STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

CLEANUP AND ABATEMENT ORDER NO. 98-004
RIDGEMONT DEVELOPMENT INC., WATT RESIDENTIAL INC. WATT INDUSTRIES OAKLAND, WATT HOUSING CORPORATION, ALCOA CONSTRUCTION SYSTEMS INC., CHALLENGE DEVELOPMENTS INC., AP CONSTRUCTION SYSTEMS INC., F.M. SMITH AND EVELYN ELLIS SMITH, REALTY SYNDICATE, LEONA CHEMICAL COMPANY, ALCOA PROPERTIES INC.
LEONA HEIGHTS SULFUR MINE
MCDONELL AVE, OAKLAND, CA

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

1. The Leona Heights Sulfur Mine is an approximately two-acre abandoned mining site that was operated as a sulfur mine from about 1900 to 1929. The inactive mine site is located in a steep ravine approximately one-half mile northeast of the intersection of Interstate 580 and State Highway 13, in the hills of Oakland. Sulfur-bearing ore mined from the site was probably used to manufacture paint and sulfuric acid. Since cessation of mining activities, conditions at the site have changed very little.

2. The site contains mine-tailing wastes. When water from the adjacent drainage and a site spring contacts the tailings, the water quality becomes significantly altered producing what is generally called "acid mine drainage". The acid drainage poses a serious threat to the beneficial uses of receiving waters in that the water discharging is acidic and contains high concentrations of dissolved metals above water quality objectives. The discharge flows into Lion Creek, which eventually discharges to the San Francisco Bay.

3. Water samples were collected from the site in 1989 and 1990. The analysis indicates site waters have been adversely impacted. The following values were reported at the site:

pH as low as 2.87	
Arsenic as high as 1700 ug/l	(Basin Plan 4-day objective is 190.0 ug/l)
Cadmium as high as 57 ug/l	(Basin Plan objective is approx. 4.0 ug/l)
Chromium as high as 200 ug/l	(Basin Plan 4-day objective is 11.0 ug/l)
Copper as high as 32,000 ug/l	(Basin Plan 4-day objective is 6.5 ug/l)
Zinc as high as 13,000 ug/l	(Basin Plan objective is approx. 21.0 ug/l)

4. The Regional Board staff adopted Waste Discharge Requirements (WDR) Order No. 92-105 on August 19, 1992. The Order named the following dishargers:
   - Ridgemont Development, Inc
   - Watt Residential, Inc. and Watt Industries/Oakland Inc. dba Ridgemont Development, Inc.
   - Watt Residential, Inc.
   - Watt Industries/Oakland, Inc.
   - Watt Housing Corporation
   - Alcoa Construction Systems, Inc.
   - Challenge Developments, Inc.
   - AP Construction Systems, Inc.
   - F.M. Smith and Evelyn Ellis Smith
   - Realty Syndicate
   - Aluminum Company of America

   Agents of Ridgemont Development Inc. submitted a number of reports required by Order No. 92-105 including a corrective measures plan. Provision C.9 of the WDR required submission of documentation of completion of corrective measures for the site by October 30, 1994. Neither Ridgemont nor any of the dischargers implemented corrective measures at the site nor submitted the required documentation report.

5. Aluminum Company of America (Alcoa) appealed the Regional Board's Order to the State Water Resources Control Board (hereinafter State Board). The State Board by Order No. WQ 93-9, adopted July 1993, directed the Regional Board to remove Alcoa from Order No. 92-105 based on insufficient evidence in the Regional Board record to hold Alcoa liable as a discharger.

   Two subsidiaries to Alcoa Properties Inc., Challenge Development Inc. and Alcoa Construction Systems Inc., also appealed the Regional Board's Order to the State Board; however, the State Board ruled in Order No. WQ 93-9 that these companies were properly named as dischargers.

6. Adoption of a new order by the Board is needed to implement the State Board's Order, clarify the involvement of the dischargers at the mine site, and to update the requirements for corrective action at the site.

7. This Order names as dischargers, the owners and operators of the mine during its period of operation in the first three decades of this century and owners of the property in the period of 1975 to the present. Though many if not all of the named dischargers no longer exist, successors in interest to these entities may become liable for complying with this Order, if the named dischargers do not comply.

8. The following describes the dischargers named in this Order, the named discharger's involvement with the mine site, and the current status of the discharger.

A. **Owner and Mine Operators During the Mine Operation**

1. F.M. Smith and Evelyn Ellis Smith
F.M. Smith owned the mine site property from 1909 to 1912. For a period of time during the mine's operation, F.M. Smith served as president of Leona Chemical Company, which was the mining company for the mine site. F.M. Smith sold property to Realty Syndicate in 1912. F.M. Smith died in the 1930's.

2. Realty Syndicate
Realty Syndicate owned the mine site property from 1912 to 1930. During this time period the Leona Chemical Company operated the mine. Based on Oakland City Directories, it appears the company ceased operations in the 1930's.

3. Leona Chemical Company
Operated the mine from approximately 1900 to 1929.
Secretary of State records indicate the company is not longer in existence.

B. **Post Mine Operation Mine Owners**

1. Ridgemont Development, Inc.
Ridgemont Development owned the mine site from 1981 to August 1997. During this period of time, Ridgemont Development owned the site with various partners who are described below. Secretary of State records indicate that Ridgemont Development Inc. dissolved in 1997.

2. Watt Residential, Inc. and Watt Industries/Oakland Inc. dba Ridgemont Development, Inc
Watt Residential, Inc. and Watt Industries/Oakland Inc. each held a fifty-percent ownership interest in the site from 1990 through at least August of 1992. Additionally, Watt Industries/Oakland held a fifty-percent partnership interest in the site as early as 1986. It is believed that both Watt Residential and Watt Industries/Oakland have dissolved.

3. Watt Housing Corporation:
Watt Housing had a partnership interest in the site from 1986 to 1990. In 1990 Watt Housing assigned all its interest in the mine site to Watt Residential Inc. It is believed that Watt Housing Corporation has dissolved.

4. AP Construction Systems, Inc.
In October, 1986 Alcoa Properties Inc., sold all outstanding stock of Alcoa Construction Systems Inc. to AP Ventures Incorporated. AP Ventures Inc. (an Alcoa subsidiary) changed the name of Alcoa Construction Systems Inc. to AP Construction Systems, Inc. and two months later, conveyed all of AP

Construction Systems Inc.'s partnership interest in Ridgemont to Watt Housing Corporation. It is believed that AP Construction Systems Inc. has dissolved.

5. Alcoa Construction Systems, Inc.
Alcoa Construction Systems, Inc. held a fifty-percent ownership interest in the mine site between 1980 to 1986. Various other partners held the remaining fifty-percent interest in the site. Alcoa Construction Systems, Inc. was a wholly owned subsidiary of Alcoa Properties Inc., which is turn, was a wholly owned subsidiary of Alcoa. Alcoa Construction Systems, Inc. has dissolved.

6. Challenge Developments, Inc.
Challenge Development Inc., held a fifty-percent ownership interest in the mine site between 1972 to 1980. Challenge Development Inc. was a wholly owned subsidiary Alcoa Properties Inc. Challenge Development Inc. dissolved in 1990.

7. Alcoa Properties Inc.
Alcoa Properties Inc. owned at least two subsidiaries, which owned the land on which the mine was located. The two subsidiaries have both been dissolved. It is believed that Alcoa Properties Inc. has also been dissolved.

9. The Board finds that the Dischargers have caused or permitted the discharge of waste that has entered Waters of the State, and created a condition of pollution or nuisance. The Dischargers have permitted the discharge of acidic water that contains concentrations of dissolved metals above water quality objectives. All of the Dischargers knew of the discharge and have the ability to control it. This Order requires the dischargers to submit and implement a cleanup plan which corrects the environmental problems associated with the abandoned mine site.

10. This Order is an action for the protection of the environment and is categorically exempt from the California Environmental Quality Act, pursuant to Section 15108, Chapter 3, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED, pursuant to Section 13304, of Division 7 of the California Water Code, that the Discharger shall cleanup the waste discharged, abate the effect of further discharge, and take other remedial actions as follows:

A. Prohibition

Discharge of waste or hazardous materials that will significantly degrade water quality, or adversely affect beneficial uses of the waters of the State, is prohibited.

B. Remedial Measures

1. The Dischargers shall submit by **March 1, 1998** a technical report acceptable to the Executive Officer documenting the intent to comply with the requirements of this Order.

2. The Dischargers shall submit a revised corrective action plan **Implementation Schedule** acceptable to the Executive Officer by **March 20, 1998**. The revised schedule shall be for the implementation of the March 31,1993, Leona Heights Mine Corrective Action Plan and Implementation Schedule (Levine-Fricke) as proposed by the Dischargers. Upon implementation of the 1993 plan, the discharge of acidic waters and elevated metals in the drainage water above water quality objectives shall cease. Implementation of the 1993 plan shall provide for the prevention of further erosion of the mine tailings, and shall encapsulate the mine tailings in a manner as to best isolate the mining waste from stormwater runoff and contact with groundwater. The Dischargers shall implement the 1993 plan immediately upon the approval of the revised Implementation Schedule.

3. Post construction monitoring which is aimed at assessing the effectiveness of remedial activities and can determine whether additional remedial activities are needed shall be conducted at the site. Post construction monitoring points shall be established to monitor site conditions. Post construction monitoring shall be implemented within **two-weeks** following completion of construction and the monitoring results shall be reported every **three months** thereafter.

4. The Dischargers shall submit a **Corrective Action Evaluation Report** as a technical report acceptable to the Executive Officer by **September 15, 1999**. The report shall consist of the results of the post construction monitoring efforts, an evaluation of the effectiveness of the corrective action activities, and a proposal for long term monitoring. The Report shall propose water quality protection standards, and additional remediation efforts, which may be necessary in order to meet such standards.

5. All excavated waste materials shall be disposed of appropriately, and if stored temporarily on land, shall be prevented from eroding and subsequently discharging to Waters of the State.

6. The Discharger shall submit monthly progress reports during the implementation of the corrective action activities and shall end upon completion of the corrective action activities. Post construction monitoring shall be implemented as described in B.3 above.

C. General Requirements

1. All hydrological reports, documents, plans and specifications shall be certified by either a State Registered Geologist, a certified Engineering Geologist or a Civil Engineer registered pursuant to Section 6762 of the Business and

Professions Code, who has at least five years experience in ground water hydrology.

2. All samples shall be analyzed by State certified laboratories accepted by the Board, using approved EPA methods.

3. If the Discharger is delayed interrupted or prevented from meeting one or more of the completion dates specified in this Order, the Discharger shall promptly notify the Executive Officer in writing with revised completion dates. The Board may consider revision to this Order.

4. Copies of all correspondence, reports, and documents about compliance with this Order, shall also be provided to the State Department of Fish & Game, The East Bay Regional Park District.

5. The Discharger shall immediately notify the Regional Board and the State Department of Fish and Game by telephone, whenever an adverse water quality condition occurs because of soil excavation and groundwater management related activities. A written confirmation on the incident shall follow within five working days.

Pursuant to Section 13304 of the Water Code, the Discharger is hereby notified that the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of wastes and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. Upon receipt of a billing statement for such costs, the Discharger shall reimburse the Regional Board.

Pursuant to California Water Code sections 13304 and 13350, if a Discharger fails to comply with the provisions of this order, the Board may schedule a hearing to consider assessing civil monetary penalties and to consider requesting the Attorney General to take appropriate enforcement action against the Dischargers, including injunctive and civil monetary remedies.

Loretta K. Barsamian
Executive Officer

1.30.98
Date