

RESOLUTION OF THE CITY COUNCIL

No. 126

Approved March 22, 1989

WHEREAS, Newbay Corporation plans to build a cogeneration power project in East Providence, and

WHEREAS, Problems exist in that the proposed stack will be approximately 350 feet high, a boiler house to be erected will be approximately 145 feet high and a baghouse, 55 feet high, and

WHEREAS, These structures will undoubtedly be an eyesore to the residents of the area, together with a pollution problem that will exist due to the nature of the construction, and

WHEREAS, The construction of a deep pit to store the coal and ash residue left over when said coal is burnt will create an enormous problem inconsistent with the property values along the East Side of our City,

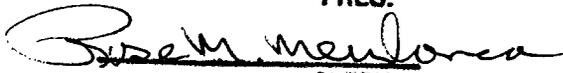
NOW, THEREFORE, BE IT RESOLVED, That the members of the Providence City Council hereby oppose the plans of Newbay Corporation to build a cogeneration power project in East Providence.

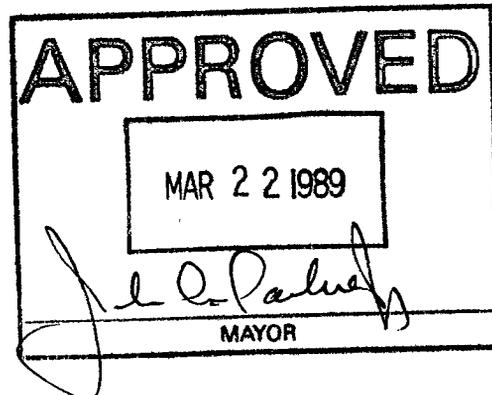
IN CITY COUNCIL

MAR 16 1989

READ AND PASSED


PRES.


CLERK



IN CITY COUNCIL
JAN 26 1989
FIRST READING
REFERRED TO COMMITTEE ON

URBAN REDEVELOPMENT
RENEWAL & PLANNING

Rose M. Mendonca CLERK

THE COMMITTEE ON
URBAN REDEVELOPMENT

~~RENEWAL & PLANNING~~
Approves Passage of

The Within Resolution

Rose M. Mendonca
Clerk Chairman

March 7, 1989

Council President Easton (By Request)

Box 3171 Wayland Square
Providence
Rhode Island 02906



**Blackstone Park
Improvement Association**

April 15, 1988

Mayor Joseph R. Paolino, Jr.
Providence City Hall
Providence, RI 02903

Dear Mayor Paolino:

Our association recently became aware of large-scale plans to construct a substantial, coal-fired cogeneration electric plant on the E. Providence shore. The plant, situated a short distance across the Seekonk River from the East Side of Providence, would have a chimney stack over 40 stories high, burn 800-900 tons of bituminous coal and 600 tons of limestone daily, and would run its machinery 24 hours a day, seven days a week, all year round.

The cogeneration plant proposal was first given mention in the press with a short article June 22, 1987, published in the City edition of the Providence Journal. Few plant specifics were spelled out: possible 70-megawatt size, coal-fired, and the company spokesman's emphasis on the plant being "relatively small."

On June 30, the developer, Newbay Corporation of Boston, held an introductory news conference at CullingHouse in E. Providence where city dignitaries were shown a video of cogeneration and the proposed plant, and given a tour of the proposed site. The event was reported in the City edition of the Evening Bulletin the same day and in the East Bay edition of the Providence Journal the following morning, July 1. In both short articles, a few more specifics were mentioned: plant would use 15 acres; 40 megawatts of power produced would be bought by New England Power Company, and again the plant was described as being "relatively small."

The E. Providence Zoning Board approved construction of the cogeneration plant at a hearing on July 29, 1987, by granting variances requested on height and outdoor coal storage to the present owner of the site, Arpad J. Merva of East Providence, the meeting commencing at 7 p.m. and the vote taken around 11 p.m.

Following the hearing, the July 1 East Bay edition of the Providence Journal reported that variances had been granted for a height "exceeding the 40-foot height limit," and for outside coal storage. It also quoted Howard F. Bovers, Newbay president, as noting that the facility would reach 170 feet at its tallest, would occupy ground space of 35,000 square feet and would cost \$110 million.

Having read only the last few paragraphs of this letter, you would then know more than residents of our area knew when the plant possibility was unexpectedly brought to our attention by a friend with an E. Providence connection. Our association has since done further research on the plant, and sufficient additional specifics - with their immediate and long-range consequences - have been collected, altogether aggravating the concerns of homeowners residing a mere few hundred feet away to the west. Unquestionably, this possible onslaught of pollution in its various forms is extremely startling to association members and other East Side residents, particularly in light of the area's recent and high revaluations.

The Blackstone Park Improvement Association, responding to these concerns, has moved to oppose the plant's construction, at least until the association can be apprised of more positive particulars concerning background, construction, maintenance and emissions than the following:

Broadly speaking, Newbay is a Boston company headed by a resident of Salt Lake City, Utah, but the bulk by far of financing is allegedly being put up by Salomon Brothers, the New York investment firm. The designs are being executed by Burns & McDonald of Kansas City, which will oversee construction as well as provide the initial staff of some 50 highly trained technicians. Also, outside of a planned, neighboring gypsum plant, the electricity going to New England Power is supposedly already committed to Massachusetts towns, such as Raynham and Taunton.

An energy-producing facility such as this one is termed a cogeneration plant because it sells, not only power, but also the steam used to generate the electricity, with some steam condensing to recycle the process.

The plans for the Newbay plant physically comprise a 40-story-high smokestack (~~410 to possibly 440 feet~~), a 17½-story-high building housing the combustor/boiler (175 feet, as quoted from the zoning board transcript), and a number of other sizable buildings, from the "baghouse" of emission-cleansing mechanisms, to a 35,000 gallon fuel oil tank to power start-up and an auxiliary boiler, to exterior storage silos, to administration, etc., 12 in all occupying a total of 60,000 square feet; also, a railroad spur to facilitate the transport of coal and limestone needs and an outdoor emergency coal storage area holding 100,000 tons.

The planned size and large-scale industry that this plant represents, has given our association cause for apprehension in every pollution area, and inquiries have been made as to pollution controls.

The Department of Environmental Management (DEM) has procedures in several pollution areas that must be complied with to obtain permits. When these are in hand, final approval or rejection for plants of 80 megawatts and over is then given by the state's Energy Facility Siting Board, made up of the Public Utilities Commission (PUC) chairman, the head of DEM and the head of State Planning & Development.

Newbay plans a plant now alleged to be 79.5 megawatts and therefore does not need to go before the Siting Board. However, it must still meet permit compliances, although each division of DEM operates independently in the grantings. Newbay also needs approval from Coastal Resources Management Council (CRMC) if close to water or causing possible effects on wetlands; and approval from the Federal Aviation Administration (FAA) for stack height.

There are several pollution areas to consider.

Air pollution concerns have to do with chimney emissions, coal dumping, emptied but dusty coal cars and open coal storage; also limestone, ash storage.

DEM requires that an applicant use approved computer software to "model" those calculations for chimney emissions to provide the information needed for determination of possible air pollutants. When approval is given for the software, the company then performs its modeling using standard information on winds, temperatures, atmospheric conditions, etc. With modeling done, an application is made to DEM for a permit.

Newbay skipped the first step, doing its modeling on software not initially approved. Although it now wants to go to "public comment," i.e., advertising for comments from the public, by June 1, the modeling "has problems," and a DEM spokesman said it was unlikely that that date could be made, which Newbay says is necessary to meet their groundbreaking schedule of August 1.

Chimney height is determined by Good Engineering Practice (GEP). A height of 350 feet usually satisfies GEP figures on what is called "downwash," that is, chimney emission caught up in air currents caused by nearby buildings, creating

a strong downdraft and washing the emissions down the chimney to nearby ground areas.

Newbay's decision to heighten the chimney to over 400 feet is a reaction to the large cluster of buildings it plans, plus the height of the combustor/boiler. The additional chimney height to avoid downwash, however, also could create problems in satisfactory emissions and in monitoring same.

Other dangers of coal-limestone dust emissions lie with the transport, transfer and storage of the 1000 tons of coal and 600 tons of limestone to be delivered daily.

As for transport and transfer, Newbay plans to bring coal by ship to the Wilkes-Barre pier where it would be dumped into Providence & Worcester coal cars and taken to the plant along a planned railroad spur. At the plant the coal would be dumped into an enclosed conveyor system or into the outdoor storage area. (Other planned P&W coal-filled cars would travel on to Woonsocket and a proposed regular-type coal-fired energy plant being planned by Allied Energy Systems (AES) of Montville, Conn.)

~~(So far, CRMC has denied the application for a P&W ship-rail-truck terminal at the pier by a tied vote. However, as of April 14, a request is being made for a retrial. P&W is owned by Joseph DiStefano, president of Capital Properties and chairman of the State Board of Elections.)~~

The outdoor, "dead" storage area of 100,000 tons of coal, a ten days' supply, would be in a pit 20 feet deep, mounding to 20 feet above the ground level, and covered with a liquid tarpaulin seal. Should the seal be broken, coal dust could escape.

The ash left from burned coal and limestone is another concern. At maximum, approximately 14 tons per hour of ash will be generated. Three days of storage, or 1000 tons, would be provided in two silos of 500 tons each. After, the ash would be loaded onto trucks for sale or disposal.

At the federal level, six major air pollutants have been given national standards. If a pollutant exceeds its national standard, it is said the area where it exists did not reach, or attain, the standard, and becomes a non-attainment area. An attainment area means it has reached satisfactory levels.

Providence has reached attainment in NO_x emissions, nitrogen oxides; and SO₂, sulfur dioxide. For the pollutant termed particulates, meaning any dust, sand, etc., the necessary data for recent attainment has not been approved. Other major pollutants are lead from auto exhaust - non-attainment in Providence; CO, carbon monoxide - non-attainment at and near major Providence intersections; and ozone, non-attainment in Providence.

Newbay plans to control NO_x emissions by keeping the burn area temperature at approximately 1500 degrees F, below the temperature where NO_x are formed through conversion of nitrogen in the burning air.

It also plans to limit the emission of sulfur dioxide by adding limestone to burning coal. The chemical reaction produces carbon monoxide and calcium oxide, the latter combining with sulfur dioxide to form particulates. These and other particulates would be collected by a fabric filter.

Ozone, the last pollutant, is not emitted from one source, but is a combination of hydrocarbons emitted from a variety of industry and cars. The hydrocarbons react with sunlight and nitrogen oxides to form ozone. The primary effect of ozone at lower atmosphere levels is as an irritant, impairing people's ability to breathe. High levels of ozone could cause a healthy person while exercising to have difficulty breathing, according to a DEM spokesman.

Noise pollution is another area of pollution concern: The effects of modern-day noise pollution were faced recently by the Providence City Council, which responded with a new noise ordinance. But that ordinance does not extend to sound from another city.

In Providence, the large East Side residential area would be within easy hearing distance of the planned plant's machinery, with the Seekonk River inbetween acting as a sounding board. At night, the sound would be magnified, much as was the noise from the Getty Oil Company ships that regularly docked at 2 to 3 a.m. During the day, in addition to the plant machinery would be added noise from the frequent unloading of the 1000-ton daily delivery of coal, dumped from metal coal cars, and the 600-ton daily delivery of limestone, dumped from metal trucks at the rate of 80 tons per hour.

Water is yet another pollution problem: Water pollution is the "invisible" pollution concern. There are two kinds of water needed for a cogeneration electric plant. The cleanest, used in the boiler, would be drawn from the municipal water system. Even then, the needs of 100,000 gallons daily (700,000 weekly) of this drinking water would still need to travel through a demineralizer treatment system. The treatment wastes would be discharged into the Seekonk River or Omega Pond with remains of water used in the cooling tower.

The cooling tower would draw 1,000,000 gallons daily (7,000,000 weekly) of other water, non-drinking level, planned to come from the Seekonk River, or from Omega Pond, an enlarged basin that is part of Ten Mile River before it flows into the Seekonk. (Omega Pond was purposely created many years ago to create a source of water for neighboring industry.) Cooling tower water also would need to be treated to prevent machinery corrosion, with 100,000 gallons daily returned to the river, with its wastes and at a higher temperature.

(The planned Ocean State electric plant proposed for Burrillville would take 4,000,000 gallons daily - 28,000,000 weekly - from the Blackstone River, upstream from the Seekonk, no return. The planned AES plant proposed for Woonsocket would use approximately 2,000,000 gallons daily of treated effluent from the local sewage treatment plant, some discharged to the Blackstone.)

The last pollution of all is one frequently unvoiced: Visual pollution, however, has been a concern of many organizational groups in the city of Providence, as effort has followed effort to make the city a better place to live. Unfortunately, our efforts to the east and the \$160 million plus proposed for Seekonk River waterside developments and improvements may be discouraged with the augmentation of a 40-story-high chimney stack, its substantial cluster of buildings, other industrial artifacts needed for its operation and its possible accompaniment of numerous pollutants.

After the East Providence Zoning Board approved the variances for the Newbay Corporation in July, 1987, two abutting property owners appealed the decision. Peter Hallock owns a neighboring, recently built precision plant. Eugene Voll, in business with Hallock, owns a separate piece of property. The litigants allegedly want Newbay to install a monitoring station which would take the average daily reading, reporting each quarter; if the plant emitted 25% or more coal dust once during the 90-day period, there would be no fine; the second violation would benefit Save the Bay by \$2,000; the third violation (and fourth, etc.) would pay the litigants \$2,000 per day. Other requests have to do with the size and storage of the open coal pile.

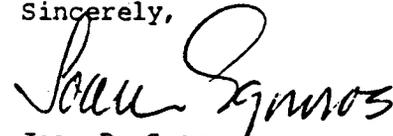
Because of this litigation, the variances granted have expired, but the present owner, Arpad J. Merva, need not reapply as the issue is now before the court, which has jurisdiction over zoning boards. However, the gypsum plant, for which he asked and was granted variances, also in July, 1987, is reapplying April 27, possibly concluding that the issue could be settled soon, for Merva.

In conclusion: The Seekonk River might be looked upon as a street between two rows of neighborhood buildings. The one side is striving to make its appearance appealing - care is taken of its wooded areas, new homeowners are encouraged not to block river views; and neighbors group together to ensure that surroundings to enhance solid, family lifestyles remain pleasant and intact.

The other side of the "street" is filled with the detritus of industry, on land and in the water, with a possibility of more to come, encouraged, perhaps, by the serene vistas across the way. Obviously, there is a dichotomy of thought existing as to what riverside potential means in Providence and what riverside potential means in East Providence.

We urge you to consider the implications that this plant would have for Providence, and to take steps to ameliorate or to avoid what we predict would be a negative impact upon the city.

Sincerely,



Joan P. Sgouros
President

Copies: Governor Edward DiPrete
Senator Sean Coffey
Senator Victoria Lederberg
Representative Linda Kushner
Council President Nicholas Easton
Councilman Malcolm Farmer
Councilwoman Carolyn Brassil

William Goddard
Harold Schein
Donald Richardson
Austin Ferland/Koffler Corp.

Coastal Resources Management Council
Department of Environmental Management
Public Utilities Commission

Audubon Society
Providence Preservation Society
R.I. Historic District Commission
Save the Bay

Members BPIA

NEWBAY CORPORATION

800 Hingham Street
Rockland, Massachusetts
02370

May 17, 1988

Mayor Joseph E. Paolino, Jr.
Providence City Hall
Providence, RI 02903

Dear Mayor Paolino:

In a letter dated April 15, 1988, the Blackstone Park Improvement Association voiced concern about ~~Newbay Corporation's plans to build a cogeneration power project in East Providence.~~ The President of the Blackstone Park Improvement Association, Joan F. Sgouros, scheduled a meeting with Newbay to discuss the project for the evening of May 9, but sent a letter to yourself and several governmental agencies and representatives several days before Newbay had the opportunity to provide Ms. Sgouros with the correct facts. We take this opportunity to respond to and correct the many and varied technical errors made in Ms. Sgouros' letter to you.

- 1) The plant will utilize 65-90 tons of limestone per day depending on the quality of the coal, not 600 tons per day.
- 2) The net electrical output of the Facility will be 72.5 megawatts; 40 megawatts of which will be purchased by New England Power Company for the Narragansett System, 32.5 megawatts of which will be purchased by 11 Massachusetts municipalities. The difference between the 79 megawatt gross capability of the Facility and the 72.5 megawatt net output will be consumed by the Facility itself.
- 3) The stack will be approximately 350 feet high.
- 4) The boiler house will be approximately 145 feet high, and the baghouse, a separate building, will be approximately 55 feet high.
- 5) The normal size for a utility sponsored coal-fired power unit is typically 400 to 700 megawatts. For example, the New England Power Company plant at Brayton Point is 1600 megawatts. The Newbay facility is very small in comparison.
- 6) The inactive coal storage pile will have a 25,000 ton supply, not 100,000 tons. Several measures to combat dust are planned. When the coal is put into the pad it will immediately be moistened with water to prevent dust. The storage area is designed to be lower than the surrounding grade and bordered by high fencing and vegetation. A dust suppression coating will be applied to the inactive pile. The active coal pile will be totally enclosed in a dome like structure and silos.

- 7) The FAA Notice of Proposed Construction or Alteration has already been filed and approved.
- 8) The coal and limestone will be transported to the Facility by an all-rail route connecting with the Providence & Worcester rail spur adjacent to the site. Newbay does not plan to ship coal and limestone through the Wilkes-Barre Pier. The ash will be removed from the site via the P&W spur and then back to the originating coal mine(s).
- 9) The height of the stack has no affect on the increase or decrease of emissions, just the size of the dispersion area. As Ms. Sgouros correctly states, a chimney height of 350 feet is considered Good Engineering Practice for a facility of this kind.
- 10) In the event that Newbay purchases municipal water for its plant needs, it would indeed pass through a demineralizer prior to entering the plant system. The extracted minerals then pass through a neutralizer sump, and are monitored before leaving the facility at a rate of 5 gallons per minute. These minerals combine with the cooling water discharge which leaves the facility at a rate of 150 gallons per minute, thus diluting the minerals by a 30 to 1 ratio. The 155 gallons per minute that enters Omega Pond is further diluted by the annual average flow of 50,000 gallons per minute which currently runs through Omega Pond and down into the Seekonk River.

Newbay is complying with all procedures with respect to the state and federal regulation process. A sewer connection application has already been approved by the Blackstone Valley sewer district. The State of Rhode Island's Department of Environment Management has concluded there are no fresh water wetlands on or adjacent to the subject property under the protection of the Fresh Water Wetlands Act. A circulating fluidized bed system will be utilized to burn the coal. This is safe, clean technology which meets or exceeds both federal and state regulations for emissions of all types. Ms. Sgouros states accurately that the Newbay project plans to control NOx emissions by keeping the burn temperature at 1500 degrees Fahrenheit which is below the temperature where NOx emissions are formed.

She also correctly states that the chemical reaction of the limestone being burned with the coal drastically reduces the SOx emissions. Particulate emissions will be controlled by large filters contained in the baghouse. The air, water discharge and CRMC coastal permit applications were prepared by engineers of Burns & McDonnell and scientists of Environmental Science Services, a company located in Providence, and were filed in February. In addition, the latest sound attenuation techniques have been employed to insure full compliance (day and night) with the noise code for Federal, State and local ordinance's at the plant boundary site. Newbay has been working cooperatively with the appropriate regulatory agencies since September of 1987 and continues to work with them toward permit approvals.

Third and finally, federal, state and municipal representatives have welcomed the development of Newbay's Cogeneration Facility and have been supportive since the initiation of the effort. The local community has also been attentive, supportive and involved in the development phase of the project. The site selected in conjunction with the Planning Department of East Providence is zoned I-3, heavy industrial. Utility plants are a permitted use. Newbay has met with the elected officials of East Providence and is addressing all concerns of the local community. Newbay continues to invite advice from the local community in areas such as landscaping, water usage, noise abatement, parking and safety.

At the June 22, 1987 press conference which was hosted at the Culling House in East Providence, Duane Day, Public Affairs Officer for the New England division of the United States Department of Energy, commended Newbay on the use of the circulating fluidized bed technology as the best available technology of its kind today, and for the selection of a domestic fuel source in an area which is heavily dependent on foreign fuel sources.

Dr. Clement Grisholm, Director of the Governor's Office of Energy Assistance, greeted Newbay with a letter from Governor DiPrete which he read aloud at the June press conference. The letter expressed the Governor's support of Newbay's attempt to build energy resources and applauded Newbay's professional manner in doing so.

The City of East Providence warmly welcomed Newbay into the community when the East Providence Zoning Board unanimously granted a height variance and an open coal storage variance to the project on July 29, 1987. Former Mayor Edward Doyle of East Providence and Town Council representatives Nancy Stevens and Paul Tavares attended the press conference. Afterward these town officials and other local representatives traveled to the site on Dexter Road. Everyone expressed their support for the project at that I-3 zoned site.

It seems that of the numerous public hearings and discussions that have transpired during the past two year development phase of the Newbay Project, this letter from the Blackstone Park Improvement Association represents the only as yet unresolved concerns. We direct your attention to Exhibit A which shows Ms. Sgouros home to be over 4,000 feet from the project site. Distance and prevailing winds serve to mitigate almost all environmental impact from the plant to her neighborhood.

The boiler which features circulating fluidized bed technology, is the latest and cleanest form of burning fossil fuels. In terms of equivalent heat output from the boiler, the facility will have one of the cleanest stacks in the State of Rhode Island, and one of the three cleanest stacks in New England, for criteria pollutants such as oxides of sulfur, oxides of nitrogen and total suspended particulates. For the above three pollutants, Newbay has volunteered to impose limits which are more than 30 percent below Federal mandated levels for all new sources.

The design also incorporates a water management system, which minimizes water usage. Maximum re-use of water effluent from all sources, coupled with strict control for all systems will be incorporated in the design. All water effluent, will be treated before discharge, and will be in full compliance with a state approved water discharge permit.

The Newbay Cogeneration Facility offers economic opportunity to the State of Rhode Island. The facility will bring urgently needed power to a rapidly growing, energy-deficient community. The construction phase will employ over 200 skilled workers and over 50 permanent employees once the facility is operational. The total project cost is currently estimated at \$120,000,000 and is thus expected to be one of the largest taxpayers in East Providence.

We believe this is a good project which benefits all the citizens of Rhode Island. A healthy Rhode Island economy requires dependable, clean, low cost, power. I hope Ms. Sgouros' "not in my backyard" attitude changes when she considers the energy shortages facing the region and the positive effect the investment and jobs will have on the Rhode Island economy.

Sincerely,



Howard F. Bovers
President

Copies: Governor Edward D. DiPrete
Senator Sean Coffey
Senator Victoria Lederberg
Representative Linda Kushner
Council President Nicholas Easton
Councilman Malcolm Farmer
Councilwoman Carolyn Brassil

Save the Bay
Ms. Sgouros

HFB/dl
attachments