

RECEIVED
PUBLIC SERVICE
COMMISSION
OSEC-FILES-ALBANY

2001 NOV -7 PM 2:00

ORIG - FILES
000-F-1522
9 COPIES DAST
PER STAFF LIST

November 6, 2001

The Honorable Janet Hand Deixler, Secretary
New York State Board on Electric Generation
Siting and the Environment
Three Empire State Plaza
Albany, New York 12223-1350

Re: Case 00-F-1522- Application of Astoria Generating Company, L.P. for a Certificate of Environmental Compatibility and Public need to Construct and Operate a 1,816 megawatt Natural Gas-Fired Combustion Combined Cycle Turbine Electric Generating Plant in the City of New York, Queens County, New York

Dear Secretary Deixler:

Attached please find 11 copies of Exhibit 15.7.5-1, Marley Cooling Tower Manufacturers Guarantee that the cooling tower drift rate will not exceed 0.0002%. Please insert this exhibit behind the existing exhibits in Volume 2 of the Article X Application filed on October 26, 2001.

Sincerely,

ENVIRONMENTAL SCIENCE SERVICES, INC.



Matthew Dowling
Environmental Scientist

Attachments: Exhibit 15.7.5-1

C: Janine Whitken, Orion Power
Robert Svendsen, Orion Power
Liam Baker, Orion Power
George Claypoole, Orion Power
Scott Truner, Nixon Peabody
Attached Distribution List



#1747

Hon. Nathan L. Rudgers
Commissioner
NYS Department of Agriculture & Markets
One Winners Circle
Albany, New York 12235 261895

1 copy

Hon. William R. Howell
Chairman
NYS Energy Research and Development
Authority
Corporate Plaza West 260709
286 Washington Avenue Extension
Albany, NY 12203

2 copies

Hon. Eliot Spitzer
NYS Attorney General
The State Capitol
Albany, New York 12224 243544

1 copy

Hon. Randy A. Daniels
Secretary of State
NYS Department of State
41 State Street
Albany, New York 12231 214419

1 copy

Hon. Rudolph W. Giuliani
Mayor
Office of the Mayor
City Hall
New York, NY 10007 262408 1683

1 copy

Hon. Joseph H. Boardman
Commissioner
NYS Department of Transportation
State Campus Building 5
1220 Washington Avenue
Albany, New York 12232 261891

1 copy

Hon. Virginia Fields
Manhattan Borough President
Municipal Building
One Centre Street, 19th Floor
New York, NY 10007 269572

1 copy

Hon. Claire Shulman
Queens Borough President
120-55 Queens Blvd.
Kew Gardens, NY 11424 259017

1 copy

Legislative District/Branch Library
Astoria Branch
14-01 Astoria Blvd.
Long Island City, NY 11101 269574

1 copy

Central Library/Legislative District Library
Queens Borough Public Library
89-11 Merrick Blvd.
Jamaica, NY 11432 262435

1 copy

Mr. Christopher Hogan 268577
Division of Environmental Permits
NYS Department of Environmental
Conservation
625 Broadway
Albany, NY 12233-1750

9 copies

125th Street Branch Library 269575
224 East 125th Street
New York, NY 10035

1 copy

26234

Hon. George Onorato
NY State Senate
14th Senate District
28-11 Astoria Blvd.
Long Island City, NY 11102

260729

1 copy

Hon. Michael N. Giannaris
NY State Assembly
36th Assembly District
21-77 31st St., Suite 107
Astoria, NY 11105

269576

1 copy

Hon. Nelson Antonio Denis
NYS Assembly
68th Assembly District
248 East 119th Street
New York, 10035

262683

1 copy

Hon. Olga A. Mendez
NYS Senate
28th Senate District
87 East 116th Street
New York, NY 10029-1103

259188

1 copy

Hon. Maureen O. Helmer
Chairman
NYS Department of Public Service
Three Empire State Plaza
Albany, NY 12223

1 copy

Hon. Erin M. Crotty
Commissioner
NYS Department of Environmental
Conservation
625 Broadway
Albany, New York 12233

257872

1 copy

Hon. Antonia C. Novello, M.D.
Commissioner
NYS Department of Health
Corning Tower
Empire State Plaza
Albany, NY 12237

262481

2 copies

Hon. Charles A. Gargano
Chairman
Empire State Development Corporation
30 South Pearl Street
Albany, New York 12245

2 copies

Lisa F. Garcia
NYPIRG
9 Murray Street, 3rd Floor
New York, New York 10007

263011

Nancy C. Cianflone
Manager
Gas Marketing & Sales Division
KeySpan Energy
One MetroTech Center
Brooklyn, New York 11201

258680

Cynthia R. Clark, Esq.
KeySpan Corporation
One MetroTech Center
Brooklyn, New York 11201

232635

David P. Warner, Esq.
Consolidated Edison Company
of New York, Inc.
4 Irving Place - Room 1815-S
New York, New York 10003

260510

Peter K. Chan
Consolidated Edison Company
of New York, Inc.
4 Irving Place - Room 1306-S
New York, New York 10003

261973

Peter Carnavos
Consolidated Edison Company
of New York, Inc.
4 Irving Place - Room 2415-S
New York, New York 10003

268359

EXHIBIT 15.7.5-1
Manufacturers Guarantee

911 867 6640



Marley Cooling Tower

A United Dominion Company

108 Corporate Park Drive White Plains, New York 10604 Tel 914-897-5030 Fax 914-897-5039

March 20, 2001

PB Power, Inc.
One Penn Plaza
New York, NY 10119

Attn: Dugald Morrison

Subject: Orion Power New York
Astoria Re-Powering Project
Cooling Tower Drift Rate

Gentlemen:

We are pleased to confirm that Marley Cooling Tower is able to furnish a cooling tower for the Astoria re-powering project with a drift rate not to exceed 0.0002%. This drift rate is expressed as a percentage of the total circulating flow rate through the cooling tower.

The stated drift rate is a guaranteed value and not an estimate. Verification of the guarantee would be achieved by measuring the drift rate after start up in accordance with the Cooling Tower Institute Test Procedure ATC-140.

This drift rate will be achieved by installing two layers of our Xcel Plus Drift Eliminators in this cooling tower. The best available drift rate for a single layer of this eliminator is 0.0005%. For applications requiring a lower drift rate, we add a second layer of the Xcel Plus Drift Eliminator.

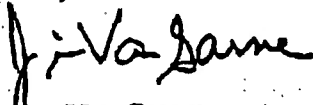
The Xcel Plus Drift Eliminator is a cellular type eliminator, which is the most efficient eliminator available in the cooling tower industry today. Each layer is a three pass design, which means that the air makes two directional changes within each pack. Each time the air makes a directional change the heavier water droplets are stripped out of the exit air stream and drained back into the cooling tower. With a double layer of eliminators the air will be forced through six separate passes before exiting the cooling tower.

You will find attached a catalog cut sheet, which describes the Xcel Plus Drift Eliminator in more detail. In addition, I have included a schematic drawing from a similar project showing the location of the drift eliminators within the cooling tower structure.

The Marley Xcel Drift Eliminator has been in use for more than fifteen years so we offering a proven product for this application and not a prototype. Marley has a four acre testing facility in Kansas City, Missouri where all of our product testing is performed. In addition the drift elimination performance for the Xcel Plus Eliminator has been independently verified through third party testing.

Please let me know if I can furnish any of the information on this subject.

Very Truly Yours,



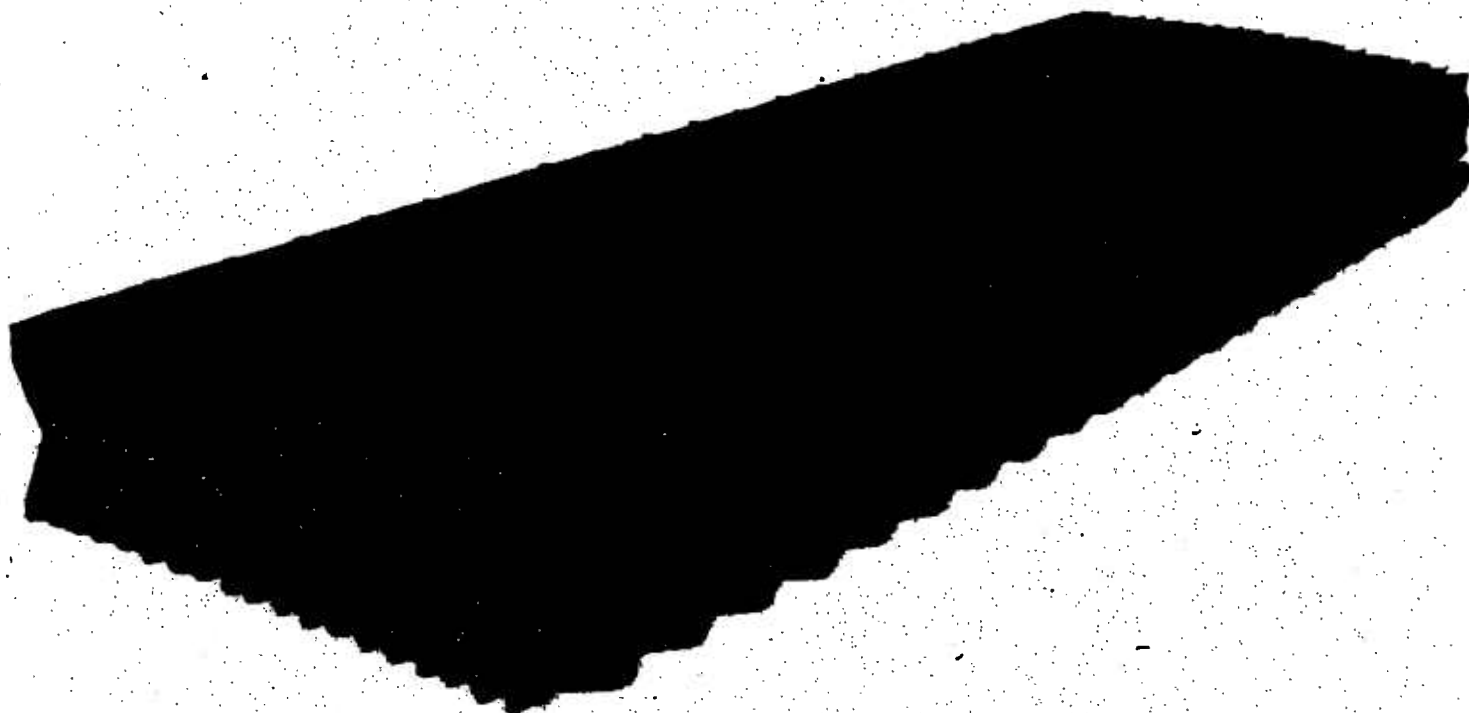
Jim Van Garse
General Manager, Eastern Region
The Marley Cooling Tower Company

cc: Darren Baugher
Marley Cooling Tower Headquarters
Overland Park, KS



XCELplus

Drift Eliminator



Marley developed the first cellular drift eliminator 20 years ago when eliminator designs were primarily blade type configurations and not very effective. Next, Marley patented the XCEL generation of eliminators in the early 80s. No other eliminator could come close to XCEL eliminator's low drift rate and low pressure drop. Now, virtually every eliminator is a nesting cellular PVC type design.

Introducing XCELplus, a more advanced design that meets or exceeds today's demanding specifications for drift emissions, without sacrificing fan horsepower. Now you can have drift rates half of the original XCEL with equivalent pressure drop.

The eliminator discharge angle is important enough to warrant two separate eliminator designs for crossflow and counterflow towers. Tests show the air direction leaving the eliminator is extremely important—imperfect designs create additional work for the fan. This means either increased fan horsepower—or reduced cooling tower performance. The crossflow version features drainage slots within the eliminator pack to insure trapped drift is returned to the wet side of the cooling tower.

Low drift rate is the primary goal of eliminator design. XCELplus boasts typical drift rates of .001% of the total GPM. Drift rates of .0005% and lower

are available depending upon tower configuration. Drift rates with the original XCEL eliminator were so low that a better measurement method than the Sensitive Paper technique was required. The Hot Bead Isokinetic Drift Measurement (HBIK) method pioneered by Marley 20 years ago is now the endorsed CTI standard test procedure, ATC-140, for drift measurement today.

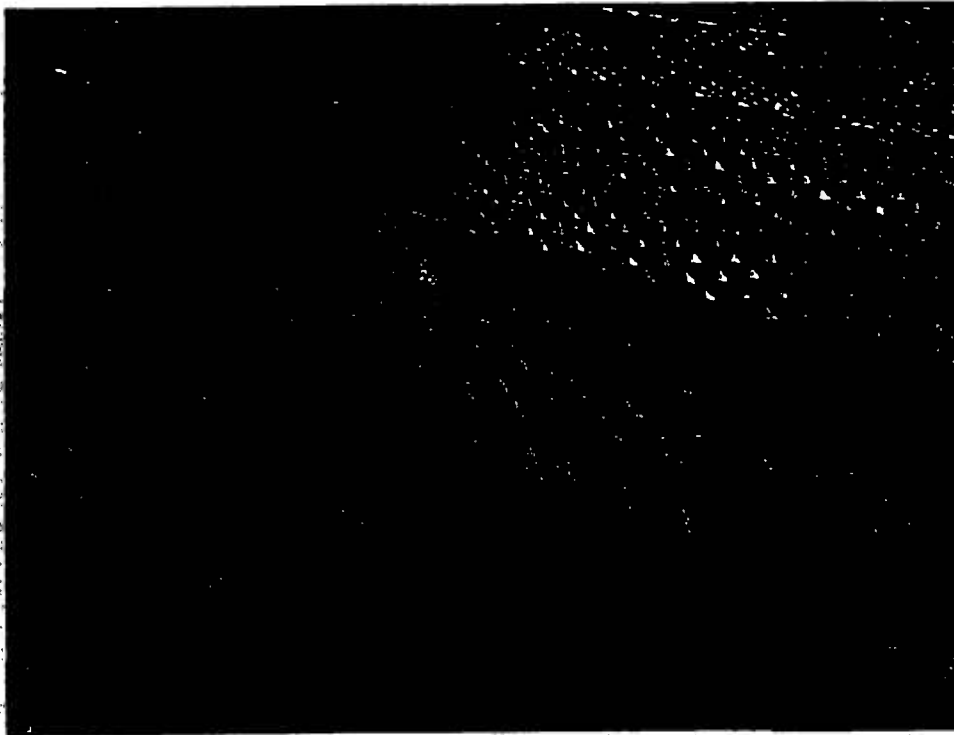
Considering low drift rates and low pressure drop, XCELplus is the most effective cooling tower drift eliminator available in the market place today.



Marley

XCELplus

Drift Eliminator



Suggested Specification:

Drift eliminators shall be of cellular type, Marley XCELplus or approved equal. The eliminators shall be thermoformed from 17 mil (.017") PVC (polyvinyl chloride) material into a configuration providing at least three changes of air direction and solvent welded into multiple sheet packs.

Eliminators used in crossflow towers must provide a discharge angle (as defined by the angle of the last section of the eliminator itself) of at least 42° from the horizontal when installed.

The mass drift quantity, determined by the CTI Drift Test Code ATC-140 shall not exceed _____% of the total GPM and shall be guaranteed for all operating conditions.

The eliminator packs shall be able to span 66" unsupported for counterflow configurations and 72" for crossflow, with minimal deflection at design conditions. Eliminators shall be FM approved.

Eliminator packs shall measure up to 24" wide, 5.75" in depth and up to 12'-0" long.



Marley Cooling Tower

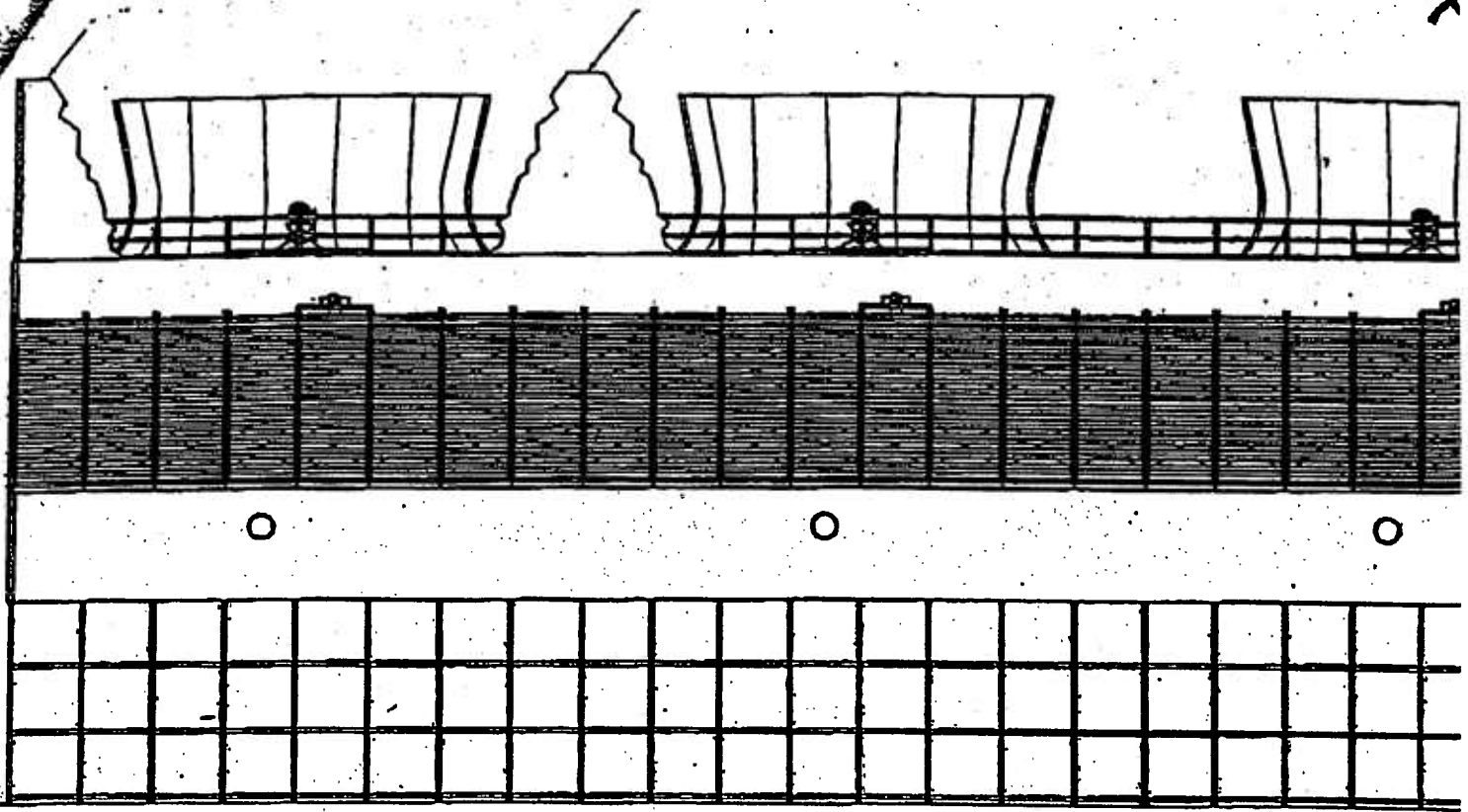
A United Dominion Company

The Marley Cooling Tower Company
7401 W 129 Street • Overland Park, KS 66213 • 913.664.7400

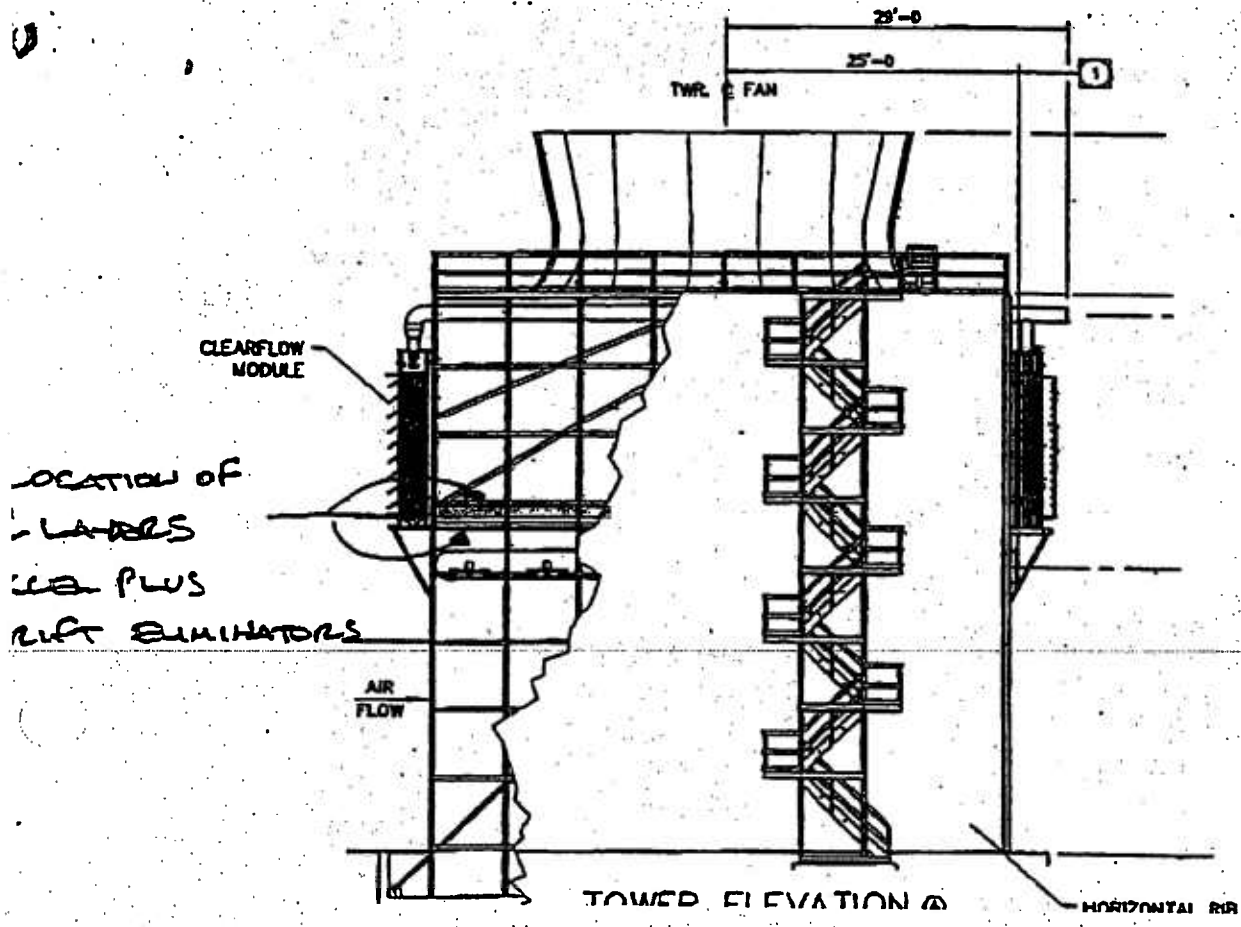
email: info@marleyct.com • www.marleyct.com

In the interest of technological progress, all products are subject to design and/or material change without notice.

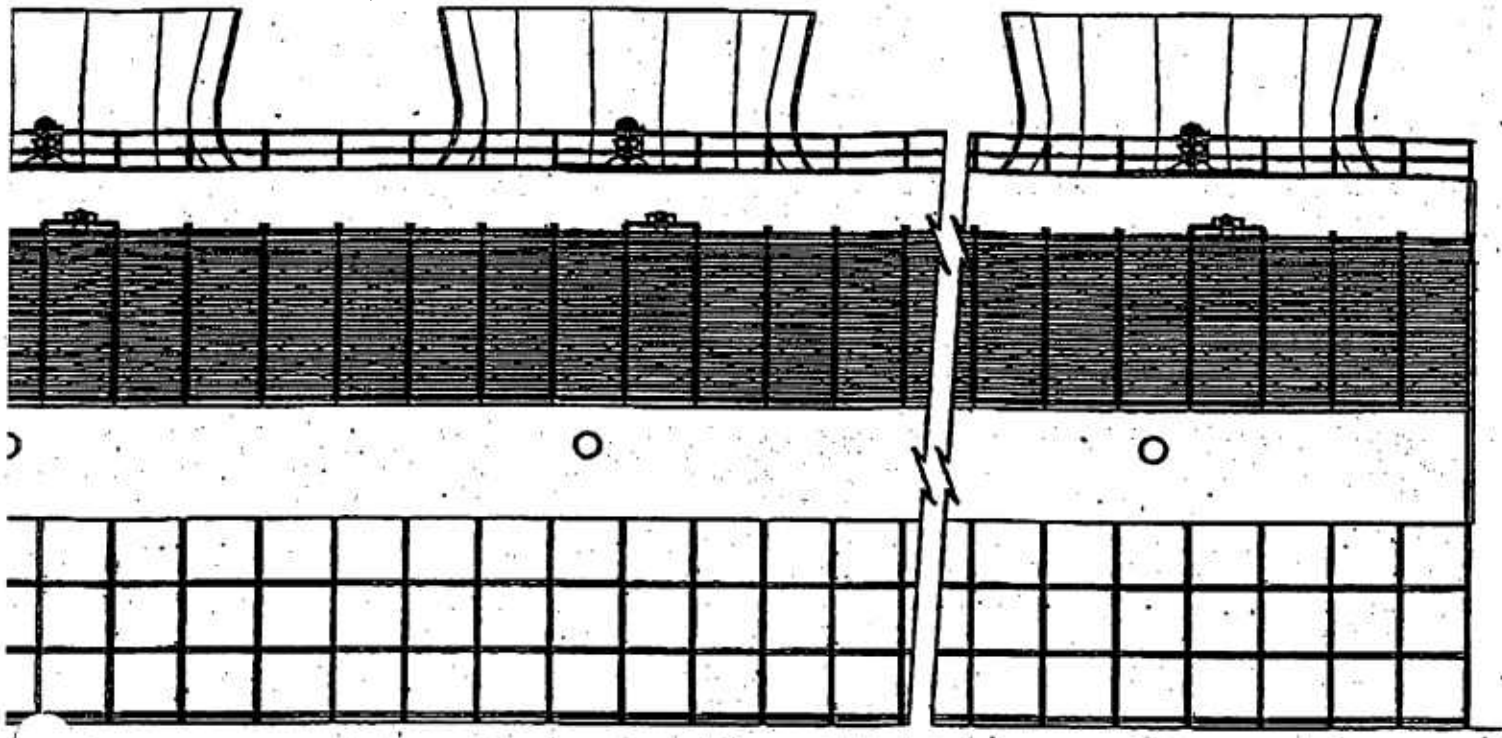
Pg 1 of 2



TOWER ELEV
(FACE 'A')
(TOWER 'A' SHK)

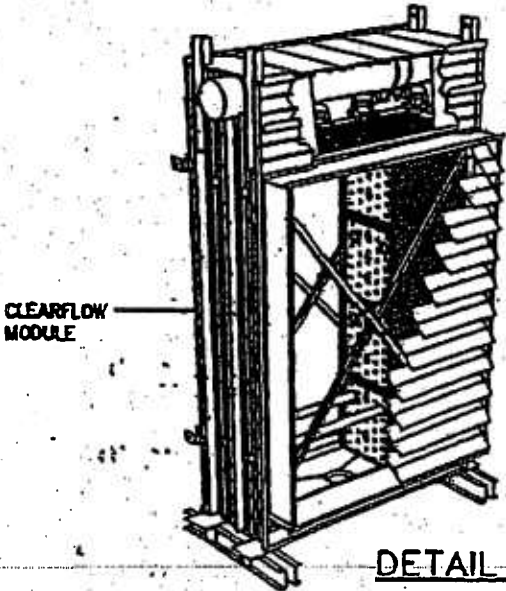


~~PS 2 of 2~~

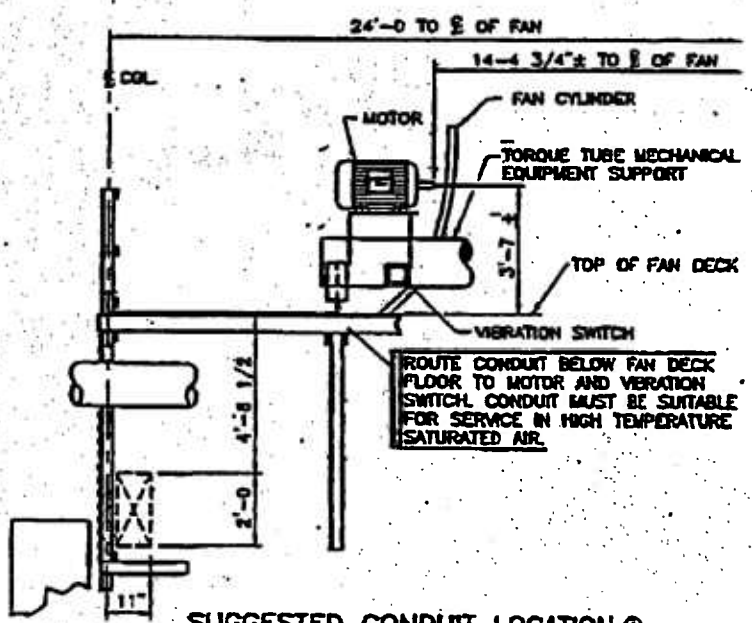


ELEVATION (A)


(FACE 'A')
 (R 'A' SHOWN)



DETAIL 1



SUGGESTED CONDUIT LOCATION (ELEVATION VIEW FROM MOTOR SIDE OF FAN)

Preliminary Drawing
 Information only for preparatory consideration and discussion.
 Marley Cooling Tower
 A United Technologies Company