

Covered Source Permit No. 0564-01-C

Application No.: Application for a significant modification no. 0564-03

Organization Name: Hakuyosha International, Inc.

Facility: Hakuyosha International, Inc.

Equipment Location: 730 Sheridan Street
Honolulu, Hawaii 96814

UTM Zone 4: 620,038 m E; 2,355,361 m N
Horizontal datum: NAD-83

TMK 1-2-3-14-11

Responsible Official: Mr. Carl Patton
Plant Manager
730 Sheridan Street
Honolulu, Hawaii 96814
808-955-6116

Contact: Mr. Carl Patton

SIC Code: 7216 Drycleaning Plants, Except Rug Cleaning

Proposed Project: Hakuyosha International, Inc. submitted an application to add a 50 pound capacity petroleum solvent recovery dryer to the two existing 50 lb capacity dryers at the facility. Following the modification the facility will have three (3) 50 pound capacity petroleum solvent recovery dryers.

The facility also has two existing 40 pound capacity petroleum solvent washers.

In addition to CSP 0564-01-C for the petroleum dry cleaning equipment Hakuyosha has the following air permits:

1. Noncovered source permit no. 0462-01-N for a 100 hp boiler; and
2. Noncovered general source permit no. 0094-NG for perchloroethylene dry cleaning operations.

Equipment:

1. Hoyt Petro-Miser Petroleum Solvent Recovery Dryer
Model PET-50
Serial no. 50-519-GE
Maximum capacity: 50 pounds

2. Hoyt Petro-Miser Petroleum Solvent Recovery Dryer
Model PET-50
Serial no. 50-707-GE
Maximum capacity: 50 pounds
3. NEW: Hoyt Petro-Miser Petroleum Solvent Recovery Dryer
Model PET-50R
Serial no. 50R-1074GE
Maximum Capacity: 50 pounds
4. J & T Petroleum Solvent Washer
Model 40
Serial no. 1024
Maximum capacity: 40 pounds
5. J & T Petroleum Solvent Washer
Model 40
Serial no. 1023
Maximum capacity: 40 pounds

Air Pollution Controls: The Hoyt dryers are equipped with refrigerated condensers for solvent recovery.

Applicable Requirements:

Applicable Hawaii Administrative Rules (HAR):

- Chapter 11-59, Ambient Air Quality Standards
- Chapter 11-60.1 Air Pollution Control
 - Subchapter 1, General Requirements
 - Subchapter 2, General Prohibitions
 - 11-60.1-31 Applicability
 - 11-60.1-32 Visible Emissions
 - 11-60.1-38 Sulfur Oxides from Fuel Combustion
 - Subchapter 5, Covered Sources
 - Subchapter 6, Fees for Covered Sources, Noncovered Sources, and Agricultural Burning
 - 11-60.1-111 Definitions
 - 11-60.1-112 General Fee Provisions for Covered Sources
 - 11-60.1-113 Application Fees for Covered Sources
 - 11-60.1-114 Annual Fees for Covered Sources

NSPS Applicability: The three petroleum dry cleaning machines, two petroleum washers, and the filters associated with the washers are subject to 40 CFR Part 60, Subpart JJJ – Standards of Performance for Petroleum Dry Cleaners. The subpart is applicable to petroleum dry cleaning plants with a total manufacturer's rated dryer capacity equal to or greater than 84 lbs. Following the modification Hakuyosha will have three 50 lb petroleum solvent recovery dryers for a total capacity of 150 lbs.

In-house Annual Emissions Reporting Requirements: The facility is subject to in-house annual emissions reporting requirements because potential emissions of VOC exceed the in-house reporting trigger level of 25 tons per year.

Non-Applicable Requirements:

PSD Applicability: The facility is not subject to review of PSD applicability because it is an existing minor source and the potential to emit from the facility following the proposed modification is less than 100 tons per year of each criteria pollutant.

NESHAP/MACT Applicability: There are no applicable standards for petroleum dry cleaners and washing machines under 40 CFR Part 61 and 63.

BACT Applicability: A Best Available Control Technology (BACT) analysis is required for new or modified sources which result in an increase in air emissions above significant levels as defined in HAR § 11-60.1-1. The facility is not subject to a BACT analysis because total facility emissions following the proposed modification are less than significant levels for VOC, the only pollutant emitted from the petroleum dry cleaning operation.

Compliance Assurance Monitoring Applicability: 40 CFR, Part 64 Compliance Assurance Monitoring (CAM) rule. The facility is not subject to the CAM rule since it is not a major source of emissions.

Part 51, Subpart A, Emission Inventory Reporting Requirements – Consolidated Emissions Reporting Rule: CERR determines the applicability of compliance emissions reporting on the emissions of each air pollutant from the facility.

Minimum Point Source Reporting Thresholds by Pollutant			
Pollutant	Annual Cycle type A sources	Three-year cycle type B sources	Facility Emissions ^a
	tons/year	tons/year	tons/year
SO _x	≥ 2500	≥ 100	3.80
VOC	≥ 250	≥ 100	36.24
NO _x	≥ 2500	≥ 100	1.10
CO	≥ 2500	≥1000	0.30
Pb		≥ 5	<1
PM ₁₀	≥ 250	≥ 100	0.058
PM _{2.5}	≥ 250	≥ 100	0.058
Ammonia	≥ 250	≥ 100	not anticipated

^a Detailed VOC emissions from the petroleum solvent dry cleaning operations are in the **Project Emissions** section. Emissions of SO₂, NO_x, VOC (0.03 tpy), CO, PM₁₀, and PM_{2.5} are from the permit review for the 100 hp boiler, NSP 0462-01-N.

The facility is not subject to CERR requirements.

Synthetic minor status: A synthetic minor source is a facility that is potentially major as defined in HAR § 11-60.1-1, but is made non-major through federally enforceable permit conditions. This facility is not a synthetic minor based on potential emissions less than 100 tons per year of each criteria pollutant when the equipment is operated for 8,760 hours per year.

Alternate Operating Scenarios:

The applicant is not proposing any alternate operating scenarios.

Insignificant Activities/Exemptions:

No insignificant activities or exempt equipment are identified in the application.

Project Emissions: Only VOC emissions are generated by the petroleum dry cleaning operations. The potential to emit for the petroleum dry cleaning operations at Hakuyosha are based on the following information:

1. Petroleum solvent: Chevron 325 with a VOC content of 780 grams per liter = 6.51 pounds per gallon
2. Highest reported annual consumption of Chevron 325 over the last four years: 3,080 gallons

Carl Patton states there will be an increase in the use of Chevron 325 of about 20% following the addition of the third petroleum solvent dry cleaner: $3,080 \text{ gallons} \times 20\% = 3,696 \text{ gallons}$

3. Annual operating hours: $8 \text{ hrs/day} \times 7 \text{ days/week} \times 52 \text{ weeks/year} = 2,712 \text{ hours/year}$

Carl Patton states there will be no increase in the annual operating hours following the addition of the third petroleum solvent dry cleaner.

4. Annual operating factor to determine maximum potential to emit: $8,760 \text{ hrs/yr} \div 2,712 \text{ hrs/yr} = 3.01$
5. Assume all VOC is lost to the atmosphere during dry cleaning operations.

VOC Emissions, maximum potential to emit based on operating 8,760 hours/year:

$6.51 \text{ pounds VOC/gal} \times 3,696 \text{ gal/yr} \times 3.01 = 72,423.49 \text{ lbs VOC/year} = \underline{36.21 \text{ tons VOC/year}}$

No hazardous air pollutants are indicated on the material data safety sheet for Chevron 325.

Air Quality Assessment: No ambient air quality analysis is required for the following reasons:

1. The petroleum dry cleaning operation generates only fugitive emissions of VOC.
2. There is no ambient air quality standard for VOC.

PROPOSED

Conclusion: Hakuyosha has submitted an application for a significant modification to add a 50 lb capacity petroleum solvent dry cleaner to the two existing 50 lb capacity dry cleaning machines. The facility also has two associated forty (40) pound capacity petroleum solvent washers. The calculation of potential to emit from the dry cleaning equipment conservatively assumes all VOC is lost to the atmosphere during dry cleaning operations.

Issuance of the covered source permit is recommended based on the review of the information provided by the applicant and subject to the permit conditions, thirty (30) day public comment period, and forty-five (45) day EPA review.