relation to the gravity-based penalty. An economic benefit that is calculated to be under $3,000 can be waived.

The proposed settlement penalty amount is $261,283. Calculation of the gravity-based and multiday penalties for each count is described in the chart below.

Gravity and Multiday Penalty Calculation

Description	Potential for Harm	Extent of Deviation	Gravity Based Penalty	Multiday	Justification
Count 1: Failure to perform a waste determination	Major	Moderate	$31,651	-	The enforcement team grouped several instances of noncompliance into a single count, and characterized it as a **Major/Moderate**. This was based on the fact failure to perform a waste determination significantly undermines the RCRA program because if waste is not appropriately classified as hazardous at the outset, other violations of RCRA necessarily flow from this initial failure. The extent of deviation was deemed moderate because Respondent failed to appropriately characterize the solvent waste stream and a limited number of containers of other hazardous waste, Respondent did appear to be appropriately characterizing and handling most waste streams at the Facility. Enforcement staff selected a penalty from the bottom of the relevant range to account for the fact that while the solvent waste stream was not accurately characterized as RCRA hazardous waste, it was nonetheless sent to a facility that was authorized to treat both RCRA and CA-only hazardous waste.
Count 2: Failure to perform LDR determinations and notifications	Moderate	Moderate	$10,550	$82,680	The enforcement team characterized this as **Moderate/Moderate** because the waste was shipped offsite without an appropriate hazardous waste code or notification to the receiving facility. As a result, it is unknown whether the receiving facility appropriately handled and disposed of the waste. Nonetheless, although not appropriately characterized as to any underlying hazardous constituents, the waste was sent to a facility authorized to handle RCRA waste (World Oil Recycling), and Respondent purports to have confirmed that the waste would have been handled the same way had it been accompanied by an appropriate LDR notification. The gravity-based penalty was selected from the bottom of the applicable range, and the multi-day penalty was selected from very near the bottom of the applicable range, recognizing that though there were repeated failures to follow LDR requirements and thus harm to the RCRA program, the actual environmental harm from the violation may have been limited. The multiday penalty of $795/day was assessed for 104 days of violation, corresponding to the number of days Respondent shipped solvent waste offsite without appropriate LDR determinations/notifications.
Count 3: Storage over 90 days	Minor	Moderate	$3,164		The enforcement team characterized this as **Minor/Moderate** because there was only a small amount of waste in the container that had been stored beyond 90 days, and the container was in good conditions, so the potential for harm was limited. The waste was stored significantly over 90 days, however, so the extent of deviation was moderate. The penalty was selected from the top of the applicable range given the prolonged storage time.
Count 4: Failure to determine Subpart CC	Moderate	Moderate	$10,550	$142,305	The enforcement team characterized this as **Moderate/Moderate** because the potential ongoing release of solvent waste vapors to the environment via the uncontrolled general exhaust has significant environmental and public health implications, though small tank size

Applicability and Apply Emission Controls					and purportedly low concentration of solvents handled in the tank may mitigate these concerns somewhat. The area around the Facility is mixed used commercial/residential, so there are potential residential receptors. The solvent waste lift station tank did appear to be the only unit that was not appropriately classified and controlled under Subpart CC, however, with the originating and receiving tanks on either side of it in the process flow being appropriately classified and subject to emission controls. Based on these factors, the gravity-based penalty was selected from the bottom of the applicable range. A multiday penalty was assessed to account for the gravity of the ongoing potential release. Though Facility documents indicate that the solvent waste lift station tank was considered subject to Subpart CC controls back in 2021, it appeared that the controls and inspections required for air emissions from tanks had not been applied for several years. The case team assessed a multiday penalty from near the bottom of the range ($795), for a total of 179 days, consistent with the Policy which states that multiday penalties for Mod/Mod violations are presumed appropriate for days 2-180.
Count 5: Failure to label and date containers	Minor	Minor	$1,054		The enforcement team characterized this as **Minor/Minor** because the containers that were not labeled or dated contained a small amount of waste and were otherwise being appropriately managed. The containers that were labeled but were stacked in a manner that their accumulation dates were not visible for inspection were also being otherwise managed consistent with RCRA. The extent of deviation was minor because it was a small fraction of the total waste at the Facility that was not labeled appropriately or visible for inspection. The penalty amount was selected from the top of the applicable range, recognizing that there were multiple containers at issue.
Count 6: Open container violation	Minor	Minor	$632		The enforcement team characterized this as **Minor/Minor** because though the 55-gallon container was deliberately left open to vent, there was only a small amount of waste in the container, and other containers at the facility were appropriately closed in storage. The penalty amount was set at the midpoint of the applicable range.
Count 7: Failure to perform daily tank inspections	Minor	Moderate	$3,164		The enforcement team characterized this as **Minor/Moderate** because Respondent was conducting the majority of required inspections for the larger 1,700-gallon solvent waste tank (excepting nights and weekends) and had other measures in place to alert operators in the event of a spill. Nonetheless, Respondent was not conducting any inspections of the smaller, 67-gallon solvent waste lift station tank. The penalty was selected from the top of the applicable range.
			Unadjusted Total:	**$285,750**	

Penalty Adjustment Factors

The enforcement team applied one adjustment factor to the calculation of the gravity and multiday penalty components. Specifically, the team applied a 10% downward adjustment for cooperation. Apple worked cooperatively and promptly with EPA enforcement staff to resolve all violations. The downward adjustment of 10% applied to gravity-based and multiday penalties results in a reduction of **$28,575**.

Economic Benefit

The enforcement team calculated the economic benefit of noncompliance for Count 4, based on the expected cost to install a control device on the solvent exhaust piping from the solvent waste lift station tank. Using an estimated $10,000 one-time capital investment cost, the total economic benefit was estimated to be **$4,108**. Adding economic benefit to the total calculated penalty results in a penalty of **$261,283.**

V. CONDITIONS OF SETTLEMENT

Apple resolved all violations to EPA's satisfaction prior to settlement, so no compliance tasks were included in the CA/FO.

VI. OTHER ISSUES

Nationally Significant Issues: None of the issues identified in the February 1, 2017 "Revised Consolidated Procedures for Regional and Headquarters Coordination on Regulatory Enforcement Cases Involving Nationally Significant Issues (NSIs)" are applicable in this case.

Administrative/Judicial: This consent agreement will be filed as an administrative action instead of a judicial action because the penalty action is expected to be substantial enough to serve as a deterrent against future noncompliance.

VII. RECOMMENDATION

The proposed settlement discussed above is in conformance with the 2003 RCRA Civil Penalty Policy, as amended on May 1, 2020, and updated by the Uhlmann Memorandum. The EPA believes that the proposed payment constitutes an appropriate settlement for Respondent's violations. The settlement will require payment of an appropriate monetary penalty for violations at the Facility of $261,283. We recommend that you sign the enclosed CA/FO.