

STATE OF WASHINGTON
DEPARTMENT OF WASHINGTON

In the Matter of Remedial)	Enforcement Order
Action by:)	
)	
Airco Gases)	
575 Mountain Avenue)	
Murray Hill, New Jersey 07974)	
)	No. DE 93TC-S335

I.

Jurisdiction

This Order is issued pursuant to the authority of RCW 70.105D.050(1).

II.

Statement of Facts

1. Airco Gases is a Division of The BOC Group, Inc., of Murray Hill, New Jersey, which is the legal owner of the property located at 4715 Northeast 78th Street, Vancouver, Washington. Airco Gases is the operator of the facility at this location and had operated same since 1964.
2. Airco Gases property is located at 4715 Northeast 78th Street. The Airco Gases "Site", which has the same meaning as "facility", is defined in both RCW 70.105D.020(3) and WAC 173-340-200. "Facility" means any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon,

impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located." The Airco Site includes the real property owned by Airco Gases and the area where hazardous substances, emanating from the Airco property, have come to be located. The full areal extent of the ground water contamination off-site of the Airco property is not known at this time. The Remedial Investigation, as part of this Enforcement Order, will define the extent of off-site ground water contamination.

3. Airco Gases manufactures compressed gas products, including liquid nitrogen, liquid oxygen, and liquid argon. Airco Gases also stores and distributes other specialty gases, such as freon, hydrogen, acetylene, and helium.
4. Investigations conducted at the site by EA Engineering, Science, and Technology, for Airco Gases have detected the presence of volatile organic compounds (VOCs) in the ground water, dry well sediments, and/or near-surface soils. Trichloroethene (TCE), 1,1,1-trichloroethane (TCA), carbon tetrachloride, tetrachloroethene (PCE), 1,1-dichloroethene (DCE), toluene, xylenes, carbon disulfide (non-volatile inorganic compound), and trichlorofluoromethane (Freon 11) have been detected in on-site ground

water monitoring wells and/or dry well sediments. Some of the VOCs detected have been used in the past or are currently being used/stored at the Airco Gases site. A TCE parts washer was located in the production building. TCA has been used on-site to clean piping and during the construction of new equipment in the production building and was stored on-site. Several types of Freon (Freon 11, Freon 113 or TF) have been and/or are currently being used at Airco Gases. Freon 11 is reportedly used in a closed-system refrigeration process at two locations on-site and was used to clean oily residue out of the plant's distillation columns. Airco Gases also repackages Freon for redistribution resale.

5. Investigations conducted by Ecology and/or its contractors have detected the presence of VOCs in the ground water during the on-going investigation and cleanup of chromium contamination associated with the Boomsnub Corporation/Pacific Northwest Plating (Boomsnub) Site. The Boomsnub site is located east of the Airco property at 7608 N.E. 47th Avenue. The ground water monitoring wells, in which elevated VOCs were detected, are located hydraulically downgradient from the Airco property.
6. A Remedial Investigation/Feasibility Study has not been completed for the Site; however, three investigations and reports have been completed and submitted to Ecology. Phase I and Phase II Investigation Airco reports were completed in April 1992, and October 1992, respectively, by EA

Engineering, Science, and Technology. The phase III investigation was done to meet the requirements of Agreed Order No. DE 93TC-S153 which became effective March 31, 1993. The report, Phase III Soil and Groundwater Investigation Airco Gases, was submitted to Ecology in July, 1993. Ecology believes these investigations and reports provide justification for conducting the following remedial actions. These remedial actions are necessary to reduce a potential threat to human health and the environment.

III.

Ecology Determinations

1. Airco Gases is an "owner or operator" as defined at RCW 70.105D.020(6) of a "facility" as defined in RCW 70.105D.020(3).
2. The facility is known as Airco Gases and is located at 4715 Northeast 78th Street, Vancouver, Washington as shown in Exhibit A.
3. The substances found at the facility as described above are "hazardous substances" as defined at RCW 70.105D.020(5).
4. Based on the presence of these hazardous substances at the facility and all factors known to Ecology, there is a release or threatened release of hazardous substances from the facility, as defined at RCW 70.105D.020(10).
5. By letter dated December 13, 1993, Ecology notified Airco Gases of its status as a "potentially liable person" under RCW 70.105D.040 after notice and opportunity for comment.

6. Pursuant to RCW 70.105D.030(1) and 70.105D.050, Ecology may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.
7. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

IV.

Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered that Airco Gases take the following remedial actions and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein:

Airco Gases shall conduct interim actions, assume operation of the ground water VOC system, and conduct a Remedial Investigation and Feasibility Study (RI/FS). This work is specified below:

TASK 1. WORKPLANS - DRAFT AND FINAL

Prepare detailed draft Workplans which address Tasks 1A and 1B below, submit them to Ecology for review and approval. The approved plans shall be implemented in accordance with the schedule specified below. Draft Workplans are due within sixty (60) calendar days of the effective date of this Order. Upon receipt of Ecology comments, Airco shall incorporate the

comments and submit final project plans to Ecology within fifteen (15) calendar days.

TASK 1A. INTERIM ACTIONS

Develop a detailed scope and schedule for interim actions to remediate the VOC contamination of the ground water and dry wells at the Airco Site.

This shall include, but not be limited to, the following:

- a. Summary of historical and current site conditions. The current site conditions shall include a map locating all dry wells, catchment basins, ditches, and any other discharge locations. A table shall be included which presents average weekly discharge totals for each location.
- b. Treatment of the ground water.

The ground water treatment technology to be implemented by Airco Gases is not specified in this order. Airco Gases shall evaluate various technologies and propose their preferred alternative(s) in the Workplan to be submitted for review and approval by Ecology. Proposed technologies shall be effective in remediation and hydrologic containment of dense non-aqueous phase liquids (DNAPLs) and their associated/aqueous dissolved phase.
- c. Remediation of the contaminated dry wells and impacted surrounding soils which are sources contributing to ground water contamination.

- d. Investigation of potential DNAPL source areas.
- e. A Sampling and Analysis Plan including quality assurance/quality control (QA/QC) project plan and a field sampling plan.
- f. A Compliance Monitoring Plan

The draft Workplan for implementing the interim actions will be prepared in accordance with WAC 173-340-400. This plan shall include an update, as necessary, of Airco's Safety and Health Plan prepared in accordance with WAC 173-340-810 and a Sampling and Analysis Plan and an Interim Action Compliance Monitoring Plan prepared in accordance with WAC 173-340-820 and -410, respectively.

TASK 1B. REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Develop a Remedial Investigation/Feasibility Study (RI/FS) Workplan and schedule for on-site and off-site VOC characterization. This shall include but not be limited to, tasks appropriate to obtain the data needed to complete the assessment of on-site and off-site VOC contamination.

TASK 2. VOC REMOVAL SYSTEM

Assume responsibility of the VOC removal system currently located at Boomsnub Corporation/Pacific Northwest Plating, 7608 NE 47th Ave., Vancouver, Washington. This shall include:

- a. Submitting a draft plan for assuming the operation and maintenance of the air stripper and activated carbon units. This may include

continued operation at the existing location or relocation of the VOC removal systems to the Airco property. The plan shall include an implementation schedule. Within sixty (60) calendar days of the effective date of this Order, Airco shall submit to Ecology for review and comment the draft plan for assuming the operation and maintenance of the air stripper and activated carbon units. Upon receipt of Ecology's comments, Airco shall incorporate comments and submit a final plan to Ecology within fifteen (15) calendar days.

- b. Submitting a draft plan for assuming responsibility for the Southwest Air Pollution Control Authority (SWAPCA) air discharge permit. The plan shall include an implementation schedule. Within sixty (60) calendar days of the effective date of this Order, Airco shall submit to Ecology for review and comment the draft plan assuming responsibility for the SWAPCA air discharge permit. Upon receipt of Ecology comments, Airco shall incorporate the comments and submit a final plan to Ecology within fifteen (15) calendar days.
- c. Reimbursing Ecology for expenses related to design and construction of the VOC removal system.
- d. Reimbursing Ecology for expenses related to compliance monitoring for the SWAPCA permit. Airco will receive an invoice for past expenditures. Payment is due within ninety (90) days upon receipt of

itemized statement of costs.

TASK 3. IMPLEMENT INTERIM ACTION WORKPLANS

TASK 4. IMPLEMENT THE RI/FS WORKPLAN

Schedule: In accordance with the schedule in the approved final Interim Actions and RI/FS Workplans.

The above-stated tasks shall be conducted in accordance with the following schedule:

SCHEDULE

Submit detailed draft Workplans addressing Tasks 1A and 1B date.	Sixty (60) calendar days from Order effective
Prepare and submit final Workplans	Within fifteen (15) calendar days from receipt of Ecology comments.
Implement final interim action and RI/FS work plans.	In accordance with schedules in the approved work plans.
Submit draft plans for assuming the operation and maintenance of the VOC removal systems and responsibility of SWAPCA air discharge permit	Sixty (60) calender from Order effective date.
Implement final plans for operation and maintenance of the VOC removal system and SWAPCA air discharge permit.	In accordance with schedules in the approved work plans.

V.

Terms and Conditions of Order

1. Definitions

Unless otherwise specified, the definitions set forth in Chapter 70.105D RCW and Chapter 173-340 WAC shall control the meanings of the terms used in this Order.

2. Public Notice

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any respect.

3. Remedial Action Costs.

Airco Gases shall pay to Ecology costs incurred by Ecology pursuant to this Order. These costs shall include work performed by Ecology or its contractors for investigations, remedial actions, and Order preparation, oversight and administration. For work performed prior to **November 1, 1993**, the amount of \$41,581.88 less any amount previously paid pursuant to Agreed Order #DE93TC-S153 shall be paid to Ecology within 30 days of the effective date of this work. For work commencing on **November 1, 1993**, Ecology costs shall include costs of direct activities as defined in WAC 173-

340-550 (2), support costs of direct activities, and interest charges for delayed payments. Airco Gases shall pay the required amount within 90 days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general description of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs will result in interest charges.

4. Designated Project Coordinators.

The project coordinator for Ecology is:

Tina Masterson

P.O. Box 47775

Olympia, Washington 98504-7775

(206) 586-7310

The project coordinator for Airco Gases is:

Mike Resh

575 Mountain Avenue

Murray Hill, New Jersey 07974

(908) 771-1452

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and Airco Gases and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall

be directed through the project coordinator(s). Should Ecology or Airco Gases change project coordinator(s), written notification shall be provided to Ecology or Airco Gases at least ten (10) calendar days prior to the change.

5. Performance.

All work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with appropriate training, experience and expertise in hazardous waste site investigation and cleanup. Airco Gases shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their involvement at the Site. Airco Gases shall provide a copy of this Order to all agents, contractors and subcontractors retained to perform work required by this Order and shall ensure that all work undertaken by such agents, contractors and subcontractors will be in compliance with this Order.

Except when necessary to abate an emergency situation, Airco Gases shall not perform any remedial actions at Airco Gases outside that required by this Order unless Ecology concurs, in writing, with such additional remedial actions.

WAC 173-340-400(7)(b)(i) requires that "construction" performed on the Site must be under the supervision of a professional engineer registered in Washington.

6. Access

Ecology or any Ecology authorized representative shall have the authority to enter and freely move about all property at the Site at all reasonable times for the purposes of, inter alia: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by Airco Gases. When entering the Site under Chapter 70.105D RCW, Ecology shall provide reasonable notice prior to entering the site unless an emergency prevents notice. Ecology shall allow split or replicate samples to be taken by Airco Gases during an inspection unless doing so would interfere with Ecology's sampling. Airco Gases shall allow split or replicate samples to be taken by Ecology and shall provide Ecology seven (7) days notice before any sampling activity. Airco shall obtain, in a timely fashion, access to any other premises where work under

this order is to be performed, as necessary for Airco to carry out the requirements of this order.

7. Public Participation

Airco Gases shall prepare and/or update a public participation plan for the Site. Ecology shall maintain the responsibility for public participation at the Site. Airco Gases shall help coordinate and implement public participation for the Site.

8. Retention of Records

Airco Gases shall preserve in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder be undertaken through contractors or agents of Airco Gases, a record retention requirement meeting the terms of this paragraph shall be required of such contractors and/or agents.

9. Dispute Resolution

Airco Gases may request Ecology to resolve factual or technical disputes which may arise during the implementation of this Order. Such request shall be in writing and directed to the signatory, or his/her successor(s), of this Order. Ecology resolution of the dispute shall be binding and final.

Airco Gases is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

10. Reservation of Rights

Ecology reserves all rights to issue additional orders or take any action authorized by law in the event or upon the discovery of a release or threatened release of hazardous substances not addressed by this Order, upon discovery of any factors not known at the time of issuance of this Order, in order to abate an emergency, or under any other circumstances deemed appropriate by Ecology.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances from Airco Gases.

In the event Ecology determines that conditions at the Site are creating or have the potential to create a danger to the health or welfare of the people on the Site or in the surrounding area or to the environment, Ecology may order Airco Gases to stop further implementation of this Order for such period of time as needed to abate the danger.

11. Transference of Property

No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated

by Airco Gases without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to transfer of any legal or equitable interest Airco Gases may have in the Site, or any portions thereof, Airco Gases shall serve a copy of this Order upon any prospective purchaser, lessee, transferee, assignee, or other successor in such interest. At least thirty (30) days prior to finalization of any transfer, Airco Gases shall notify Ecology of the contemplated transfer.

12. Compliance With Other Applicable Laws

All actions carried out by Airco Gases pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements.

VI.

Satisfaction of this Order

The provisions of this Order shall be deemed satisfied upon Airco Gases' receipt of written notification from Ecology that Airco Gases has completed the remedial activity required by this Order, as amended by any modifications, and that all other provisions of this Order have been complied with.

VII.

Enforcement

1. Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

- A. The Attorney General may bring an action to enforce this Order in a state or federal court.
- B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.
- C. In the event Airco Gases refuses, without sufficient cause, to comply with any term of this Order, Airco Gases will be liable for:
 - (1) up to three times the amount of any costs incurred by the state of Washington as a result of its refusal to comply; and
 - (2) civil penalties of up to \$25,000 per day for each day it refuses to comply.
- D. This Order is not appealable to the Washington Pollution Control Hearings Board. This Order may be reviewed only as provided under RCW 70.105D.060.

Effective date of this Order: December 20, 1993

Megan White

Megan White, P.E.
Section Supervisor