

**A toxic waste source reduction
program for Buzzards Bay**

prepared by the

Buzzards Bay Project

**through the
Massachusetts Office of Coastal Zone Management**

**in conjunction with the
Massachusetts Executive Office of Environmental Affairs,
Office of Technical Assistance,**

**and the
Massachusetts Department of Environmental Protection**

June 22, 1992

Management Plan is a wide-ranging document that addresses all aspects of pollution in Buzzards Bay. Three Buzzards Bay Communities working with the Buzzards Bay Project recently won an "EPA Administrator's 1992 Award for Pollution Prevention" for their efforts to prevent nitrogen pollution from entering a coastal embayment. These communities were implementing the Nitrogen Management Strategy outlined in the Buzzards Bay CCMP.

A major focus of the Buzzards Bay Project and a potentially significant threat to human health and the environment, is the contamination of seafood, sediments, and water by toxic substances. One of the eleven action plans included in the Buzzards Bay CCMP is "Reducing Toxic Pollutants". The key element in this action plan is the establishment of a toxic waste source reduction and pre-treatment program for the industries discharging toxic wastes into and around Buzzards Bay. This proposed project will implement some key recommendations in the Buzzards Bay CCMP.

Southeastern Massachusetts is one of the most economically depressed areas in the country. Unemployment for the greater New Bedford area topped 16% this past winter, and the industries (mostly older manufacturing, textile, and plating operations) do not have the technical or financial resources to design toxic waste source reduction programs. The source reduction program will not only help these industries comply with state and federal regulations and goals for toxic waste reduction, but it also will help many industries become more efficient and hence, with their cost savings become more competitive.

Massachusetts Office of Technical Assistance

In 1985, the Office of Technical Assistance (OTA) was established to provide onsite technical assistance in source reduction to hazardous waste generators, to organize workshops and annual conferences, and distribute publications on source reduction. To date the OTA has had considerable success in its toxic reduction efforts. In 1986, OTA worked with the jewelry plating industry in the Taunton/Attleboro area on a pilot, onsite technical assistance source reduction project. Typical toxic wastes from the jewelry industry includes chlorinated solvents, heavy metals, cyanide, acids, and alkalies. In some respects the current proposed effort is similar to OTA's previous work, except that this proposed toxic use reduction program formally incorporates regulatory staff from the local POTWs, and the DEP, is focused on a coastal watershed participating in the National Estuary Program, and is expected to cover a wider range of industries, as well as commercial and institutional toxic waste operations.

Key to the past success of OTA's efforts has been the participation of a large number of local and regional organizations, and the formation of a Source Reduction Advisory Group of industrial representatives that provided technical expertise and promoted industrial participation. A total of 76 jewelry operations were identified in the Taunton/Attleboro area, 46 of which were visited to look for source reduction opportunities, and 21 of those had detailed inventories completed. Based on these inventories, OTA recommended various process changes that resulted in significant strides in source reduction.

In the summer of 1989, OTA began its three-year Central Massachusetts Pollution Prevention Project, a technical assistance project that involved businesses in the manufacturing SIC

The program is expected to greatly increase the hazardous waste source reduction efforts of the generators in the area, and prevent toxic pollutants from being discharged to the water, air, and land. The BBP, DEP, and OTA are in an excellent position to insure that this effort will be successful.

2. To Take a Multimedia Approach to Reducing Toxic Pollution of the Bay

Toxic inputs from all media have the ability to threaten water quality in Buzzards Bay. Toxic wastes enter Buzzards Bay through sewage treatment plant discharges, direct industrial discharges, combined sewer overflows, stormwater outfalls, groundwater transport, and atmospheric deposition. For example, past industrial incineration, dumping and discharging of PCBs have resulted in New Bedford Harbor being designated a marine Superfund site; one of only two marine superfund sites in the nation. Once in the marine environment, these kinds of toxic materials can be extremely difficult to remove and the cost of ongoing PCB remediation efforts is expected to exceed \$100,000,000.

OTA has experience in all possible methods of media transport of toxics and this knowledge will be drawn upon. The DEP is the regulatory authority in the state for all types of media discharge. The local POTWs who regulate, to varying degrees in cooperation with DEP and EPA, industrial discharge to the sewers also have considerable experience as well as local information on this topic.

3. Consistent with State and Federal Efforts

As stated previously, funding of this program will greatly assist implementation of the recommendations contained in the Buzzards Bay CCMP. A cornerstone of our efforts will be to form a Regional Advisory Committee made up of federal, state, regional, and local representatives to guide this toxic waste source reduction project by helping to set goals, involve local industries, and identify implementation strategies for source reduction that build on existing efforts. The committee's local representatives will also play a key role in helping to establish a pollution prevention ethic within the local industries and thus build a new initiative for source reduction.

Federal

Through these activities, the program will assist the EPA's Industrial Toxics Project meet its 1995 goal of a 50% reduction in the release of targeted chemicals. Aerovox Incorporated, which is on the initial list of companies contacted for the EPA's Industrial Toxics Project, will be encouraged to participate significantly in the project.

State

The Toxics Use Reduction Act provides for assistance and regulatory mandates for encouraging source reduction of hazardous waste. This project will, in turn, help the state reach its goal of a 50% reduction in toxic waste, through source reduction, by the year 1997.

These source reduction efforts will help manufacturers come into compliance with the state's Toxic Use Reduction Act. The source reduction efforts will expand the ongoing state-wide pollution prevention efforts of the OTA and DEP, and also to help prevent the necessity of future Superfund cleanup activities also implemented by DEP in the area.

Bedford Chamber of Commerce, and the Pretreatment Programs of the New Bedford, Dartmouth, and Fairhaven POTWs. Each of these organizations will be expected to participate in the Regional Advisory Committee on the Project. SRPEDD has been actively involved in source reduction efforts in the Taunton/Attleboro area and has valuable expertise in this area as well as valuable local and regional contacts, and we will use them as our source of workshop facilitators. The pretreatment programs of the POTW's are likely to have the best available local information on which industries toxic reduction efforts should be focused.

As well as coordinating with multi-media compliance activities and improving compliance with the state's Toxic Use Reduction Act, this pollution prevention program will also work closely in other ways with the DEP regulatory program, and where possible help facilitate its implementation. This would include distributing DEP approved handouts on regulatory requirements for industry and also having DEP representatives speak at some of the workshops.

5. To Produce Data for Measuring this Project's Success and to Inform Development of Other State and Federal Source Reduction Efforts.

There are a wide array of measures of success that will be employed. First, the Project will document the number of industries, commercial establishments, and institutions that participate in the workshops. The Project will also keep track of the number of on-site visits performed. These on-sites will be followed up with questionnaires and telephone calls three to six months after the on-site, to determine what changes have occurred because of the site visit and the actual reduction in toxic use that has resulted because of the visit. For certain companies showing a high level of participation with the Project, information will be collected on the quantity of hazardous materials purchased and disposed before and after adoption of the recommendations of the onsite visit. This information will document the money saved by that particular company through pollution prevention efforts.

The monitoring required under NPDES permits will also be used to document reductions in the amount of toxic chemicals being discharged to surface waters. The information gathered in the toxic audits may also be useful when NPDES permits are being reviewed and updated.

The New Bedford POTW currently has an EPA approved pretreatment program that requires extensive testing of industrial inputs into the sewer system. Currently the program has 84 permitted industries with at least 43 testing on at least a monthly basis and some as frequently as weekly. The information generated by these testing requirements will be collected and analyzed to document the success of pollution prevention activities in the waste streams of certain companies, as well as to help demonstrate the city-wide success of this proposed program.

6. To Disseminate Information

Our results will be published in a peer reviewed journal as well as in Environmental Newsletters like EPA's "Pollution Prevention News", the "Northeast Waste Management Officials Association Newsletter", and various MA Watershed Association Newsletters. We will also request time at a State Pollution Prevention Roundtable Meeting to present the

of the three POTWs in the region. This advisory committee will also have representatives from the Buzzards Bay Project, Office of Technical Assistance, Southeast Regional Planning and Economic Development District, and possibly the Department of Environmental Protection.

C. Identify Key Businesses and Survey Their Needs

Through state, regional, and local contacts from the advisory committee, as well as other information sources, the Program Coordinator will identify specific companies/businesses that will be targeted by the Program. These businesses will be surveyed to determine what they feel their needs are, and this information will be used to better organize and focus the workshop series, printed material distribution, and onsite source reduction visits.

D. Organize Workshops

A series of workshops will be scheduled that cover various topics of hazardous waste use, management, and source reduction. The Program Coordinator with the help of the OTA and DEP and the local POTWs will identify approximately 40 firms in the area who will be targeted for participation in the workshop series. Other participants in the workshop series will include important local government officials, environmental organizations, and other interested public groups. Workshop speakers will include the Program Coordinator, OTA, DEP, EPA, representatives from firms with successful source reduction programs, as well as experts with specialized knowledge in area pertinent to the workshop.

During the first year approximately four workshops will be held, and approximately six more will be held the following year and a half. Initially workshop topics will be selected by OTA and DEP, but later will be held on topics suggested by the companies attending the workshops.

E. Develop and Distribute Printed Material

The program with the help of the OTA, DEP, and EPA will collect useful printed materials and distribute them through the program workshops and compliance inspections. In some cases original materials will be generated by the Program Coordinator with the help of OTA and DEP staff. The budget includes money to facilitate the printing of these materials for distribution.

F. Conduct Onsite Technical Assistance Regarding Source Reduction

Through the workshop series firms will be solicited to receive onsite technical assistance concerning source reduction. Efforts will be made to assist a cross section of different industries in the area in order to gain a wide variety of experience. It is also hoped that this cross section of industries will help the sharing of potential solutions between those firms receiving the assistance and those not selected. It is expected that most of the onsite assessments will take place after the first year of the program after a relationship has been established with some of the firms through the workshops. The workshops and printed materials will serve to acquaint the plant managers and responsible individuals with the Program, and to gain their active support in allowing the onsite toxic audits.

Firms undergoing multi-media compliance inspections will also be referred to OTA for

	Year 1		Year 2		Year 3 (6 Months)	
	State	Federal	State	Federal	State	Federal
Program Coordinator		\$39,000		\$40,600		\$21,100
Contract Specialists		\$14,000		\$31,000		\$17,000
Workshops ¹		\$6,000		\$12,000		\$3,000
BBP Supplies, postage, printing		\$2,000		\$4,000		\$2,000
BBP Secretarial Support		\$3,000		\$3,000		\$2,000
OTA Technical Assistance (See attached letter)	\$51,000		\$74,600		\$72,000	
DEP technical Assistance (See attached letter)	\$13,000		\$13,600		\$14,300	
Total	\$64,000	\$64,000	\$88,200	\$90,600	\$86,300	\$45,100

State three year total match: \$238,500. Federal three year total requested: \$198,700.

Notes:

¹\$2,000 will be transferred to the New Bedford chamber of commerce for workshop facilities and support, \$3,000 will be transferred to the Southeast Regional Planning and Economic District to provide workshop facilitators. OTA funding will cover other costs associated with implementing the workshop series.

MATCH

Match is being provided by the Office of Technical Assistance and the Department of Environmental Protection Southeast Office. All contributions and sources are being provided by the fees collected from industries under the Toxic Use Reduction Act and fines from the states toxic waste management programs. None of the program funds are being used to Match any other federal mounted. Appendix B contains letters of support from DEP & OTA.



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Boston, 02202

WILLIAM F. WELD
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SECRETARY

(617) 727-9800

June 22, 1992

Joe Costa
Buzzards Bay Project
2 Spring St.
Marion, MA 02738

Dear Joe:

This is to amend OTA's letter of last year detailing the match to which we will commit concerning the Buzzards Bay project that we have jointly proposed to EPA. We will commit to a total of \$51,000, instead of \$50,000. If there are any questions, please call.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard Reibstein".

Richard Reibstein
Assistant Director,
Office of Technical Assistance
for Toxics Use Reduction

THE BUZZARD BAY PROJECT TOXICS USE REDUCTION PROGRAM

A major focus of the *Buzzards Bay Project* and a potentially significant threat to human health and the environment, is the contamination of seafood, sediments, and water quality by **toxic substances**. One of the eleven action steps included in the *Buzzards Bay Comprehensive Conservation and Management Plan (CCMP)* is "**Reducing Toxic Pollutants**". To accomplish this goal, the *Buzzards Bay Project Toxics Use Reduction Program (BBP/TUR)* was established in 1993 as part of the implementation of the *Buzzards Bay CCMP*.

For the past three years the BBP/TUR has successfully accomplished the goal of helping industrial, institutional and commercial entities reduce the use and discharge of **toxic materials** to *Buzzards Bay* and its watershed and further assist them to comply with state and local discharge limits and meet **toxic use reduction** goals under the Commonwealth's **Toxic Use Reduction Act**

North End Business Association Pollution Prevention Project

The City of New Bedford, Massachusetts is a community faced with formidable economic and environmental challenges. Founded upon a large manufacturing and industrial base, the city has been in a slow economic decline for the past three decades. Many firms have gone out of business or moved their operations to other areas. In their wake they have left behind numerous abandoned mill sites, many unemployed workers, and a harbor which is contaminated to the extent of being designated a federal "Superfund Site". The remediation of the harbor and the surrounding environment has begun, but the amount of toxic material entering the harbor each day through the municipal treatment plant must be reduced to ensure the success of this long term remediation project and the continued improvement in the water quality of Buzzards Bay.

New Bedford is presently completing a state-of-the-art, secondary wastewater treatment plant in an effort to improve water quality. This plant will begin operations during the summer of 1996, and will greatly improve the quality of wastewater being released. While greatly improving water quality to Buzzards Bay, the construction and operation of this plant has dramatically increased water and sewer rates within the city.

It is getting increasingly difficult for New Bedford companies to remain economically competitive. Businesses and industries discharging to the municipal collection system are faced with the following challenges:

- 1.) Expected stricter industrial discharge limits.
The current discharge limits are based upon the NPDES discharge permit for the existing primary treatment plant. Three months after the secondary plant begins operations, the EPA will issue the City a new NPDES permit. The discharge limits for toxic materials is expected to be lowered substantially. This will force the City to lower the discharge limits for all industries discharging to the municipal collection system.
- 2.) Increasing water and sewage discharge fees.
Sewer and water rates have increased over 400% since 1988. There is an additional rate increase which will take effect July 1, 1996. When the plant begins operating, rates are again expected to increase. Certain industries, including textile, food processing and some manufacturing operations will be impacted by a new surcharge for BOD discharges. This surcharge is new and is in addition to the normal rates.
- 3.) Stricter city enforcement policy.
Accidental or careless release of toxic material by industry can negatively impact or temporarily destroy the efficiency of the secondary treatment process, resulting in the City failing to meet the discharge limits defined in the NPDES permit. Due to potential fines faced by the City of New Bedford for exceeding these discharge limits for toxic materials, the City will implement a stricter enforcement policy and higher fines for companies failing to meet set discharge limits.

Aggressive **Toxics Use Reduction (TUR)** efforts are essential in helping New Bedford industries overcome these challenges. As water and sewage costs increase, the relative costs to implement **TUR** techniques and technologies decrease. Most **TUR** efforts are associated with reduced water consumption, resulting in lower water and sewage costs. In addition, savings are often realized in lower chemical purchase costs, lower disposal costs, reduced permitting costs and reduced liability insurance costs. The end result is greater industrial efficiency, less regulatory requirements and improved water quality in New Bedford harbor and Buzzards Bay.

Due to the limited resources available to many companies operating in this area, there is a clear need for the services and resources which the Buzzards Bay Project **Toxics Use Reduction** Program makes available to assist them implement pollution prevention and **toxics use reduction** efforts. The **BBP/TUR** has worked successfully for the past 3 years helping companies achieve significant reductions in the use of **toxic** materials while improving their economic viability. We need to continue demonstrate that **toxics use reduction** efforts are an environmentally responsible and economically feasible strategy for the future.

ACCOMPLISHMENTS

The original grant proposal, fashioned after the recommendations presented in the Comprehensive Conservation & Management Plan, outlined an aggressive seven step format under which the **toxics use reduction** component of the Project would be achieved. These seven steps included: the hiring of a program coordinator; the formation of an advisory committee; identification of key businesses and a surveying of their needs; the development and facilitation of workshops; participation and initiation of on-site technical assistance visits to industry regarding **toxics use reduction**; and the reporting of progress and achievements on a periodic basis to respective interactive agencies. These steps have provided a basis of operations for the **BBP/TUR** Program, and all been successfully accomplished. (Reference attachment A)

In addition to the accomplishment of these seven steps outlined in the grant proposal, the **BBP/TUR** has conducted an industry outreach campaign. The goal of these outreach efforts has been to increase awareness of **toxics use reduction** techniques and the services we can provide companies to help them implement these techniques. We have participated in forums with chamber of commerce groups, professional trade associations and special interest lobbying efforts specifically targeting environmental/reduction concerns. Participation in such forums has helped us establish strong recognition and credibility to the program's commitment to assist industries as a non-regulatory state agency. In addition, we produce a monthly newsletter designed to educate companies about **toxics use reduction** strategies and techniques. Through this newsletter, called "Options", we provide companies with a information about **TUR** issues, including new technologies and techniques, changes in regulations, training opportunities, workshops, industry events and local **TUR** accomplishments. The newsletter is mailed to approximately 150 companies on a monthly basis, and generates many request for information from these companies. (Reference attachment B)

Through the newsletter we are able to inform companies about available **pollution prevention**

grant opportunities and can assist them with the preparation of the grant application process. As the result of an article in "Options" notifying companies of the EPA *NICE*³ Industry Grant Program, a local textile manufacturer requested information about the grant. We provided the necessary information and encouraged them to apply. We assisted them in their application, and helped them submit the application. They were recently awarded a grant of \$425,000 to develop and implement an innovative technology which increases production, reduces energy consumption and produces less waste. They would not have been made aware of this opportunity without the **BBP/TUR** outreach efforts. (Reference attachment C)

One of the major goals of the **BBP/TUR** is to provide a "clearing house" of information on **pollution prevention** and **toxics use reduction** issues. Many requests for information are the results of articles in our newsletter. We are able to provide companies with more than 500 publications on a wide variety of industries and technologies. In addition to these publications, we have access to tremendous amounts of industry specific information on **TUR** issues which can be accessed electronically. We have experience performing searches for companies on specific questions, and have put together a reference guide, called the Electronic Environmental Network, for companies with the necessary electronic resources to access these databases themselves. (Reference attachment D)

The **BBP/TUR** developed and maintains a database of over 150 companies, businesses and institutions in the greater New Bedford area which are hazardous material generators. This database includes large manufactures in industries listed under Standard Industrial Classification (SIC) Codes 20-39, as well as large and small quantity generators in a variety of other industries. An assessment was made of industrial waste streams by studying influent and effluent data from the New Bedford wastewater treatment plant to help identify specific industries to target our assistance activities towards based upon the amount of **toxic** materials discharged to the POTW. This information has helped in the selection and prioritization of our industry specific workshop series. We have sponsored 13 workshops to help industries address and implement pollution prevention and **toxics use reduction** issues efforts. These workshops address specific **TUR** issues and provide participants with information and advise on the issue. These workshops also provide the opportunity for participants to meet technical and regulatory experts who are able to provide them with individual assistance. Over this period, we have conducted or assisted in over 30 site visits to local businesses to offer or provide technical assistance to implement **TUR** planning and activities. (Reference attachment E)

Another effort in our industry outreach campaign has been the promotion of local "TUR success stories". We have actively encouraged local firms to apply for a state-wide awards program for outstanding achievement in **toxics use reduction**, called the Governors' Award Program, and have assisted in the preparation of seven award applications by local companies. In both 1994 and 1995, local manufactures with whom we have worked with to implement **TUR** efforts were recipients of the *Governor's Award for Toxics Use Reduction*. In both cases, the companies were made aware of the award program by the **BBP/TUR** and were assisted with their application packages. The Program coordinated local recognition ceremonies to highlight these successes. Finally, cases studies have been created on each of these company efforts to demonstrate the benefits of **TUR** activities to other companies. (Reference attachment F)

PROJECT BACKGROUND

Buzzards Bay Project

Buzzards Bay Project Toxics Use Reduction Program

Buzzards Bay was recognized by Congress in 1984 as an "Estuary of National Significance", and for this reason was selected for intensive study to develop management recommendations to protect its vital economic, ecological, and aesthetic resources. In 1985 the Buzzards Bay Project began to characterize and assess water quality problems in the Bay, and make management recommendations for the protection and improvement of the Bay's water quality and resources. In 1988, the estuary formally joined the U.S. EPA's National Estuary Program. The Project is jointly funded and administered by the Commonwealth of Massachusetts through the Coastal Zone Management Office and the U.S. Environmental Protection Agency.

In 1991 the BBP completed its CCMP for Buzzards Bay which was approved by Massachusetts Governor William Weld and then EPA Administrator William Reilly. This Management Plan is a wide-ranging document that addresses all aspects of pollution in Buzzards Bay. The Project coordinates with state, federal, and local authorities to implement regional pollution prevention and remediation strategies for the Bay and its watershed.

Southeastern Massachusetts is one of the most economically depressed regions in the country. This area, specifically New Bedford, was a leading employment base during the manufacturing/industrial area and is now the highest in this region in unemployment. Since the original grant was written in June 1992, unemployment topped 16%, with a current unemployment rate of 14% - with a very large constituency that no longer is reported due to exhausted benefits. Manufacturing continues to be the single largest industry employer, and is faced with the greatest challenges in order to continue and maintain economically competitive operations. Although manufacturing still provides the greatest opportunity for employment in the community - numerous plants have closed or are considering closure due to projected market trends and increased availability of "off-shore" production capabilities. This emphasis on alternative production resources coupled with high utility rates and specifically environmentally-clean driven process changes attributed to regulations tends to solidify a mindset of inability of the area to sustain manufacturing. These challenges highlight the need for programs like the Buzzards Bay Project Toxics Use Reduction Program which bring much needed resources to companies to help them reduce the toxic materials they use in their operation and also improve their efficiency and economic competitiveness.

***OPTIONS-a monthly
newsletter of the program***

***The Governor's Award
for
Toxic Use Reduction***

- 1994 Johnson & Johnson
- 1995 Star Plating Company
- 1996 4 submissions pending

***On-site technical assistance
visits to local industry***

A cooperative partnership with
the Massachusetts Office of
Technical Assistance for Toxics
Use Reduction



Buzzards Bay Project Toxic Use Reduction Program

***Community outreach
& inter-agency relationships***

- City of New Bedford - Wastewater Division
- Northeast Waste Management Officials Assn.
- New Bedford Area Chamber of Commerce
- New Bedford Free Public Library

***The Buttonwood
Workshop Series***

12 workshops over the past 24 months
for industry, institutions, and education
on pollution prevention & toxics use
reduction methods and innovations

***The preparation and
dissemination of informational
packages***

PITSTOPS - environmental
awareness for the auto body
& repair industry



Buzzards Bay Project - Toxics Use Reduction Program

Program Milestones and Time Line

(proposed in "A Toxic Waste Source Reduction Program for Buzzards Bay - June 22, 1992)

Month	2	3	4	6	8	10	12	14	16	18	20	22	24	28	30
Actual Date	6/93	8/93	9/93	10/93	12/93	2/94	4/94	6/94	8/94	10/94	12/94	2/95	4/95	6/95	8/95
Activity															
Coordinator Hired	*														
Advisory Committee formed	-----*														
Key Businesses ID'ed & surveyed	-----*														
Workshops (10)		*	*		*	*		*	*		*	*		*	*
On-site Plant Visits	-----as many as needed-----														
Printed Materials	-----as needed-----														
Progress Reports				*			*			*			*		*
				(6)			(12)			(18)			(24)		(30)

Red - Proposed
Black - Actual
(√) - Task Complete

[illegible]



Buzzards Bay Project - Toxics Use Reduction Program

Program Milestones and Time Line

Red - Proposed
 Black - Actual
 (✓) - Task Complete

Month	31	32	33	34	35	36	37	38
Actual Date	9/95	10/95	11/95	12/96	1/96	2/96	3/96	4/96
Coordinator Hired		(✓)						
Program Intern - promoted to Regional Planner				(✓)				
Program Intern (2) hired								
Workshops (10)								
Wastewater Treatment in New Bedford				*			*	
Wastestream Mngt. for Fish Processing				(December 14, 1995)			(April 11, 1996)	



Buzzards Bay Project - Toxics Use Reduction Program

Program Milestones and Time Line

Red - Proposed
Black - Actual
(√) - Task Complete

Month	2	3	4	6	8	10	12	14	16	18	20	22	24	28	30
Actual Date	6/93	8/93	9/93	10/93	12/93	2/94	4/94	6/94	8/94	10/94	12/94	2/95	4/95	6/95	8/95

On-site Plant Visits:

Johnson & Johnson, Revere Sink,
Polaroid, True Grit, New Bedford
POTW, Fibre Leather, Acushnet
Company, Dartmouth Finishing,
New Bedford Office of Economic
Development, Polar Packaging,
Benetti Printing, Cameo Curtains,
St. Luke's Hospital

-----as many as needed-----

(√) -26 visits to date

Printed Materials

"OPTIONS"- newsletter

-----as needed-----

* * * * *
(8/93) (11/93) (3/94) (4/94) (6/94) (8/94) (10/94) (11/94) (12/94) (2/95) (5/95) (6/95) (8/95)

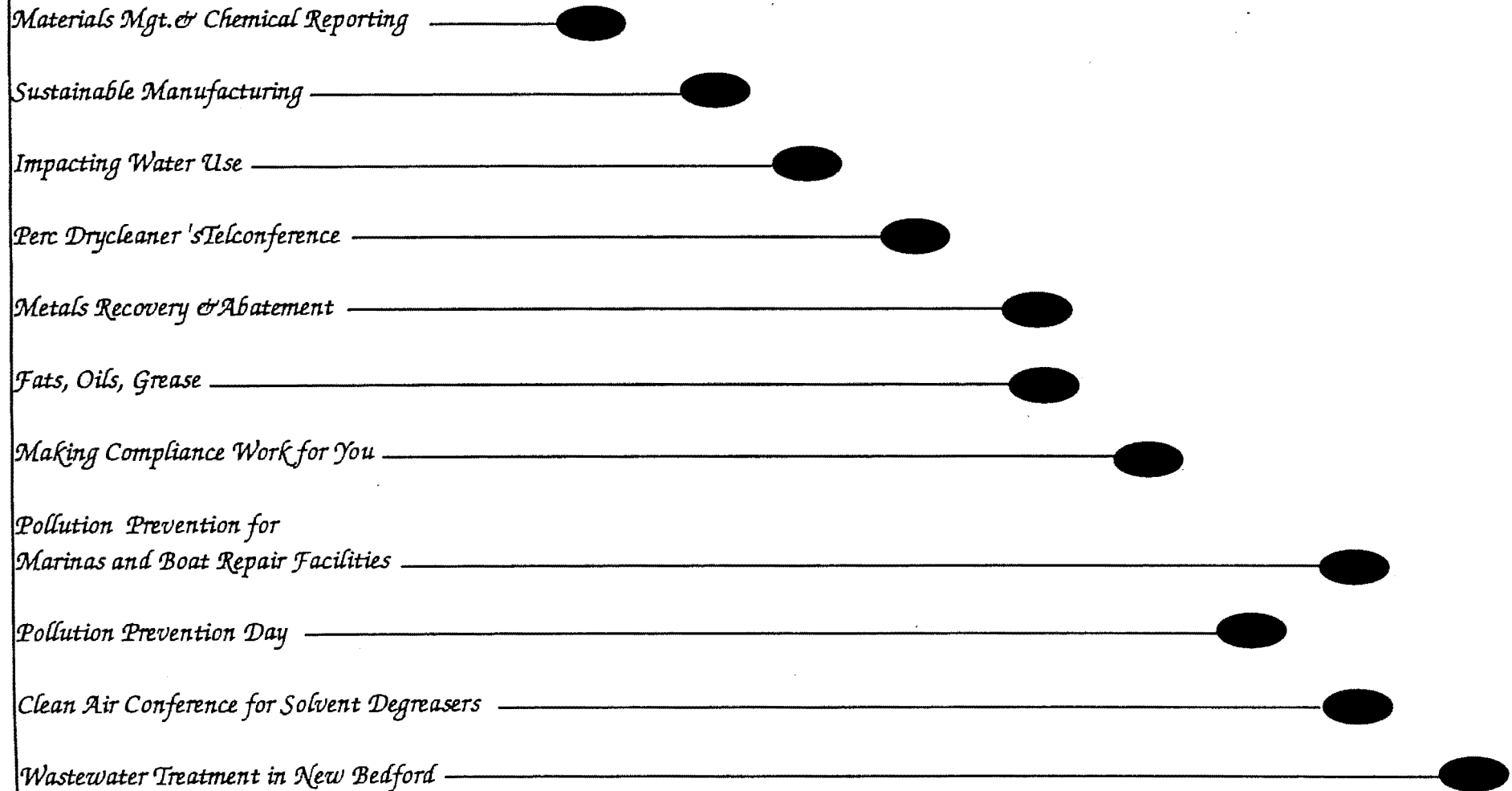
Progress Reports

* * * * *
(6) (12) (18) (24) (30)
(√) (√) (√) (√) (√)

BBP/TUR TIMELINE

Workshops

12/93 2/94 4/94 5/94 6/94 1/95 3/95 5/95 12/95



North End Business Association Pollution Prevention Project

Objectives of Toxics Use Reduction Effort of the Buzzards Bay Project Marion, Massachusetts

Service Area: New Bedford Harbor/Buzzards Bay

Identification of Waste Streams: Chemicals, Industry and Commerce

The BBP/TUR will continue to identify the sources and content of industrial wastestreams throughout New Bedford. This information will be used identify specific companies and industries with which to target TUR efforts. These efforts include site visits to facilities faced with various TUR issues, performing pollution prevention and water conservation audits, the development and distribution of educational resource and reference documents, and the continued compilation of local TUR case studies. The BBP/TUR provides an immediate "first response" to any request for assistance from a local company, and through our association with the Massachusetts Office of Technical Assistance, we can provide the full technical assistance of this non-regulatory state agency.

Workshop Series

Workshops provide the mechanism to assist selected industry groups and provide specific, technical information on TUR and pollution prevention issues. Workshop topics are generated by analyzing industrial wastestream monitoring information, by input from the New Bedford Industrial Pretreatment Coordinator, and by input from local industry representatives. Workshops are in a half-day format and try to address specific TUR issues or problems faced by that particular industry. Industry experts are utilized to offer advice and answer questions from participants. Representatives of local, state and federal environmental agencies often participate to help answer regulatory and permitting questions,

Newspaper Series

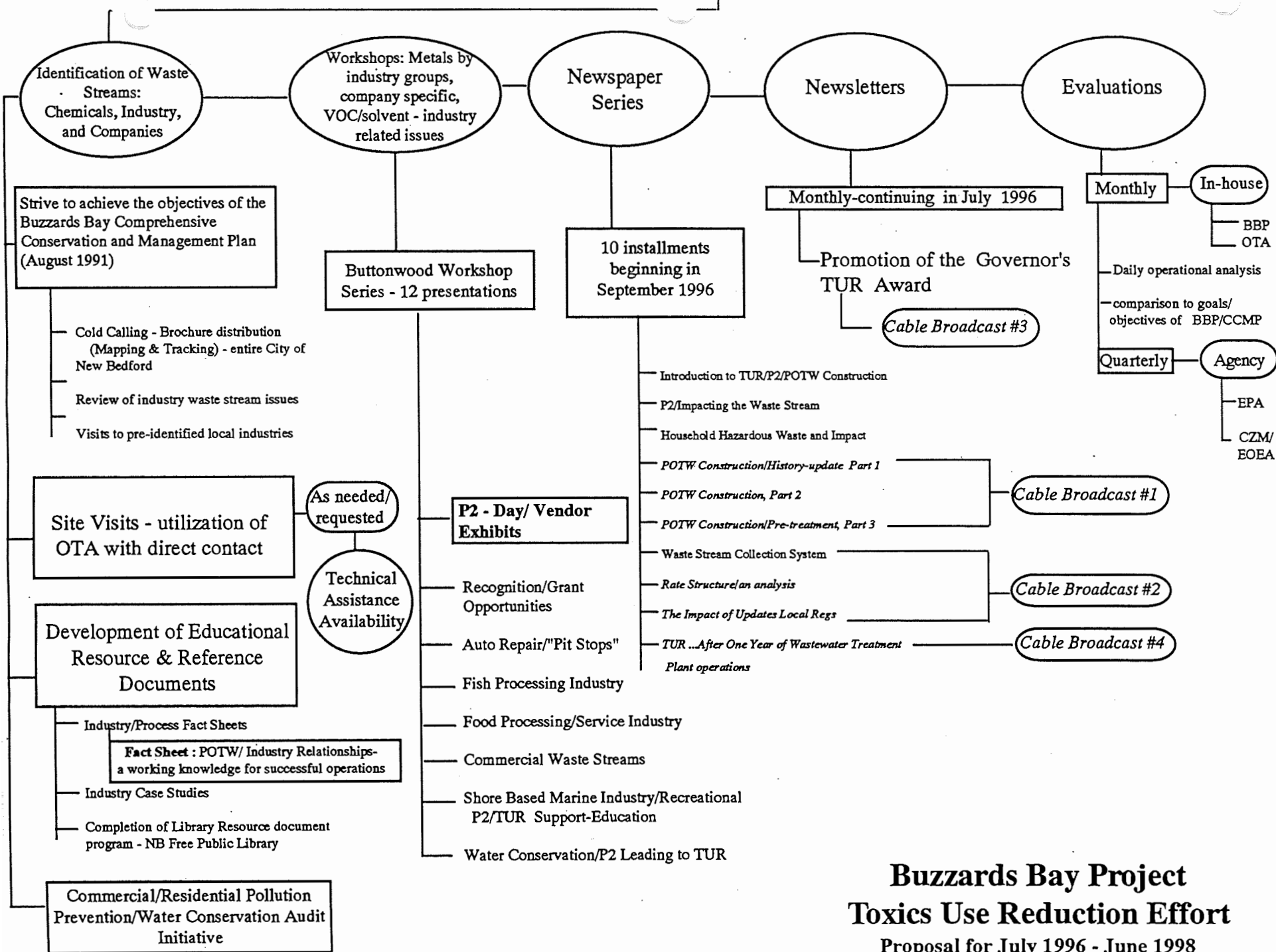
Newspaper articles are used to educate the public about toxics use reduction efforts; the need for it, laws and regulations pertaining to the use and disposal of toxic materials, and local efforts at implementing TUR efforts. The articles are also used to generate interest in toxic use reduction and pollution prevention efforts at home and in the workplace. They help us maintain a public presence in the City of New Bedford and provide recognition to companies who are working hard to implement TUR efforts.

Newsletters

Newsletters are the best vehicle to communicate regularly with our database of over 150 local companies. We provide them with timely information on specific TUR issues, including; changes in laws and regulations, developments in TUR technologies and techniques, training opportunities and successful local efforts. Through the newsletters we are able to maintain a constant industry awareness about toxics use reduction efforts and about the services we can provide to companies. Plans are being made to utilize local Public Broadcast Television for the presentation of a cable broadcast series. The series will spotlight the history and construction of the secondary wastewater treatment plant in New Bedford, and the impacts this plant will have on local industry. The series will highlight the strong need for pollution prevention and toxics use reduction efforts and will introduce the public to the BBP/TUR and the services which we provide to the community.

Evaluations

Evaluations are used to review and measure progress made towards the goals and objectives of the BBP/TUR. They provide a mechanism to adjust and change our efforts to more efficiently achieve the goals of the Program. In addition to daily operational analysis of our operations, monthly reports are made to the BBP Executive Director, Joseph Costa. Quarterly reports are generated and presented to the Massachusetts Coastal Zone Management, Office of Technical Assistance, the Massachusetts Executive Office of Environmental Affairs and the U.S. Environmental Protection Agency.



**Buzzards Bay Project
Toxics Use Reduction Effort**
Proposal for July 1996 - June 1998

Table of Contents- Appendix

A - Grant

The original grant document that the toxic use reduction program was funded under in June of 1992.

B - Newsletters

Included are several samples of our monthly newsletter "OPTIONS".

C - NICE³

An explanation of the National Industrial Competitiveness through Energy Environment and Economics program.

D - EEN

This is a listing compiled by the BBP/TUR, of the electronic environmental networking resources available.

E - Buttonwood Workshop Series

A listing of the TUR sponsored workshop topics and an explanation of each.

F - Governor's Award

The promotional brochure we distribute in order to encourage companies to submit applications for this award are included as well as past accomplishments.

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Massachusetts Department of Environmental Protection**

June 22, 1992

Management Plan is a wide-ranging document that addresses all aspects of pollution in Buzzards Bay. Three Buzzards Bay Communities working with the Buzzards Bay Project recently won an "EPA Administrator's 1992 Award for Pollution Prevention" for their efforts to prevent nitrogen pollution from entering a coastal embayment. These communities were implementing the Nitrogen Management Strategy outlined in the Buzzards Bay CCMP.

A major focus of the Buzzards Bay Project and a potentially significant threat to human health and the environment, is the contamination of seafood, sediments, and water by toxic substances. One of the eleven action plans included in the Buzzards Bay CCMP is "Reducing Toxic Pollutants". The key element in this action plan is the establishment of a toxic waste source reduction and pre-treatment program for the industries discharging toxic wastes into and around Buzzards Bay. This proposed project will implement some key recommendations in the Buzzards Bay CCMP.

Southeastern Massachusetts is one of the most economically depressed areas in the country. Unemployment for the greater New Bedford area topped 16% this past winter, and the industries (mostly older manufacturing, textile, and plating operations) do not have the technical or financial resources to design toxic waste source reduction programs. The source reduction program will not only help these industries comply with state and federal regulations and goals for toxic waste reduction, but it also will help many industries become more efficient and hence, with their cost savings become more competitive.

Massachusetts Office of Technical Assistance

In 1985, the Office of Technical Assistance (OTA) was established to provide onsite technical assistance in source reduction to hazardous waste generators, to organize workshops and annual conferences, and distribute publications on source reduction. To date the OTA has had considerable success in its toxic reduction efforts. In 1986, OTA worked with the jewelry plating industry in the Taunton/Attleboro area on a pilot, onsite technical assistance source reduction project. Typical toxic wastes from the jewelry industry includes chlorinated solvents, heavy metals, cyanide, acids, and alkalies. In some respects the current proposed effort is similar to OTA's previous work, except that this proposed toxic use reduction program formally incorporates regulatory staff from the local POTWs, and the DEP, is focused on a coastal watershed participating in the National Estuary Program, and is expected to cover a wider range of industries, as well as commercial and institutional toxic waste operations.

Key to the past success of OTA's efforts has been the participation of a large number of local and regional organizations, and the formation of a Source Reduction Advisory Group of industrial representatives that provided technical expertise and promoted industrial participation. A total of 76 jewelry operations were identified in the Taunton/Attleboro area, 46 of which were visited to look for source reduction opportunities, and 21 of those had detailed inventories completed. Based on these inventories, OTA recommended various process changes that resulted in significant strides in source reduction.

In the summer of 1989, OTA began its three-year Central Massachusetts Pollution Prevention Project, a technical assistance project that involved businesses in the manufacturing SIC

The program is expected to greatly increase the hazardous waste source reduction efforts of the generators in the area, and prevent toxic pollutants from being discharged to the water, air, and land. The BBP, DEP, and OTA are in an excellent position to insure that this effort will be successful.

2. To Take a Multimedia Approach to Reducing Toxic Pollution of the Bay

Toxic inputs from all media have the ability to threaten water quality in Buzzards Bay. Toxic wastes enter Buzzards Bay through sewage treatment plant discharges, direct industrial discharges, combined sewer overflows, stormwater outfalls, groundwater transport, and atmospheric deposition. For example, past industrial incineration, dumping and discharging of PCBs have resulted in New Bedford Harbor being designated a marine Superfund site; one of only two marine superfund sites in the nation. Once in the marine environment, these kinds of toxic materials can be extremely difficult to remove and the cost of ongoing PCB remediation efforts is expected to exceed \$100,000,000.

OTA has experience in all possible methods of media transport of toxics and this knowledge will be drawn upon. The DEP is the regulatory authority in the state for all types of media discharge. The local POTWs who regulate, to varying degrees in cooperation with DEP and EPA, industrial discharge to the sewers also have considerable experience as well as local information on this topic.

3. Consistent with State and Federal Efforts

As stated previously, funding of this program will greatly assist implementation of the recommendations contained in the Buzzards Bay CCMP. A cornerstone of our efforts will be to form a Regional Advisory Committee made up of federal, state, regional, and local representatives to guide this toxic waste source reduction project by helping to set goals, involve local industries, and identify implementation strategies for source reduction that build on existing efforts. The committee's local representatives will also play a key role in helping to establish a pollution prevention ethic within the local industries and thus build a new initiative for source reduction.

Federal

Through these activities, the program will assist the EPA's Industrial Toxics Project meet its 1995 goal of a 50% reduction in the release of targeted chemicals. Aerovox Incorporated, which is on the initial list of companies contacted for the EPA's Industrial Toxics Project, will be encouraged to participate significantly in the project.

State

The Toxics Use Reduction Act provides for assistance and regulatory mandates for encouraging source reduction of hazardous waste. This project will, in turn, help the state reach its goal of a 50% reduction in toxic waste, through source reduction, by the year 1997.

These source reduction efforts will help manufacturers come into compliance with the state's Toxic Use Reduction Act. The source reduction efforts will expand the ongoing state-wide pollution prevention efforts of the OTA and DEP, and also to help prevent the necessity of future Superfund cleanup activities also implemented by DEP in the area.

Bedford Chamber of Commerce, and the Pretreatment Programs of the New Bedford, Dartmouth, and Fairhaven POTWs. Each of these organizations will be expected to participate in the Regional Advisory Committee on the Project. SRPEDD has been actively involved in source reduction efforts in the Taunton/Attleboro area and has valuable expertise in this area as well as valuable local and regional contacts, and we will use them as our source of workshop facilitators. The pretreatment programs of the POTW's are likely to have the best available local information on which industries toxic reduction efforts should be focused.

As well as coordinating with multi-media compliance activities and improving compliance with the state's Toxic Use Reduction Act, this pollution prevention program will also work closely in other ways with the DEP regulatory program, and where possible help facilitate its implementation. This would include distributing DEP approved handouts on regulatory requirements for industry and also having DEP representatives speak at some of the workshops.

5. To Produce Data for Measuring this Project's Success and to Inform Development of Other State and Federal Source Reduction Efforts.

There are a wide array of measures of success that will be employed. First, the Project will document the number of industries, commercial establishments, and institutions that participate in the workshops. The Project will also keep track of the number of on-site visits performed. These on-sites will be followed up with questionnaires and telephone calls three to six months after the on-site, to determine what changes have occurred because of the site visit and the actual reduction in toxic use that has resulted because of the visit. For certain companies showing a high level of participation with the Project, information will be collected on the quantity of hazardous materials purchased and disposed before and after adoption of the recommendations of the onsite visit. This information will document the money saved by that particular company through pollution prevention efforts.

The monitoring required under NPDES permits will also be used to document reductions in the amount of toxic chemicals being discharged to surface waters. The information gathered in the toxic audits may also be useful when NPDES permits are being reviewed and updated.

The New Bedford POTW currently has an EPA approved pretreatment program that requires extensive testing of industrial inputs into the sewer system. Currently the program has 84 permitted industries with at least 43 testing on at least a monthly basis and some as frequently as weekly. The information generated by these testing requirements will be collected and analyzed to document the success of pollution prevention activities in the waste streams of certain companies, as well as to help demonstrate the city-wide success of this proposed program.

6. To Disseminate Information

Our results will be published in a peer reviewed journal as well as in Environmental Newsletters like EPA's "Pollution Prevention News", the "Northeast Waste Management Officials Association Newsletter", and various MA Watershed Association Newsletters. We will also request time at a State Pollution Prevention Roundtable Meeting to present the

of the three POTWs in the region. This advisory committee will also have representatives from the Buzzards Bay Project, Office of Technical Assistance, Southeast Regional Planning and Economic Development District, and possibly the Department of Environmental Protection.

C. Identify Key Businesses and Survey Their Needs

Through state, regional, and local contacts from the advisory committee, as well as other information sources, the Program Coordinator will identify specific companies/businesses that will be targeted by the Program. These businesses will be surveyed to determine what they feel their needs are, and this information will be used to better organize and focus the workshop series, printed material distribution, and onsite source reduction visits.

D. Organize Workshops

A series of workshops will be scheduled that cover various topics of hazardous waste use, management, and source reduction. The Program Coordinator with the help of the OTA and DEP and the local POTWs will identify approximately 40 firms in the area who will be targeted for participation in the workshop series. Other participants in the workshop series will include important local government officials, environmental organizations, and other interested public groups. Workshop speakers will include the Program Coordinator, OTA, DEP, EPA, representatives from firms with successful source reduction programs, as well as experts with specialized knowledge in area pertinent to the workshop.

During the first year approximately four workshops will be held, and approximately six more will be held the following year and a half. Initially workshop topics will be selected by OTA and DEP, but later will be held on topics suggested by the companies attending the workshops.

E. Develop and Distribute Printed Material

The program with the help of the OTA, DEP, and EPA will collect useful printed materials and distribute them through the program workshops and compliance inspections. In some cases original materials will be generated by the Program Coordinator with the help of OTA and DEP staff. The budget includes money to facilitate the printing of these materials for distribution.

F. Conduct Onsite Technical Assistance Regarding Source Reduction

Through the workshop series firms will be solicited to receive onsite technical assistance concerning source reduction. Efforts will be made to assist a cross section of different industries in the area in order to gain a wide variety of experience. It is also hoped that this cross section of industries will help the sharing of potential solutions between those firms receiving the assistance and those not selected. It is expected that most of the onsite assessments will take place after the first year of the program after a relationship has been established with some of the firms through the workshops. The workshops and printed materials will serve to acquaint the plant managers and responsible individuals with the Program, and to gain their active support in allowing the onsite toxic audits.

Firms undergoing multi-media compliance inspections will also be referred to OTA for

	Year 1		Year 2		Year 3 (6 Months)	
	State	Federal	State	Federal	State	Federal
Program Coordinator		\$39,000		\$40,600		\$21,100
Contract Specialists		\$14,000		\$31,000		\$17,000
Workshops ¹		\$6,000		\$12,000		\$3,000
BBP Supplies, postage, printing		\$2,000		\$4,000		\$2,000
BBP Secretarial Support		\$3,000		\$3,000		\$2,000
OTA Technical Assistance (See attached letter)	\$51,000		\$74,600		\$72,000	
DEP technical Assistance (See attached letter)	\$13,000		\$13,600		\$14,300	
Total	\$64,000	\$64,000	\$88,200	\$90,600	\$86,300	\$45,100

State three year total match: \$238,500. Federal three year total requested: \$198,700.

Notes:

¹\$2,000 will be transferred to the New Bedford chamber of commerce for workshop facilities and support, \$3,000 will be transferred to the Southeast Regional Planning and Economic District to provide workshop facilitators. OTA funding will cover other costs associated with implementing the workshop series.

MATCH

Match is being provided by the Office of Technical Assistance and the Department of Environmental Protection Southeast Office. All contributions and sources are being provided by the fees collected from industries under the Toxic Use Reduction Act and fines from the states toxic waste management programs. None of the program funds are being used to Match any other federal mounted. Appendix B contains letters of support from DEP & OTA.

NICE³

United States Department of Energy

1996 Award Recipient

**Brittany Dyeing & Printing
Corporation**

New Bedford, Massachusetts

**Innovative Textile Finishing
Process**

briefing by

The Buzzards Bay Project - Toxics Use Reduction Program

May 14, 1996
For Immediate Release
For Additional Information Contact:
Frederick M. Kalisz, Jr., Program Coordinator
Buzzards Bay Project - Toxics Use Reduction Program
2 Spring St.
Marion, MA 02738
(508) 748-3600
(508) 748-3962 - fax

The Buzzards Bay Project - Toxics Use Reduction Program is pleased to announce that Brittany Dyeing & Printing Corporation of New Bedford has been awarded a United States Department of Energy grant of \$425,000 to perform major process modifications necessary to implement innovative textile finishing. Preliminary notification was made to the Buzzards Bay Project by Congressman Barney Frank, who according to Project officials, has worked long and tirelessly to bring this economic development opportunity to the Whaling City. According to Frederick M. Kalisz, Jr., program coordinator for the Toxics Use Reduction component of the Project "Congressman Frank has worked with us since December in making sure Clinton Administration officials understood the impact that such innovative technology would make upon the local economy". The process introduced in the grant application will allow for the modernization of processes at Brittany which will make them more competitive in the global market. "We often hear of the need to compete in the global market - the results of this grant process will mean that Brittany will be a player equipped to compete in the global market" Kalisz said.

The grant program, NICE³ (National Industrial Competitiveness through Energy, Environment, Economics) provides funding to state and industry partnerships for projects that develop and demonstrate advances in energy efficiency and clean production

technologies. The NICE³ program is designed to improve competitiveness, foster energy efficiency, and reduce industrial wastes. Industry applicants must submit project proposals through a state energy, pollution prevention, or business development office. In Massachusetts, the grant process is administered by the Office of Technical Assistance (OTA) for Toxics Use Reduction of the Executive Office of Environmental Affairs. Once Brittany expressed interest, they participated in a workshop and plan submission assistance through the Office of Technical Assistance. "Brittany first learned of the grant program through the Buzzards Bay TUR newsletter which we publish monthly to local industry. Our staff then worked with company officials to connect with OTA staff and the process begun" Kalisz said. "We are thrilled with the selection of Brittany as one of only sixteen companies in the country this year - the Buzzards Bay Project TUR program was developed to be a "door opener" to local industry to just these types of opportunities, and it's obvious that it has been a success". The Buzzards Bay Project Toxics Use Reduction Program is an initiative which has been funded through the Office of Coastal Zone Management of the Executive Office of Environmental Affairs and by the United States Environmental Protection Agency's Pollution Prevention Incentive for States Program. Kalisz along with his staff of Steven McKenna and Kathryn Latimer work with industry in New Bedford that through the wastewater treatment system and through permitted discharge impact the waters of Buzzards Bay. The Buzzards Bay Project operates under the direction of Dr. Joseph Costa.

Brittany Dyeing & Printing Corporation will demonstrate a unique process that will more than double conventional textile processing rates. Traditional concepts concerning machine speed, chemical application, and machinery design are abandoned with this

innovative textile finishing process. The goal of this project will be to assemble equipment that can finish textiles with 75% less moisture than conventional finishing process, thus increasing the capacity of the textile machines. The entire cost of the innovative textile finishing process is anticipated to be nearly \$1.2 million with Brittany's share of the effort being nearly \$800,000.

Brittany Dyeing & Printing Corporation has been in business and the processing of textiles in the same location since 1939. Equipment, formulations, and processing methods have been updated through the years to adapt to different fibers, fabrics, and customer requirements. Currently, Brittany is one of the most modern finishing facilities in the United States. State of the art equipment, the latest technologies, and a dedicated staff of trained professionals keeps Brittany at the top of its craft. Brittany is uniquely qualified to implement the new finishing process because it is a recognized leader in high speed bleaching, printing, and inspection of fabric.

The Brittany team is lead by Kenneth Joblon as President and CEO. Mr. Joblon has been running the company, which was founded by his father, since 1972. The younger Joblon has overseen a retooling of the company that included the replacement of every piece of equipment in the plant over the last fifteen years. Brittany's technical staff is led by Robert Cruise who will act as Project Engineer for this project. Mr. Cruise is a graduate of Providence College with a Bachelor of Science degree in chemistry. He graduated Cum Laude and has been involved in textile finishing for over twenty years.

Formal presentation of grant awards will be made at a reception to be held on May 29, 1996 at the Rayburn House Office Building. Kenneth Joblon who will be in Washington

DC for this event is expected to meet with Secretary of Energy Hazel R. O'Leary who has been invited to address the recipients.

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Quick Reference Contact List

Buzzards Bay Project

Toxics Use Reduction Program:

Frederick M. Kalisz, Jr., Program Coordinator

(508) 748-3600 (office) 483-6885 (pager)

Steve Mckenna or Kathryn Latimer

(508) 748-3600

Brittany Dyeing & Printing Corporation

Kenneth Joblon, President & CEO

Robert Cruise, Project Engineer

(508) 999-3281

Office of Congressman Barney Frank

Peter Kovar - Washington, DC

(202) 225-5931

Office of Technical Assistance for Toxics Use Reduction

Dr. John Raschko

(617) 727-3260

NICE³
National Industrial Competitiveness through
Energy
Environment and Economics

The U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency jointly sponsor an innovative, cost sharing program to promote energy efficiency, clean production, and economic competitiveness in industry. The grant program, known as NICE³, provides funding to state/industry partnerships for projects that develop and demonstrates advances in energy efficiency and clean production technologies. Since 1991, NICE³ has sponsored 26 projects, totaling \$7.8 million dollars of DOE funding.

Industry applicants must submit project proposals through a state energy, pollution prevention, or a business development office. Funds are awarded to state/industry partnerships that can match the DOE/EPA federal funds at least dollar for dollar. Awardees receive a one - time grant of up \$400,000 for the proposed project. After the initial funding, the awardee is expected to commercialize the process or technology.



1996 NICE³ Recipient

Brittany Dyeing & Printing Corporation

In May of 1996, Brittany Dyeing and Printing Corporation of New Bedford, Massachusetts was notified by the United States Department of Energy that they had been selected as a demonstration project for the NICE³ program. The following is a summary of the application and award made to Brittany.

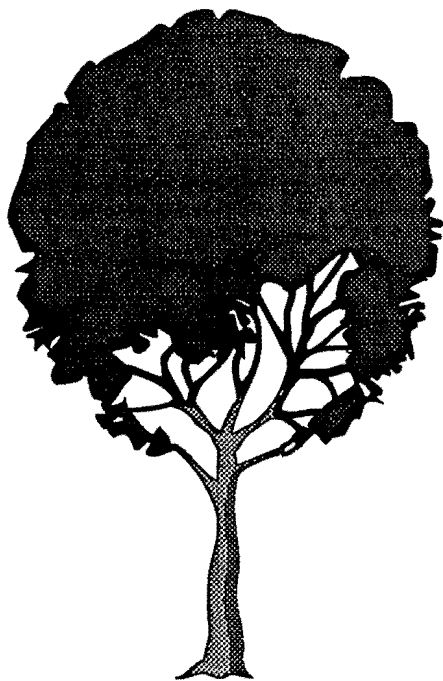
State: Massachusetts
Title of Project: Innovative Textile Finishing Process
State Grantee: Massachusetts Office of Technical Assistance
Contact at State: John Raschko, 100 Cambridge Street Suite 2109, Boston, MA 02202, (617) 727-3260, (617) 727 - 3827 (fax)
Industrial Subgrantee: Brittany Dyeing & Printing Corporation, 1357 E. Rodney French Blvd. New Bedford, MA 02744 (508) 999-3281, (508) 997 -7001
Industrial Contact: Kenneth Joblon
Federal Cost: \$425,000
Industrial Dollars Share: \$792,471
Estimated Total Project Cost: \$1,217,471
Industrial Cost Sharing: 65%

Abstract of Work to be performed:

Brittany Dyeing & Printing Corporation will demonstrate a unique process that will more than double conventional textile processing rates. Traditional concepts concerning machine speed, chemical application, and machinery design are abandoned with this innovative textile finishing process. The goal of this project will be to assemble equipment that can finish textiles with 75% less moisture than conventional finishing process, thus increasing the capacity of the textile machines.



**Buzzards Bay Project
Toxics Use Reduction Program**



**The
Buttonwood
Workshop
Series**

*Working with industry and commerce
to be environmentally safe and
economically sound*

Workshops

Materials Management and Chemical Reporting

December 15 , 1993
January 26, 1994

Held at the Howland Green Library located in New Bedford, Massachusetts.

This workshop educated participants on Tier II reporting requirements and the right to know(osh) laws. This workshop was so well attended it was held twice.

Speakers

Frederick M. Kalisz, Jr. BBP/TURRich Bizzozero, OTA
Dr.Grace Donnelly, Biospec Inc.

Sustainable Manufacturing

February 23,1994

Held at Buttonwood Branch Library located in New Bedford, Massachusetts

The purpose of this workshop was to educated business/industry about the concept of Sustainable Manufacturing. Mitchell L. Kennedy, the keynote speaker, assisted over 120 industries to implement pollution prevention programs, achieve cost savings, and develop corporate environmental teams.

Speakers

Frederick M. Kalisz Jr., BBP/TUR
Tom Black, Office of Business Development

Mitchell L. Kennedy

Impacting Water Use in Local Industry

April 27 1994

Held at Buttonwood Branch Library located in New Bedford, Massachusetts.

The purpose of this workshop was to explain to local industry the impacts of the development of the secondary wastewater treatment plant. As well as the correlation of pollution prevention measures and a reduction in water usage.

Speakers

Frederick M. Kalisz Jr.BBP/TUR
Jack Bailey, Acushnet Co.

Ron Labelle ,NBDPW/WWDS
William Roedar,Star Plating Co.

Clearing the Air on Clean Air Regulatory and Pollution Prevention Training for Perc Dry Cleaners

May 12 1994

Held at the multi- media center at the Pulaski Elementary School, located in New Bedford, Massachusetts

This was a four hour long teleconference broadcasted out of the University of Tennessee. The teleconference explained the new EPA forms, compliance information, and new technologies available to perc dry cleaners.

Speakers

Frederick M. Kalisz, Jr. BBP/TUR

Rich Bizzozero,OTA

Pollution Prevention & Waste Minimization through Metals Recovery & Abatement

June 22 1994

Held at the Buttonwood Branch Library located in New Bedford, Massachusetts.

This workshop focused on the reduction of toxics discharged into New Bedford's POTW by local industry, through metal recovery and abatement in wastestreams. Mr. Werbicki, the keynote speaker is the technical director of Agmet recovery that designed pollution prevention systems with a focus on recovery rather than destruction.

Speakers

Frederick M. Kalisz, Jr. BBP/TUR

Rich Bizzozero, OTA

Joe Werbicki, Agmet Resource Recovery

Jim Knox, The Standard Times

Steve Hemingway, Johnson & Johnson Professional

Vincent Furtado, NB Wastewater Division

Fats, Oils, Grease and Other Floatables in the Wastestream

June 29 1994

Held at Buttonwoods Branch Library located in New Bedford, Massachusetts.

This workshop addresses the problems associated with the release of fats, grease and floatables into the New Bedford Waste Water Collection System.

Speakers

Frederick M. Kalisz, Jr., BBP/TUR
Rich Bizzozero, OTA

Ron Labelle, NBDPW
Vin Furtado, NBDPW

Making Compliance Work for You **(RACT)**

January 19, 1995

Held at the Holiday Inn Located in Taunton, Massachusetts.

The presentation included: a concise review of RACT regulations with emphasis on the latest additions of industry categories; introduction of DEP's newest permit policy incorporating Pollution Prevention; software for improved monitoring compliance and record keeping, and a software program that calculates emissions, identifies their source and targets techniques to reduce them.

Speakers

Rich Bizzozero, OTA
John Raschko, OTA
John Winkler, DEP
Mark Jablonski, DEP

John Flynn, OTA
George Franz, OTA
Seth Pickering, DEP

(OTA - Massachusetts Office for Technical Assistance for Toxics Use Reduction)
(DEP - Massachusetts Department of Environmental Protection)

Pollution Prevention Day (Environmental Awareness Day)

March 21, 1995

Held at Greater New Bedford Regional Vocational High School located in New Bedford, Massachusetts.

The purpose of this seminar/exhibit was to provide a forum for diverse environmental interests, public and private, to meet and discuss technologies, achievements and problems. This was held in conjunction with the Governor's Cabinet Day visit.

Speakers

Trudy Coxe, Secretary of Environmental Affairs
Ron Labelle, New Bedford Wastewater Division
Jack Bailey, Acushnet Rubber Company
Steve Hemingway, Johnson and Johnson Professional
Rick Reibstein, Office of Technical Assistance

List of Exhibitors

Nature's Backyard	Pequad Associates
Aquatec	New England Environmental
Ecologic	U/Mass Lowell
Dr. Grace Donnelly - Biospec	Frank Corp

Johnson & Johnson Professional (1994 TUR Award Recipient)
Southeastern Massachusetts Manufacturing Partnership/UMASS
Greater New Bedford Regional Vocational Technical High School
Massachusetts Office of Business Development
Massachusetts Maritime Academy
New Bedford Wastewater Division
Department of Environmental Protection - Massachusetts
New Bedford Fire Department Hazardous Materials Management/Response
Southeast Regional Planning Economic Development District

Pollution Prevention & Environmental Management for Marinas & Boat Repair Facilities

March 23, 1995.

Held at Massachusetts Maritime Academy.

The purpose of this workshop was to create an awareness among marinas, boatyard managers, harbormasters and local officials for the need to adopt environmentally sound management policies. It presented an overview of present and proposed future state management policies affecting marinas and boatyards.

Speakers

Jan Smith
Jared Rhodes
Charles Swain
Greg Galvin
Buell Hollister
United States Coast Guard

Coastal Zone Management
URI Coastal Resources Center
Edwards Boat Yard
Onset Bay Marina
Massachusetts Department of Fisheries,
Wildlife and Div. of Law Enforcement

Clearing the Air on Clean Air (Regulatory and pollution prevention training for perc drycleaners)

May 12, 1994.

Held at Pulaski Elementary School - Media Center.

The program featured a national satellite relayed teleconference. This presentation focused on-on-one discussions between drycleaners and regulators on Clean Air Act regulations, especially those that will be changing soon. A comprehensive reference book full of sample monitoring forms, corrective action forms, EPA registration forms, loan information for equipment changes and cost saving measures was provided to participants.

Co-sponsors/Presenters

The United States Environmental Protection Agency
The Commonwealth of Massachusetts Executive Office of Environmental Affairs
Massachusetts Office of Technical Assistance
The International Fabricare Institute
University of Tennessee Center for Industrial Services
The Buzzards Bay Project Toxic Use Reduction Program

The EPA's Pit Stop Program

April 27, 1995

Held at Greater New Bedford Regional Vocational High School located in New Bedford, Massachusetts.

The purpose of this workshop was to familiarize the autobody shop industry with environmentally friendly practices. This workshop provided automotive specific regulatory information relating to the following laws; Clean Air Act, Massachusetts Hazardous Waste Regulations, Ground Water Protection Regulations, and Solid Waste Regulations.

Speakers

George Frantz, OTA
Bob Green, DEP
Rich Bizzozero, OTA
Stephen Mckenna, BBP/TUR

Paul Reilly, DEP
Angela Miller, DEP
Frederick M. Kalisz, Jr. BBP/TUR

Co-sponsors

Massachusetts Office of Technical Assistance for Toxic Use Reduction
The Buzzards Bay Project
Toxic Use Reduction Advisory Committee
The Buzzards Bay Project Toxic Use Reduction Program

Clearing the Air on Clean Air Teleconference for Solvent Degreasers

May 24, 1995

Held at the Media Center at Greater New Bedford Regional Vocational High School.

The purpose of this workshop was to educate area solvent degreasers about the Maximum Achievable Control Technology (MACT) regulations. This conference was interactive, enabling viewers able to ask questions of presenters.

Speakers

Karen Brown, EPA

Deborah Elmore, EPA

Fred Kalisz, BBP/TUR

Rich Bizzozero, OTA

Ernie Blankenship The State of Tennessee

Cam Metcal, UT Center for Industrial Services

Co-Sponsors

United States Environmental Protection Agency

Buzzards Bay Project Toxic Use Reduction Program

University of Tennessee

Office of Technical Assistance

Wastewater Treatment In New Bedford

December 14, 1995

Held at University of Massachusetts (Dartmouth).

This workshop focused on the changes that companies will need to make in order to comply with the new stricter discharge limits.

Speakers

Ron Labelle, NBDPW
Vin Furtado, NBDPW
Jim Kane, OTA
Steve McKenna, BBP/TUR

David Hassey, NBDPW
Jim Richie, NB
Frederick M. Kalisz Jr., BBP/TUR
Wayne Reyendez, Canal Electric



Buzzards Bay Project

**Entry Submission
1995 Governor's Award
Toxic Use Reduction**

**Star Plating Company
New Bedford, Massachusetts**

Entry Form

1995 Governor's Award For Toxics Use Reduction

To enter, complete this form and attach a two-page description of your TUR project. Make sure that your entry addresses the criteria listed on this brochure.

Name of Applicant(s) Star Plating Company Number of employees 42
Address 41 Coffin Avenue, New Bedford, MA 02746
Telephone (508) 996-9712
Contact Person William D. Roeder Title Vice-Pres. & Gen. Mgr.

All entries must be postmarked by March 31, 1995

Toxic Use Reduction Program Star Plating Company

Star Plating Company is a job shop with about 42 employees which specializes in barrel plating of steel hardware and stampings. Finishes provided include zinc, nickel, copper, brass, and tin. Star Plating operates 24 hours per day, six days per week with two shifts, and plates about 250-300,000 pounds of material per week. Star Plating has four trucks which pick up and deliver to customers in Connecticut, Rhode Island, Massachusetts, and up into New Hampshire.

Star Plating has had an active Environmental Improvement Program since 1988. Recent emphasis has been directed toward Toxic Use Reduction and water conservation. Tangible results to date include the following:

1. In 1988, the use of trichlorethylene as a cleaner in tin fusing was eliminated by replacing it with an aqueous cleaner. As a result, Star Plating eliminated all use of ozone depleting and solvent based chemicals.
2. In 1991, Star Plating initiated purchase of zinc brightener in 350 gallon totes instead of 55 gallon drums. Totes are locked, and the required amount of brightener is issued to each of nine plating lines (twice in 24 hours). Through less spillage and better control, brightener usage (hazardous ingredient- methanol) has been reduced by 32 %.
3. Since 1989, cyanide usage has been reduced by consolidating three cyanide plating lines into one copper-brass line which is set up with an empty drag out tank and two counter flow rinse tanks. Plating solution "drag out" is returned to the plating tank. In addition, Star Plating changed from cyanide chemicals in powder form to cyanide in liquid form to improve solubility. In 1990, Star Plating introduced "Simulated Brass" plating which is (non-cyanide) zinc plating dyed brass color. Customer acceptance resulted in increased business, and reduced the demand for cyanide brass plating. The combined result was a 39 % reduction in cyanide usage, reduced toxicity of emissions (effluent and metal hydroxide sludge) from Star's wastewater treatment system, and near elimination of cyanide sludge waste stream.
4. The over-all results of Star Plating's water conservation program which includes reusing 50% of our effluent for production rinsing, and custom designed, spray rinse technology has reduced water usage by 71 % since 1985, and has reduced the amount of metals in the effluent by 87 % which is very beneficial to New Bedford's POTW.
5. Generation and disposal of metal hydroxide sludge (which is extracted from the plating rinse waters) has been reduced by 75% by reducing drag-out from plating

baths, and through the use of a sludge dryer which reduces the volume and weight of the sludge prior to disposal.

The following chart summarizes the over-all progress made to date:

Toxic Substance or Resource	Trichloro-ethylene (lbs.)	Methanol (lbs.)	Cyanide Compounds (lbs.)	Water (Million Gallons)	Metal in Waste-water (lbs.)	Metal Hydroxide Sludge (Tons)	Total
Use Reduction							
- Peak Use Year	1984	1990	1988	1985			
- Peak Quantity	12,540	25,218	9,469	72.6			
- Current Quantity (1994)	0	17,194	4,881	21.1			
- Quantity Reduced	12,540	8,024	4,588	51.5			
- Percent Reduction	100%	32%	48%	71%			
- Red. / Unit of Product	100%	34%	39%	69%			
By-Product							
- Peak By-Product Year	1984	1990	1988	1985			
- Maximum	12,540	25,218	9,469	72.6			
- Current (1994)	0	17,194	4,881	21.1			
- Quantity Reduced	12,540	8,024	4,588	51.5			
- % Reduction	100%	32%	48%	71%			
Emissions							
	Used Tri-chlor	Waste Water Contaminant	Cyanide Sludge	Waste Water Effluent	Metal in Waste Water	Metal Hydroxide Sludge	
- Peak Emission Year	1988	1990	1984	1985	1987	1985	
- Maximum	5,940	25,218	13,750	72.6	3,798	318.2	
- Current (1994)	0	17,194	0	21.1	494	78.8	
- Quantity Reduced	5,940	8,024	13,750	51.5	3,304	239.4	
- % Reduction	100%	32%	100%	71%	87%	75%	
Project Costs	\$0	\$6,000	\$56,500	\$35,000	(see water)	\$40,000	\$137,500
Annual Savings							
- Purchase	\$7,775	\$48,731	\$1,024	\$58,504	-	\$0	\$116,034
- Disposal	\$2,385	\$0	\$25,000	\$181,259	\$0	\$57,037	\$265,681
Total Annual Savings	\$10,160	\$48,731	\$26,024	\$239,763	\$0	\$57,037	\$381,715

In summary, Star Plating Company has demonstrated with its environmental improvement program that significant results can be achieved with modest expenditures, and that considerable economic savings can be attained.

William D. Roeder
Vice-Pres. & Gen. Mgr.



Buzzards Bay Project

March 30, 1995

Governor's Award Program
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

We are pleased, at the Buzzards Bay Project Toxics Use Reduction Program to offer this letter in support of the application of Star Plating Company for the 1995 Governor's Toxic Use Reduction Award. The past 18 months have been an active and exciting period with the Project's efforts with industry around New Bedford Harbor, in assisting in the understanding and implementation of TUR initiatives that directly impact Buzzards Bay and further advance the Commonwealth's TURA goals.

As can be seen from the thorough presentation prepared by Star Plating, a direct relationship exists between the introduction of technology, the reduction in toxics in the manufacturing process, and the positive economic impact upon the operation. Star Plating is a small manufacturing industry operating in a major urban community that is plagued by lack of employment opportunity, abandoned mill complexes, and a highly overseen hazardous environmental zone. Yet through all of this they remain competitive, continually introducing modern technology, sustaining and promoting their product line in national and international markets - but more importantly keeping jobs in New Bedford.

The proactive and positive efforts as exemplified by Star Plating, along with their documentable results, cause, in our opinion, their consideration for the 1995 Governor's Toxic Use Reduction Award.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred M. Kalisz, Jr.", written over a horizontal line.

Frederick M. Kalisz, Jr.
Program Coordinator
Toxics Use Reduction



CITY OF NEW BEDFORD MASSACHUSETTS

DEPT. OF PUBLIC WORKS

133 WILLIAM STREET

LAWRENCE D. WORDEN
COMMISSIONER
March 31, 1995

Frederick M. Kalisz, Jr.
Program Coordinator
Toxic Use Reduction Program
Buzzards Bay project
2 Spring St.
Marion, MA 02738

Dear Mr. Kalisz:

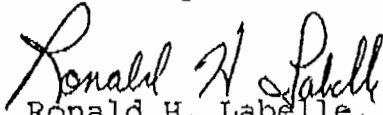
The City of New Bedford, Wastewater Division, has recently been notified that Star Plating Company has been selected as a potential recipient of the Governor's Award on Environmental Compliance. As such, desiring to keep this award in the City for the second consecutive year, the Wastewater Division respectfully submits the following:

Star Plating, a brass, copper, nickel, tin and zinc barrel electroplater, was issued an industrial discharge permit in October 1987. To comply with Federal, State, and Local Regulations, Star Plating installed a gravity precipitation wastewater treatment system which treats their process rinse water via clarification, filtration, flow equalization, oil/water separation, and neutralization processes. In the eight (8) years that this facility has been involved in New Bedford's Industrial Pretreatment Program, Star Plating has consistently been in compliance.

Recently, Star Plating has actively pursued water conservation efforts which will cause a significant reduction in metals' discharges to the City's Treatment Processes - greatly assisting the City in its' goal of achieving a Massachusetts Type 1 Sludge for beneficial reuse.

Should you have any questions, please contact this office at (508) 991-6158.

Sincerely,


Ronald H. Labelle,
Supt. WWD



Buzzards Bay Project

January 19, 1996

Congressman Barney Frank
Rayburn House Office Building
S. Capitol St. & Independence Ave., S.E.
Washington, DC 20515

Dear Congressman:

As part of our ongoing efforts with regard to toxics use reduction and the maintenance of viable industry in the New Bedford Harbor area, the Buzzards Bay Project's Toxics Use Reduction Program is pleased to submit to you this proposal which has been submitted by Brittany Dyeing and Printing Corporation to the Department of Energy and the Environmental Protection Agency. This proposal is for funding under a National Industrial Competitiveness Through Energy, Environment, and Economics (NICE³) grant.

We are pleased with the effort that Brittany has demonstrated investing months in the preparation of this proposal. As you know, Brittany is now one of the largest and oldest industrial complexes in New Bedford. They are part of an industry that has been impacted by NAFTA, local wastewater modifications due to unfunded federal mandated construction of a secondary wastewater treatment process. As well as the continuing and escalating costs of doing business in a state considered by many captains of industry as unfriendly. The consideration and selection of Brittany as one of the grant recipients in the current round of consideration will go far to instill confidence in the local manufacturing community, enable much needed updating in a highly competitive industry, as well as advance the technological change proposed to similar and like industry that will impact the national economy on the whole.

We hope that this briefing package will facilitate your understanding of NICE³ and the importance of your actions on the part of Brittany. Our staff at the Buzzards Bay Project stands ready to assist you and your staff in advancing this effort.

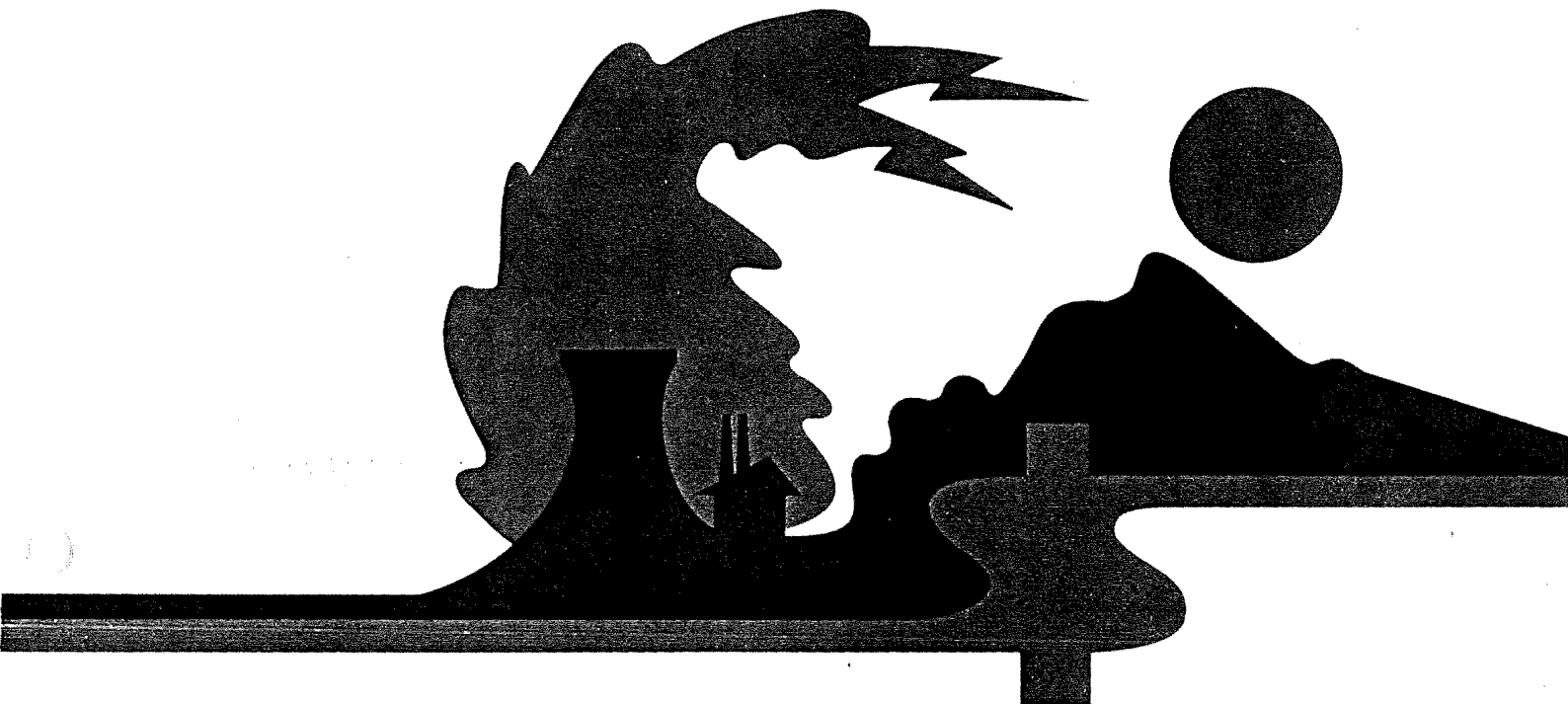
Sincerely,

Frederick M. Kalisz, Jr.
Program Coordinator

encl:



NICE³



**NATIONAL
INDUSTRIAL
COMPETITIVENESS
through
ENERGY
ENVIRONMENT
ECONOMICS**

A briefing paper
prepared for
Congressman Barney Frank
by the
Buzzards Bay Project
January 1996



ESTABLISHED 1939

Brittany Dyeing & Printing Corp.

1357 EAST RODNEY FRENCH BLVD. • P.O. BOX 3106 • NEW BEDFORD, MA 02741-3106
TELEPHONE (508) 999-3281

January 10, 1996

Mr. John Raschko
Commonwealth of Massachusetts
Office of Technical Assistance
100 Cambridge Street Room 2109
Boston, MA 02202

Dear Mr. Raschko:

Enclosed is our proposal for a National Industrial Competitiveness Through Energy, Environment, and Economics (NICE³) grant. We are excited about the possibility of seeing our proposal completed with the help of Department of Energy co-funding.

Brittany Dyeing & Printing Corporation has always been on the leading edge of technological developments in textile finishing. We feel that to maintain a competitive edge, proposals such as ours are critical.

Historically, our staff of professionals has met every challenge placed before them. Many groundbreaking events in the finishing of fabrics have been accomplished by our team. Our expertise in processing fabric is honed constantly by bringing to fruition projects such as our current proposal.

It is with pleasure that we submit this proposal to you. Please be assured that, if approved, our every resource will again go into accomplishing the successful implementation of the goals of our proposal.

Very truly yours,

BRITTANY DYEING & PRINTING CORP.

Kenneth Joblon
President and Chief
Executive Officer

KJ:lv

Enclosure

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

NICE³ Grant Proposal

January, 1996

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BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

NICE³ Grant Proposal

January, 1996

Part I - Technical Information

(i) Concept Description

The American textile industry faces high energy usage in the finishing of fabrics. The finishing operation is the final step in fabric production to impart the aesthetic and physical properties required by various end uses. These properties, which are achieved by a combination of chemical and mechanical processes, include shrinkage control, softness, water repellency, and stain resistance to name a few.

Conventionally, the fabric is immersed in a solution containing the required chemicals, the excess moisture is squeezed out, the moisture content is further lowered by means of a vacuum, and the fabric is dried on a tenter frame. A tenter frame holds the fabric by its edges in a continuous chain and dries the fabric by passing it through a series of nozzles that expose the fabric to air at elevated temperatures.

This process consumes huge amounts of energy in the form of natural gas to heat the fabric and evaporate the liquid. There is also a large electrical demand as a result of the number of motors required. The main sources of waste stem from the products of combustion of the natural gas and from the generation of electricity at its source. The speed of the finishing operation is limited by the high moisture content entering the tenter frame. This results in long hours of operation, increased labor costs, and increased waste from the previously mentioned sources.

Brittany Dyeing & Printing Corporation, a privately owned corporation located in New Bedford, Massachusetts, proposes an innovated approach to fabric finishing. Brittany will be joined in this effort by Marshall and Williams Company of Greenville, South Carolina and Providence, Rhode Island. Marshall and Williams is the only American manufacturer of tenter frames and housings. The proposal will modify the finishing operation to increase energy efficiency, reduce waste, and improve productivity to increase competitiveness in the domestic and international markets. This will be accomplished by the following:

1. The finishing chemicals will be applied in a foam media rather than liquid, i.e., air will be used as a diluent rather than water. By having less water to evaporate, the energy demand of the process will be reduced. It will also allow an increase in speed since the evaporative requirements of the tenter frame will be lower. Foam finishing technology has been in existence since the energy crisis of the mid-1970's, however it has never been applied at the speeds proposed.
2. With a novel chain and rail design in the tenter frame, Marshall and Williams will manufacture a machine capable of speeds up to 275 yards per minute. Average speeds in the past have been 120 yards per minute. The chain and rail design will lead to significant electrical savings since it has lower horsepower requirements. The increased speed will allow a reduction in operational hours

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

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and the resultant reduction in electrical demand, natural gas consumption, and emissions from products of combustion. Marshall and Williams has been developing high speed chain and rail systems for over twenty years. They expect this newest development in chain and rail design to be available in the fall of 1996.

The oven performance calculations supplied by Marshall and Williams (page 15) show energy and production data for the current and proposed technologies. These figures, based on a Marshall and Williams computer model of each technology, show a dramatic energy savings of over 50% per unit weight of fabric.

(ii) Innovation

The technical goal of this proposal is to finish textile fabrics with higher speeds, lower energy consumption, and reduced emissions. This will lead to improved competitiveness as a result of lower labor and operational costs. The major innovations to achieve this goal are in the area of machine design. The new chain and rail combination will remove current barriers to increasing machine speed. The new chain does not require the same lubrication as conventional chains do. Rather than intermittent oiling when in operation, the new chain will require annual greasing in a closed system to eliminate emissions from the lubricant. This will eliminate the use of lubricating oil and the emissions associated with it.

Our proposal will be the first application of foam finishing technology at 275 yards per minute. It is, in fact, the only type of finish application that can be adapted to this speed. By virtue of its low moisture add on to the fabric, the process will not be inhibited by burdensome evaporative requirements.

As shown in Attachment C (page 13), the overall horsepower demand of the proposed range is lower than the conventional range. This, coupled with the reduced operational hours due to increased production, results in lower electrical costs. The lower moisture content chemical application results in lowered natural gas consumption and cost when compared to a conventional finishing range. A third advantage of the proposed range is the elimination of lubrication oil for the chain and rail.

(iii) Cost Efficiency

These two breakthroughs, in finish application and finish machinery, will lead to higher productivity. This will improve the position of American finishers when competing with foreign fabrics produced with low labor costs and little or no environmental nor governmental restrictions. Beyond the labor savings, savings will be realized in the following areas:

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

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1. Natural gas expenditures will be reduced as a result of foam application technology and reduced hours of operation.
2. Electrical costs will be reduced as a result of lower horsepower requirements of the new chain design and reduced hours of operation.
3. Maintenance costs will be reduced as a result of less cleaning and servicing time required by the new range.

As shown in Table 3 (Insert 3 following page 5), the proposed process enjoys a 25% savings in operational costs over conventional finishing technology. The efficiency of the finishing operation will be improved by producing more yardage per running hour. Easier maintenance will also result in more production. Wastes, which are unconsumed chemicals at the end of the run, will remain minimal. These wastes are kept to a minimum by knowledge of what quantity of chemical mixtures are required for a certain amount of yardage. Since these wastes are compatible with municipal treatment, they are and will continue to be treated by the City of New Bedford's Wastewater Treatment Plant.

(iv) Applicant Capabilities

Brittany Dyeing & Printing Corporation has been in business and processing textiles in the same location since 1939. Equipment, formulations, and processing methods have been updated through the years to adapt to different fibers, fabrics, and customer requirements. Currently, Brittany is one of the most modern finishing facilities in the United States. State of the art equipment, the latest technologies, and a dedicated staff of trained professionals keeps Brittany at the top of its craft. Brittany is uniquely qualified to implement the new finishing process because it is a recognized leader in high speed bleaching, printing, and inspection of fabric. Various forms of foam finishing technologies have been developed and employed by Brittany for over ten years.

The Brittany team is led by Kenneth Joblon as President and CEO. Mr. Joblon has been running the company, which was founded by his father, since 1972. The younger Mr. Joblon has overseen a retooling of the company that included the replacement of every piece of equipment in the plant over the last fifteen years. Brittany's technical staff is led by Robert Cruise who will act as Project Engineer for this proposal. Mr. Cruise is a graduate of Providence College with a Bachelor of Science degree in chemistry. He graduated Cum Laude and has been involved in textile finishing for over twenty years.

The Marshall & Williams' contribution to this project will be led by Philip M. Witkin as Project Engineer. Mr. Witkin holds a Master of Science degree in mechanical engineering from The University of Virginia. He also holds undergraduate degrees from Bucknell University. He has been involved with research and development and engineering with Marshall and Williams for

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

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PROJECT SCHEDULE (TABLE-5)

MILESTONE	MONTHS FROM APPROVAL
Execute Massachusetts Division of Energy Contract	2
Order New Tenter Frame	3
Install New Tenter Frame and Allied Equipment	8
Start up, Debug, Experiment	10
Project Complete	12

ENERGY SAVINGS (TABLE 1)

ENERGY	(a) Current Technology (BTU/Yr/Unit)	(b) Proposed Technology (BTU/Yr/Unit)	(c=a-b) Energy Savings (BTU/Yr/Unit)	(d) # of units in place in 2010	(c=dx) 2010 Energy Savings (BTU/Yr/Unit)
Natural Gas	2.04×10^{10}	9.87×10^9	1.05×10^{10}	100	1.05×10^{12}
Electricity (At 10500 BTU/kwhr)	1.54×10^{10}	6.24×10^9	9.16×10^9	100	9.16×10^{11}
Total per unit	3.58×10^{10}	1.61×10^{10}	1.97×10^{10}	100	1.97×10^{12}

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

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January, 1996

twenty years. He currently holds the position of Manager of Engineering and Research. Also contributing from the Marshall and Williams side will be Christopher Hosmer. A graduate of Clemson University in mechanical engineering, Mr. Hosmer leads Marshall and Williams' efforts in tenter frame design and improvement.

The partnership between Brittany and Marshall and Williams dates back to the early 1980's. At that time, the two companies combined efforts to design, install, and run Brittany's first new tenter frame in over a decade. Since that time, the relationship has continued with Marshall and Williams continuing to meet Brittany's changing machinery needs. With Brittany and Marshall and Williams' extensive experience in high speed finishing of fabrics, they may be the only qualified team in the country to accomplish the goal set forth.

Marshall and Williams currently has pilot plant testing facilities at their Greenville, SC facility. This is where they have the capability to test experimental designs in chain and rail systems. Their testing is done at actual running speeds so they can evaluate modifications under conditions that simulate a production environment.

(v) Energy Savings

A conventional finishing unit, incorporating current technology, consists of the following:

(1) Fabric infeed and guiding (2) pad for finish application (3) vacuum for moisture removal (4) fabric straightner (5) tenter frame with constant oiling chain and penthouse housing (6) fabric cooling cans (7) calender for improved softness (8) rubber belt machine for improved softness (9) batcher to put the fabric on rolls.

A unit of production, for this proposal, is the yardage run on a conventional finishing range, as described above, in a year. This is calculated as follows:

The typical range operates at 120 yards per minute at 60% wet pick up on 100% cotton fabrics. In a normal year, the machine is operational for 6000 hours. This represents a three shift operation with two operators per shift. With 20% down time for formula changes, cleaning, and repairs, it is running 4800 hours. These conditions result in 34,560,000 yards of finished fabric produced per year.

The Marshall and Williams oven performance calculation for these conditions (shown as the current technology on Page 15) shows that the range will consume 4,259,000 BTUs per hour or 2.044×10^{10} BTUs per year ($4.259 \times 10^6 * 4.8 \times 10^3$).

The proposed unit, incorporating new, innovative technology, consists of the following:

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

NICE³ Grant Proposal

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As shown in Table 3, the proposed technology represents a savings of over \$150,000 per year. Since the majority of the savings are in electricity and labor, the percentage savings will remain the same ~~no~~^{no} matter how the rates vary. If the rates increase in the future, the dollar savings will be greater. Supportive calculations for Table 3 are shown in attachment F (page 17).

(viii) Commercialization

Widespread commercialization is dependent upon achieving the goal of this proposal. The experience of Marshall and Williams and Brittany in fabric finishing expertise places some of the best textile people in the country at the helm of this project. Once fabric finishing is being accomplished in day to day production at 275 yards per minute with no compromise in quality, the industry will have no choice but to adopt it. Such speeds have not been achieved in the past because the tenter frame technology has not been available. Also the industry has been bound by ungrounded concepts about how fast fabric can be run. These bonds will be released once the higher speeds are being used in commercial practice.

Once the proposed innovation in fabric finishing is achieving its goals of energy efficient, high speed finishing, data will be generated comparing physical characteristics from the new process to the existing process. As the industry is constantly looking for more energy efficiency, higher productivity, and less waste, there will be no problems in presenting this data in trade publications and at industry technical conferences. Monthly publications such as American Dyestuff Reporter, Textile World, and the Textile Chemist and Colorist are constantly looking for such articles. Also, the American Association of Textile Chemists and Colorists presents an annual technical conference which would be an excellent forum for the presentation of data from our proposed process.

Marshall and Williams will pursue a marketing plan that will include advertising in the above mentioned publications. Also, their sales teams throughout the country will disseminate information on the new process to other finishing plants. The new chain and rail design will be displayed at trade machinery shows such as the American Textile Machinery Exhibition held in Greenville, South Carolina.

Industry is dependent upon co-funding for the project for several reasons. The first is the injurious effect imports have had on viability of finishing plants in the past several years. Every month apparel imports set records and in the past year at least six finishing plants have ceased operations. The flood of companies going to Mexico for low labor rates and protection of their products under the North American Free Trade Agreement has further eroded the ability of an American based plant to compete. As the General Agreement on Tariffs and Trade phases in over the next decade, the trend of plant closings is expected to continue. These influences make it difficult for a finishing plant to justify the capital expenditure of the proposed project.

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

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COMMERCIALIZATION MARKET (TABLE 4)

Category	Current		Future	
	U.S. Market 1995	International Market 1995	U.S. Market 2010	International Market 2010
(a) How many units (conventional and your proposed) industry wide are/ will be in operation?	500	5000	a+b+c 400	a+b+c 6000
(b) How many units in (a) use your proposed technology?	0	0	100	300
(c) How many units in (a) wil use the conventional technology?			300	5700
(d) Define market penetration of the proposed tech. as $d+b/a$ in %.			25%	5%

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

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Brittany Dyeing & Printing Corporation feels there will always be a need for an American presence in the textile finishing industry. Brittany is committed to being a part of that presence, however we are competing on an unlevel playing field that co-funding of this proposal will help to right. The apparel imports from nations paying a fraction of American wages and having little or no concern for the environment, have caused an erosion in selling prices. These imports do and will continue to prevent American plants from taking on challenges such as this proposal by themselves.

Co-funding will also provide a boost to an economically depressed area. Southeastern Massachusetts traditionally leads the Commonwealth with double digit unemployment. Specifically, New Bedford has lost over 4500 manufacturing jobs in the last ten years. An investment of the magnitude of this proposal will send a positive message to the community that the Federal government, State government, a public utility, and private industry have not lost hope that local manufacturing can withstand the onslaught of imported products.

Table 4 (Insert 4 following page 6) shows the current and future status of the domestic and international textile industries. Currently there are no finishing ranges such as the proposed in existence. In the next fifteen years, the domestic-industry is expected to shrink. After the proposed range is a proven success, domestic installations are expected to be six to seven ranges per year. As the only domestic manufacturer of tenter frames and housings, Marshall and Williams will enjoy a two to three year period of being the exclusive supplier of the proposed, innovative range. After that time, foreign competitors will have duplicated the performance of the Marshall and William's chain and rail.

The foreign market will be slow to adopt the proposed range. Productivity is not emphasized in the foreign market due to low labor costs. Also, the quality of their labor force does not permit faster running speeds.

(ix) Technology Transfer Prospects

Once the new machinery is proven in the field, the following companies should be able to embrace the technology for their own use:

1. Cone Mills of Carlisle, SC
2. Cranston Print Works of Cranston, RI, Webster, MA, and Fletcher NC
3. Fieldcrest/Cannon Inc. of Spencer, NC
4. Galey & Lord of Society Hill, SC
5. Hanes Dyeing and Finishing Co. of Winston-Salem, NC
6. LA Dye & Print Works of Los Angeles, CA
7. Santee Print Works of Sumter, SC

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

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8. Sparten Mills of Spartanburg, SC
9. Springs Industries, Inc. of Fort Mill, Sc
10. Westpoint Stevens Inc. of West Point, GA

(x) Outside Resources

We have been fortunate to receive funding for this proposal, contingent upon a Department of Energy NICE³ Grant, from Commonwealth Electric Company. As the attached letter of Commitment shows (Page 13), Commonwealth Electric Company has allocated \$20,000 for our proposal. Brittany Dyeing & Printing Corporation considers this an important contribution. Since the project is expected to be installed in 1996, all expenditures should be made in that year. Based on an installed cost of \$1,187,471, funding for this proposal is as follows:

Brittany Dyeing & Printing Corporation	\$767,471	64.6%
Commonwealth Electric Company	\$20,000	1.7%
Department of Energy NICE ³ Grant	<u>\$400,000</u>	33.7%
	\$1,187,471	

BRITTANY DYEING AND PRINTING CORPORATION

NEW BEDFORD, MASSACHUSETTS

NICE³ Grant Proposal

January, 1996

Information for OTA preparation of the title page

1. Title: Innovative Textile Finishing Process Saves Energy, Increases Productivity, and Reduces Waste.

Industry Partner: Brittany Dyeing & Printing Corporation
Contact: Kenneth Joblon, President and Chief Executive Officer
Address: 1357 E. Rodney French Blvd.
New Bedford, MA 02744
Telephone: (508) 999-3281
Fax Number: (508) 997-7001
Congressional District: 4th

Abstract:

Traditional concepts concerning machine speed, chemical application, and machinery design are abandoned with an innovative textile finishing process. Brittany Dyeing & Printing Corporation, in conjunction with Marshall and Williams Company, proposes a unique chain and rail combination that will more than double conventional speeds of one hundred twenty yards per minute. On 100% cotton fabrics, the use of foam application technology will apply the finishing chemicals with 25% moisture rather than the normal 60%. This will reduce the natural gas usage to evaporate liquid by over 50%. The increased running speed will result in less hours of operation. This will yield a 50% decrease in electrical consumption and the energy associated with its generation.

In addition to reducing energy usage and waste, the proposed process will improve the competitive stance of American textile finishing plants. These plants are in a constant competition with fabrics from foreign nations that do not approach the American wage standard and do not approach American environmental standards. The lowered labor and operational costs associated with this proposal will help level the uneven playing field that American finishers must compete on. Apparel imports are setting records every day to the point that they represent 65% of the apparel sold at the retail level in the United States. The proposed technology represents what is needed for the American finisher to survive into the next century and beyond.

To: Peg Brady@CZM@EOEA
Cc: Phil, Anne
Bcc: Fred Kalisz@CZM@EOEA
From: Joe Costa@CZM@EOEA
Subject: re: NICE3 - Fred's to credit
Date: Wednesday, May 15, 1996 17:27:35 EDT
Attach:
Certify: N
Forwarded by:

It is worth noting that, had it not been for Fred Kalisz's Buzzards Bay Toxic Use Reduction Program, his outreach, and newsletter, Brittany Dying would never have known about the NICE3 funding opportunity. Moreover, Fred acted as a facilitator between the company and EPA and OTA, helped guide the company in the development of their package, and ushered the package along. Fred's networking with Congressman's Frank's office was also instrumental.

This is one of the many successes of the BBP Toxic Use Reduction Program. The only sad note is that with the elimination of competitive grants through EPA's Pollution Prevention Incentives Program (now given to the state as a block grant), there is no opportunity to refund this Buzzards Bay initiative, and the Buzzards Bay Project now faces losing Fred, Steve McKenna and Kathryn Latimer on June 30th. We are scrambling for funding sources, but things look grim.

Fishermen's tax status dispute clears major hurdle / B1

WEDNESDAY

May 15, 1996

EYE

NEW BEDFORD
Steve Thomas, host of the PBS show "This Old House," presents recent projects at 8 tonight at Greater New Bedford Regional Voc-Tech.

The Standard-Times

Serving the communities of Southeastern Massachusetts

Volume CXLVII, No. 77

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New Bedford, MA

Newsstand: 50 cents



GOOD MORNING

WEATHER

Partly sunny today, high 60 to 65 / A4



LOTTERY

Daily number: 6017
Other lottery numbers / A2

LOCAL

WATCH YOUR CATCH

Fish from at least three New Bedford area lakes have been found to contain higher than acceptable levels of mercury, according to state officials / B1

NEW BEDFORD

The first of two gear-reduction units from the New Bedford-Fairhaven bridge is expected to be shipped today or Thursday as state officials continue to seek alternatives for reopening the span to vehicular traffic / B1

FREETOWN

Underfunding of the Building Department could mean layoffs, the end of the recycling program and a partial closure of the town's transfer station, selectmen fear / B1

Grant helps city plant protect 300 jobs

By Patricia O'Connor
Standard-Times staff writer

NEW BEDFORD—A city dyeing and finishing plant has received a \$425,000 federal grant that will enable it to increase its capacity, improve its energy efficiency and secure the jobs of its more than 300 workers.

The grant from the Department of Energy will help Brittany Dyeing & Printing Corp. fund a \$1.2 million project at its East Rodney French Boulevard plant that will revamp the way it finishes textiles.

The project, a combination of installing new machinery and implementing new processes, hasn't been duplicated at any other textile firm in the United States.

"This will make us more competitive, especially against foreign imports," said Robert Cruise, Brittany's vice president of operations. "It also helps secure our employees' jobs because it makes us competitive against imports."

As Mr. Cruise explained, in a traditional finishing operation, fabric is immersed in a solution of chemicals and the excess is squeezed out. Even after the squeezing, 80 percent

of the moisture remains. As a result the material has to be heated to evaporate the moisture.

Under the new process, the finish that is applied to the cloth will be diluted with air instead of water. As a result, only 25 percent of the moisture is left after the finish is applied and less energy will have to be expended to dry it.

By implementing that new process, new finishing machinery will be able to process 275 yards of fabric each minute as opposed to the 120 yards now being processed.

(See GRANT, Page A2)

INTERNET DAY



Feds urge changes in casino pact

Supporters hail news

By Rachel G. Thomas
Standard-Times staff writer

The compact between the Wampanoag Indians and the state needs modification before the federal government can approve it, according to an attorney for the Department of the Interior.

Nevertheless, casino supporters say a "from the attorney—in response to" by the House chairman of the "considering casino legislation"

gaming to other entities. Without the exclusivity, the Interior attorney said, the tribe would be under no obligation to pay. ■ The Wampanoag Tribe may build temporary casino on non-tribal land. ■ The compact provisions allowing potential ca mpden County an 700 slot ma altered among four race tracks still met the department's definition for "minimum exclusivity." "Inevitably, the manner in which

Simpson takes his case to Oxford University

By Ron Kampeas
Associated Press writer

OXFORD, England — O.J. Simpson denounced racial injustice and landed Christian spirituality last night, telling cheering or jeering Oxford students that he has discovered a new religious faith.

Expectations were high that the Oxford Union debating society, training ground of princes and prime ministers, would put Mr. Simpson under the toughest questioning he's faced since his acquittal last October on charges of murdering his ex-wife and her friend.

The students who packed the overflowing hall lived up to the expectations. Many, especially those from the United States, were familiar with the trial and asked detailed questions.

Pressed for explanations of forensic and blood evidence presented at

his trial, Mr. Simpson repeated defense claims that the prosecution's expert witnesses often contradicted their own testimony.

Asked why Nicole Brown Simpson wrote a will shortly before she was killed, he said that "Nicole made a will virtually every time we took a flight."

Mr. Simpson pledged to find the real killers after his acquittal. Asked about progress, he said he could no longer afford to pay detectives, but he understood there were strong leads in San Francisco. He didn't elaborate.

Students repeatedly asked Mr. Simpson how he could have allowed race to have become such a large part of the case; one person accused him of "manipulatively and cynically" playing the race card.

Mr. Simpson opened the one-hour



O.J. Simpson is surrounded by microphones and onlookers during his appearance at Oxford University's debating society.

Photo by The Associated Press

session declaring a newfound readiness to expose "the inequity of the justice system against people of color." Mr. Simpson said that while

as many whites as blacks were arrested in America, whites tended to go free while blacks faced prosecution.

Grant: Helps city protect 300 jobs at Brittany Dyeing

FROM PAGE ONE "This is a state-of-the-art finishing plant today; this grant will take us to the next level," Mr. Cruise said.

He added that Brittany would not have been able to implement this project had it not received the federal grant.

Many agencies and individuals, on both the state and federal level, helped coordinate the effort.

Brittany first learned of the program through the Buzzards Bay Pro-

ject Toxic Use Reduction program. That program is funded through the state's Executive Office of Environmental Affairs and the U.S. Environmental Protection Agency.

Representatives from Brittany and the Buzzards Bay program worked with members of the state's Office of Technical Assistance for Toxic Use Reduction in compiling the grant application.

Once it was in, Rep. Barney Frank, D-Mass., pushed for its approval.

The grant will be presented to Brittany officials at a reception May 29 at the Rayburn House Office Building in Washington, D.C.

According to Frederick M. Kalisz Jr., coordinator of the Buzzards Bay Project Toxic Use Reduction Program, the grant program provides funding to state and industry partnerships for projects that develop and demonstrate advances in energy efficiency and clean production technologies.

The program, National Industrial

Competitiveness through Energy, Environment, Economics, is designed to improve competitiveness, foster energy efficiency and reduce industrial waste.

Company President Kenneth Joblon, whose father founded the firm, was out of town yesterday and could not be reached for comment.

"This program is available to any industrialist who has an idea. That's what Ken Joblon had — a unique idea," Mr. Kalisz said.

Stargazer I'm not 1

By Reggie Sheffield
Standard-Times staff writer

NEW BEDFORD — Although Stargazers owner Sidney "Shap" Shapiro has not been charged with a crime, he has been labeled.

"I'm going to now face the Licensing Board and probably because I'm a scapegoat, I could possibly lose the license. Every agency in this city approved me and was aware of this event," he said.

Mr. Shapiro has owned the Flamingo Road nightclub, site of a murder last Saturday, since December. He has spent this week fighting attacks on his business.

"I don't think anyone noticed the severity. It wasn't like a sustained activity with lots of people dancing around him on the dance floor. He went unnoticed. No one realized that anything of that severity had happened," he said.

The "severity" was the stab death of 19-year-old Dwayne S. Ross of New Bedford, who was found slumped over in a booth in the club shortly after 1 a.m. Saturday. Two city men have been charged with murder and are in custody under \$50,000 bail each.

Mr. Shapiro yesterday said he wants to correct what he says is a wrong impression that hundreds of youths danced around Mr. Ross while he lay dying in the club.

"The club is being portrayed as either irresponsible or callous. Nothing could be further from the truth," he said.

Stargazers, known in prior incarnations as Club Colors and

Aqua Num: Trustees refuse to fund study

NICE³

United States Department of Energy

1996 Award Recipient

**Brittany Dyeing & Printing
Corporation**

New Bedford, Massachusetts

**Innovative Textile Finishing
Process**

briefing by

The Buzzards Bay Project - Toxics Use Reduction Program

1996 NICE³ Recipient

Brittany Dyeing & Printing Corporation

In May of 1996, Brittany Dyeing and Printing Corporation of New Bedford, Massachusetts was notified by the United States Department of Energy that they had been selected as a demonstration project for the NICE³ program. The following is a summary of the application and award made to Brittany.

State: Massachusetts
Title of Project: Innovative Textile Finishing Process
State Grantee: Massachusetts Office of Technical Assistance
Contact at State: John Raschko, 100 Cambridge Street Suite 2109, Boston, MA 02202, (617) 727-3260, (617) 727 - 3827 (fax)
Industrial Subgrantee: Brittany Dyeing & Printing Corporation, 1357 E. Rodney French Blvd. New Bedford, MA 02744 (508) 999-3281, (508) 997 -7001
Industrial Contact: Kenneth Joblon
Federal Cost: \$425,000
Industrial Dollars Share: \$792,471
Estimated Total Project Cost: \$1,217,471
Industrial Cost Sharing: 65%

Abstract of Work to be performed:

Brittany Dyeing & Printing Corporation will demonstrate a unique process that will more than double conventional textile processing rates. Traditional concepts concerning machine speed, chemical application, and machinery design are abandoned with this innovative textile finishing process. The goal of this project will be to assemble equipment that can finish textiles with 75% less moisture than conventional finishing process, thus increasing the capacity of the textile machines.



Buzzards Bay
Project



Toxics Use Reduction
Program

*...working with local industry to reduce the use and discharge of
toxic materials to Buzzards Bay and its watersheds.*

The Buzzards Bay Project Toxics Use Reduction Program congratulates Star Plating, Inc. on being chosen as a recipient of the 1995 Governor's Award for Outstanding Achievement in Toxics use Reduction.

for more information on the BBP TURP please call 508-748-3600

Governor's Award Program -1995
For Outstanding Achievement
in Toxics Use Reduction

presented to:

Star Plating

Local Recognition Day
June 7, 1995
10:00 a.m.

STAR PLATING COMPANY

Star Plating Company, specializing in plating of steel hardware and stampings, has had an active environmental improvement program since 1988. Recent emphasis on toxic use reduction illustrates a comprehensive plan to utilize TUR strategies promoted by the 1986 TUR Act. Examples of these strategies include:

Input Substitution - replacing trichloroethylene with aqueous based cleaner in tin infusing.

Product Reformation - developing a non-cyanide "simulated brass" plating which reduced the use of cyanide based brass plating and increased business from customer satisfaction with reduced toxics use.

Production Unit Redesign - consolidated plating lines, and use of liquid cyanide instead of cyanide power to improve solubility.

Production Unit Modernization - development of custom designed spray rinse technology to reduce water use and wastewater generation.

Improved Operations and Maintenance - reducing generation and disposal of metal hydroxide sludge by 75% by reducing drag-out from plating operations.

Recycling and Reuse - utilization of effluent for production rinsing.

Star Plating Company's program has accomplished 32%-100% use and by-product reductions and saved the company \$381,000 annually. Contact: William D. Roeder, Vice President and General Manager at 508-996-9712.

Local Presentation Ceremony 1995 Governor's Toxic Use Reduction Award Star Plating - New Bedford

10:00 a.m., Opening

Frederick M. Kalisz, Jr.
Program Coordinator

Buzzards Bay Project Toxics Use Reduction Program

Greetings

Dr. Joseph E. Costa
Executive Director
Buzzards Bay Project

Explanation of Award

Steven Hemingway
Johnson & Johnson Professional, Inc.
1994 Governor's Award Recipient

Presentation of Award

Secretary Trudy Cox
Executive Office of Environmental Affairs
Commonwealth of Massachusetts

Company Acceptance

William Roeder
Star Plating

Presentations:

Senator Mark Montigny, Massachusetts Senate
Representative Joseph B. McIntyre, Massachusetts House
Mayor Rosemary S. Tierney, City of New Bedford
Councillor Frederick M. Kalisz, Jr., New Bedford City Council
Michael Travers - New Bedford Chamber of Commerce

Refreshments and Plant Tour

State: Massachusetts

Title of Project: Innovative Textile Finishing Process

State Grantee: Massachusetts Office of Technical Assistance

Contact at State: John Raschko, 100 Cambridge Street, Suite 2109,
Boston, MA 02202, (617) 727-3260, (617) 727 - 3827 (fax)

Industrial Subgrantee: Brittany Dyeing & Printing Corporation, 1357 E. Rodney
French Blvd. New Bedford, MA 02744 (508) 999-3281, (508) 997 -7001

Contact at Industrial Subgrantee: Kenneth Joblon

Federal Cost: \$425,000

Industrial Dollars Share: \$792,471

Estimated Total Project Cost: \$1,217,471

Industrial Cost Sharing: 65%

Abstract of Work to be performed:

Brittany Dyeing & Printing Corporation will demonstrate a unique process that will more than double conventional textile processing rates. Traditional concepts concerning machine speed, chemical application, and machinery design are abandoned with this innovative textile finishing process. The goal of this project will be to assemble equipment that can finish textiles with 75% less moisture than conventional finishing process, thus increasing the capacity of the textile machines.



Buzzards Bay Project

May 1, 1996

Representative Peter I. Blute
United States House of Representatives
1029 Longworth House Office Building
New Jersey and Independence Avenues, S.E.
Washington, DC 20515

Dear Congressman Blute:

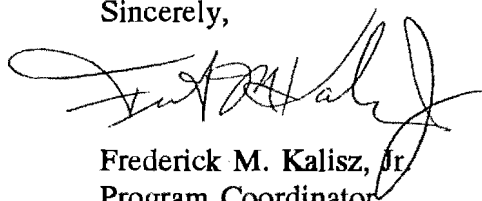
I am writing, as the program coordinator of the Buzzards Bay Project Toxics Use Reduction Program, to ask you to urge your colleagues on the Budget Committee not to reduce the energy conservation function of the budget. Specifically, we view a reduction in this category as detrimental to the future of such industrially oriented programs as NICE³ (National Industrial Competitiveness through Energy, Environment, Economics Program) which has been jointly sponsored by the Department of Energy and the Environmental Protection Agency. We anticipate that these committee discussions may begin as early as Thursday, May 2, 1996.

Our effort, a program of the Buzzards Bay Project which resulted from the National Estuary Program, has operated through the EPA's Pollution Prevention Incentive for States Program to address pollution prevention issues arising from industry. We have worked hard to provide the necessary non-regulatory assistance that so many of our industries located in southeastern Massachusetts have needed. Programs such as NICE³, go beyond the educational component and allow for these same industries to make major modifications in their processes not only to be environmentally safe but to be globally competitive. Currently firms in Massachusetts, and specifically in southeastern Massachusetts are vying for these programs' benefits under current funding. If successful this will generate additional interest of industry needing this type of technical and financial assistance not only to remain competitive but to remain in business.

Accordingly, we ask that you please bring these same concerns to the relevant Appropriations Committee Members at the proper time.

Thank you again for your service to the district and concern for southeastern Massachusetts.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred Kalisz, Jr.", written in a cursive style.

Frederick M. Kalisz, Jr.
Program Coordinator
Toxics Use Reduction Program



Buzzards Bay Project

February 20, 1995

To: Bob Cruise
Brittany Dyeing & Printing Corporation

From: Fred Kalisz, Jr.,
TUR Program Coordinator

Re: NICE³ Submittal

I spoke with John Rascko at OTA on this date for an update. John had not heard any news except that because of the work done on the Massachusetts submission (which you are part of), the entire package advanced to the next round of screening.

I contacted EPA for an advisory on the submittals progress and was informed of the following:

--during the middle of February - submittals that have advanced are being reviewed by two panels of technical staff.

--final round of review by yet another panel will take place during the week of March 11-15.

--final announcements shall be done in conjunction with activities planned by the federal agencies on or about April 20 (Earth Day).

Rascko was concerned if you had received a copy of the final submittal offered to EPA/DOE by the Commonwealth of Massachusetts of which your submittal was a part of. If you should have any questions, please give me a call [(508) 748-3600]. Best regards.





Buzzards Bay Project

March 13, 1996

To: Bob Cruise

From: Fred Kalisz

FAX TRANSMISSION - total length including cover sheet - 3 pages.

Update: **NICE³**

We've received the following additional correspondence that we've requested from Congressman Frank - this time to the regional head of the Department of Energy. I also spoke with EPA staffers in DC on Monday and Tuesday, and there has not been any movement in the selection process according to what they were able to find out. Any questions please give me a call.

BARNEY FRANK
4TH DISTRICT, MASSACHUSETTS

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(508) 674-3551

89 MAIN STREET
BRIDGEWATER, MA 02324
(508) 897-9403

FAX FROM THE WASHINGTON OFFICE OF
CONGRESSMAN BARNEY FRANK

TODAY'S DATE: 3-11-96

TO: FRED KARISZ

FROM: POZN KOVAR

FAX NUMBER: 508-748-3962

NUMBER OF PAGES [INCLUDING THIS ONE]: 3

If this fax does not transmit properly, please call 202-225-5931.

COMMENTS:

BARNEY FRANK
4TH DISTRICT, MASSACHUSETTS

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WASHINGTON, DC 20515-2104
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House of Representatives
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(508) 674-3551
88 MAIN STREET
BRIDGEWATER, MA 02724
(508) 697-9403

March 11, 1996

Mr. Hugh Saussy
Director
Dept. Of Energy Regional Office
1 Congress Street
Boston, MA 02114

Dear Mr. Saussy,

I am writing to give my very strong endorsement of the well prepared application submitted by the Commonwealth of Massachusetts on behalf of Brittany Dyeing and Printing Corporation of New Bedford for a grant under the National Industrial Competitiveness through Energy Environment Economics program.

The Brittany proposal is truly a win-win package for the New Bedford area. It combines important advances in environmental protection and energy efficiency with a significant improvement in Brittany's ability --and potentially other firms in the finishing industry --to compete internationally. In short, the proposal meets the key goals of the NICE-3 grant program, and I urge you to take favorable action on the application.

As you know, the textile finishing industry is a very high water volume industry, and the creative method proposed by Brittany to reduce water use is particularly appropriate for New Bedford, where the cost of the local water and sewer project has increased the need to conserve water. The fact that the Buzzards Bay Project, which performs such valuable work, is backing the proposal is, I believe, an excellent endorsement of its value from an environmental standpoint. In addition, the anticipated reductions in gas and electricity use are attractive, purely from a conservation point of view, but also because it is vital to economize in this area to improve the ability of American firms to compete in the international arena.

I also think it is noteworthy that this proposal, once its effectiveness is demonstrated, will have very valuable applications for other companies in the same industry (as pointed out in the application). More broadly, the proposal can be a model for improved efficiency for other sectors of the economy, since cutting waste, operational costs, and energy use while increasing production speed are all important goals for any company trying to compete in the current economy. Finally, with Brittany providing nearly two thirds of the cost, this proposal is an excellent example of how the private sector can cooperate responsibly with the government.

I believe the Brittany Dyeing grant application is a model for the kind of approach this country needs to take to remain competitive in an environmentally responsible manner, and to keep jobs in older manufacturing areas like New Bedford, and, again, I urge favorable action on the application.


BARNEY FRANK

BF/pk



Buzzards Bay Project

January 11, 1996

re: Application for NICE³ Grant Program
Brittany Dyeing and Printing Corporation


We are pleased to offer this letter of support for the grant application offered by Brittany Dyeing & Printing Corporation for consideration in the 1996 NICE³ program. As an initiative funded through the Environmental Protection Agency's *Pollution Prevention Incentive for States* Grant and the Commonwealth of Massachusetts Executive Office for Environmental Affairs' Office of Coastal Zone Management, we have worked on toxics use reduction and pollution prevention matters with Brittany's management team. As a long time established manufacturing operation in the City of New Bedford, Brittany has worked aggressively towards implementing water conservation efforts, with an end result of reducing consumption from 1 million gallons a day to 380,000 gallons through technological modifications. This effort, coupled with aggressive steps taken to identify significant problems in their waste water stream, demonstrates their interest and concern. The achievement of this level of environmental consciousness while maintaining a primary position in a highly competitive market is commendable. Brittany's management and operational team have participated in industry and community workshops, participated on our advisory board and have been responsive to requests made from industries in need of assistance.

Brittany's proposal is important in both long term transferability of technology and in continuing manufacturing operations and opportunities in the City of New Bedford. New Bedford currently has an unemployment rate of nearly 15% and is recognized as a major manufacturing center. Brittany's presence accentuates a positive in an area so largely characterized by economic decay.

Brittany's efforts to remain economically viable and environmentally responsible are clearly evident, and they are reflected in their interest in NICE³. The favorable consideration of the panels through this review process will result in a positive and proactive demonstration of support for a manufacturer, an industry, a community, our economy, and our environment.

Sincerely,


Frederick M. Kalisz, Jr.
Program Coordinator


Stephen J. McKenna
Environmental Planner

2 Spring Street, Marion, Massachusetts 02738 (508) 748-3600 Facsimile (508) 748-2845





Buzzards Bay Project

(FAX MESSAGE Page 1 of 1)

Mr. Peter Kovar
Office of Congressman Barney Frank
Washington, DC

Dear Peter:

As per our telephone conversations, we have learned that we have been submitted for consideration of funding through the Regional Administrators Office at EPA/Boston. Our efforts previously under the EPA PPIS (Pollution Prevention Incentive for States) Grant program proved very successful with hundreds of local firms having a point of contact on pollution prevention and toxics use reduction (TUR) within the community, two local companies being recognized as the Governor's TUR Award Recipients, and most importantly the work we had done with the Congressman in advancing the manufacturing processes issues of Brittany Dyeing & Printing and the eventual awarding of \$425,000.00 in a DOE grant to them.

We have further learned that this request to the Administrator was prioritized as the most important effort recognized by the Massachusetts/EPA Regional submission team that presented the proposal. I ask for to the Congressman's favorable endorsement of our efforts and in communicating to the Regional Administrator our significance to the community. The amount of the request is \$50,000.00 and consideration is currently underway.

Sincerely,

A handwritten signature in dark ink, appearing to read "Frederick M. Kalisz, Jr.", written over a horizontal line.

Frederick M. Kalisz, Jr.



A major focus of the **Buzzards Bay Project (BBP)** and a potential significant threat to human health and the environment, is the contamination of seafood, sediments and water quality by toxics substances. One of the eleven action steps included in the **BBP Comprehensive Conservation and Management Plan (CCMP)** is "reducing toxics pollutants". To accomplish this goal, the **Buzzards Bay Project Toxics Use Reduction (TUR) Program** was established in 1993 as part of the implementation of the *Buzzards Bay CCMP*.

For the past three years the **BBP/TUR** has successfully accomplished the goal of helping industrial, institutional and commercial entities reduce the use and discharge of toxic materials to Buzzards Bay and its watershed; as well as to further assist these same to comply with local and state discharge limits and meet toxic use reduction goals under the **Commonwealth's Toxics Use Reduction Act**.

Specific accomplishments resulting from establishing a planning committee of governmental and industrial leaders and our recognized *Buttonwood Workshop Series* have included: 13 workshops; 177 companies identified and introduced to TUR; preparation and assistance to companies resulting in the receipt of two statewide **Governor's Award for TUR** by New Bedford area companies in consecutive years; the receipt by Brittany Dying and Printing of a \$425,000 grant under the Department of Energy (DOE)/Environmental Protection Agency (EPA) initiated **NICE³** Program; and over 30 site visits with non-regulatory technical assistance in the area of TUR. In addition the program has been active in business, university and professional programs in the greater New Bedford area and has hosted two pollution prevention exhibitions at the local voc-tech trades school for industry, institution and commercial businesses.

The program seeks additional funding for the upcoming year in order to maintain:

- a monthly newsletter to identified business interests

- the continuation of the *Buttonwood Workshop Series* - a monthly seminars addressing current environmental/economic issues impacting local manufacturing/service industries;

- to continue to serve as a point of first reference/assistance in technical and non-technical business/environmental questions raised by business through the user friendly, non-regulatory presence that the **Buzzards Bay Project TUR Program** is widely recognized for.

- to increase the presentation and public understanding of pollution prevention/TUR through print and electronic media so that these techniques are more than best management practices but are transferred to employees as good housekeeping measures both at work and at home.

This has been a proven, manageable, and successful approach for the needs of the New Bedford Harbor Area while utilizing the talents of an established office and a designated staff assignment.

The Buzzards Bay Project Toxics Use Reduction Program will spend the next three months attending to the following tasks:

- continue to respond to the calls received on TUR related matters by industry that has utilized the program over the preceding three years.
- continue the publication of Options, the monthly program newsletter on pollution prevention and TUR
- present two workshops regarding the operation and enhancements currently under way by the City of New Bedford with their operation of a newly constructed secondary waste treatment plant.
- conduct on site visits with local industry interested in perusing and developing proposals for 1997 awards and review programs conducted by state and federal agencies.
- pursue additional opportunities for funding, keeping active the non-regulatory pollution prevention and toxics use reduction efforts the Buzzards Bay Project has been recognized for over the past three years.



June 4, 1996

Buzzards Bay Project

Mr. Dwight Peavey
The United States Environmental Protection Agency
Region 1 - JFK Federal Building
1 Congress St.
Boston, MA 02203

Dear Dwight:

It was certainly a pleasure to meet you and discuss our program efforts last week at the JSI educational workshop. I was especially pleased with the opportunity we were afforded by the various agencies present and the acknowledgement of our work in the field of *Toxics Use Reduction and Pollution Prevention*.

As per our conversation I am forwarding you the following proposal for the continuation of our efforts in the area of **toxics use reduction**. As you are aware we were originally funded under the PPIS program of EPA issued in November 1992 and activated as of May 1993. Over the period of time originally prescribed for delivery of services - as well as the period granted through an extension because of the prudent management of grant funds, we have been able to amass a series of accomplishments which have truly brought distinction to the Buzzards Bay Project. Enclosed with this letter is a time line of the goals prescribed in the original grant document as well as what has been accomplished. More specifically, enclosed is a proposal which would allow for the continuation of our efforts enumerated by the specific tasks necessary to successfully accomplish them.

When the first grant proposal was presented, the BBP seized an opportunity to utilize PPIS funding in accomplishing a significant element of the Buzzards Bay Project's Comprehensive Conservation and Management Plan, the targeting of **toxics use reduction**. Today we look with great pride at these accomplishments in TUR and present with great confidence what we can yet achieve, to further compliment the introduction of the secondary waste water treatment facility in New Bedford, and further advance the cooperative nature of the Toxics Use Reduction Act of Massachusetts by making those laws more than guidance but active and beneficial - environmentally and economically - to industry and residents of the region serviced.

Sincerely,

A handwritten signature in dark ink, appearing to read "Frederick M. Kalisz, Jr.", written over a horizontal line.

Frederick M. Kalisz, Jr.
Program Coordinator
Toxics Use Reduction Program

encl:

2 Spring Street, Marion, Massachusetts 02738 (508) 748-3600 Facsimile (508) 748-2845

TOXICS USE REDUCTION

A Proposal for the Continuation of Programming



May 14, 1996
For Immediate Release
For Additional Information Contact:
Frederick M. Kalisz, Jr., Program Coordinator
Buzzards Bay Project -Toxics Use Reduction Program
2 Spring St.
Marion, MA 02738
(508) 748-3600
(508) 748-3962 - fax

The Buzzards Bay Project - Toxics Use Reduction Program is pleased to announce that Brittany Dyeing & Printing Corporation of New Bedford has been awarded a United States Department of Energy grant of \$425,000 to perform major process modifications necessary to implement innovative textile finishing. Preliminary notification was made to the Buzzards Bay Project by Congressman Barney Frank, who according to Project officials, has worked long and tirelessly to bring this economic development opportunity to the Whaling City. According to Frederick M. Kalisz, Jr., program coordinator for the Toxics Use Reduction component of the Project "Congressman Frank has worked with us since December in making sure Clinton Administration officials understood the impact that such innovative technology would make upon the local economy". The process introduced in the grant application will allow for the modernization of processes at Brittany which will make them more competitive in the global market. "We often hear of the need to compete in the global market - the results of this grant process will mean that Brittany will be a player equipped to compete in the global market" Kalisz said.

The grant program, NICE³ (National Industrial Competitiveness through Energy, Environment, Economics) provides funding to state and industry partnerships for projects that develop and demonstrate advances in energy efficiency and clean production

technologies. The NICE³ program is designed to improve competitiveness, foster energy efficiency, and reduce industrial wastes. Industry applicants must submit project proposals through a state energy, pollution prevention, or business development office. In Massachusetts, the grant process is administered by the Office of Technical Assistance (OTA) for Toxics Use Reduction of the Executive Office of Environmental Affairs. Once Brittany expressed interest, they participated in a workshop and plan submission assistance through the Office of Technical Assistance. "Brittany first learned of the grant program through the Buzzards Bay TUR newsletter which we publish monthly to local industry. Our staff then worked with company officials to connect with OTA staff and the process begun" Kalisz said. "We are thrilled with the selection of Brittany as one of only sixteen companies in the country this year - the Buzzards Bay Project TUR program was developed to be a "door opener" to local industry to just these types of opportunities, and it's obvious that it has been a success". The Buzzards Bay Project Toxics Use Reduction Program is an initiative which has been funded through the Office of Coastal Zone Management of the Executive Office of Environmental Affairs and by the United States Environmental Protection Agency's Pollution Prevention Incentive for States Program. Kalisz along with his staff of Steven McKenna and Kathryn Latimer work with industry in New Bedford that through the wastewater treatment system and through permitted discharge impact the waters of Buzzards Bay. The Buzzards Bay Project operates under the direction of Dr. Joseph Costa.

Brittany Dyeing & Printing Corporation will demonstrate a unique process that will more than double conventional textile processing rates. Traditional concepts concerning machine speed, chemical application, and machinery design are abandoned with this

innovative textile finishing process. The goal of this project will be to assemble equipment that can finish textiles with 75% less moisture than conventional finishing process, thus increasing the capacity of the textile machines. The entire cost of the innovative textile finishing process is anticipated to be nearly \$1.2 million with Brittany's share of the effort being nearly \$800,000.

Brittany Dyeing & Printing Corporation has been in business and the processing of textiles in the same location since 1939. Equipment, formulations, and processing methods have been updated through the years to adapt to different fibers, fabrics, and customer requirements. Currently, Brittany is one of the most modern finishing facilities in the United States. State of the art equipment, the latest technologies, and a dedicated staff of trained professionals keeps Brittany at the top of its craft. Brittany is uniquely qualified to implement the new finishing process because it is a recognized leader in high speed bleaching, printing, and inspection of fabric.

The Brittany team is lead by Kenneth Joblon as President and CEO. Mr. Joblon has been running the company, which was founded by his father, since 1972. The younger Joblon has overseen a retooling of the company that included the replacement of every piece of equipment in the plant over the last fifteen years. Brittany's technical staff is led by Robert Cruise who will act as Project Engineer for this project. Mr. Cruise is a graduate of Providence College with a Bachelor of Science degree in chemistry. He graduated Cum Laude and has been involved in textile finishing for over twenty years.

Formal presentation of grant awards will be made at a reception to be held on May 29, 1996 at the Rayburn House Office Building. Kenneth Joblon who will be in Washington

DC for this event is expected to meet with Secretary of Energy Hazel R. O'Leary who has been invited to address the recipients.

###

J6E1YS

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Congress of the United States
House of Representatives
Washington, DC

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BRIDGEWATER, MA 02324
(508) 697-9403

FAX FROM THE WASHINGTON OFFICE OF
CONGRESSMAN BARNEY FRANK

TODAY'S DATE: 5-13-96TO: FRED KARISZFROM: PETER KOVARFAX NUMBER: 508-748-3962NUMBER OF PAGES [INCLUDING THIS ONE]: 3

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COMMENTS:

Congrats!

YOU ARE CORDIALLY INVITED TO ATTEND

THE NATIONAL INDUSTRIAL COMPETITIVENESS THROUGH
ENERGY ENVIRONMENT & ECONOMICS
(NICE³)

INAUGURAL AWARDS CEREMONY & RECEPTION

"PARTNERING FOR INDUSTRIAL INNOVATION & EXCELLENCE IN
ENERGY EFFICIENCY & POLLUTION PREVENTION TECHNOLOGIES"

May 29, 1996 • 6:00 p.m. • Rayburn House Office Building, Room B-354
Washington, D.C.

Information/RSVP: Demetrius M. Parker, (202) 898.6340 or David Jones, (202) 586.8130

The Department of Energy, Office of Industrial Technologies cordially invites you to attend its inaugural NICE³ awards ceremony. Officials from federal and state government, industry and non-governmental organizations will gather to celebrate the exceptional efforts, successes and future of this strategic partnership that is providing America with the best energy-efficient, pollution-preventing technologies in the world.

Four categories of awards will be presented. Commercialization Achievement Awards will be presented to four companies: Pegasus Technologies of Ohio; Beta Control Systems of Oregon; Telonics USA of New Jersey, and, Caterpillar, Inc., of Illinois. Management and Communications Awards will be given to four states that have submitted outstanding proposals that have won NICE³ grants. These proposals exemplified outstanding management, and marketing communications of the NICE³ program to the companies in their locales. These states are: Ohio, Massachusetts, Michigan, and Pennsylvania. Technical Support and Communications Awards will be given to six DOE Regional Service Office directors for their work with the states and industry on the NICE³ program. NICE³ Grant Awards will be presented to the approximately 16 new industry winners for 1996.

Invited speakers and guests include Secretary of Energy Hazel R. O'Leary; Congressman Bob Franks (R-NJ) and Congressman Marty Meehan (D-MA), Co-Chairs, Congressional Manufacturing Task Force; Assistant Secretary for Energy Efficiency and Renewable Energy, Christine Eavin; Deputy Assistant Secretary, Office of Industrial Technologies, Denise Swink; 80 state agency representatives and congressional representatives and staff from the award winning states; staff and industry partners of the OIT, NICE³ and Industries of the Future programs.

Another highlight of the evening will be the announcement of two exciting developments regarding the new strategic alignment between the NICE³ program and the Industries of the Future program, and the addition of an industry to the Industries of the Future teams.

Please make your reservation now to attend this new forum celebrating the successes of the partnership between DOE, OIT and industry that has enhanced energy efficiency, industrial competitiveness and environmental stewardship.

This event is generously supported by the Congressional Manufacturing Task Force and the Electric Power Research Institute (EPRI).

NICE

Industries could
receive financial
assistance to
demonstrate
energy-efficient,
pollution-preventing
technologies?

NICE³

National
Industrial
Competitiveness
through
Energy
Environment
Economics

Successful NICE³ Projects Reduce Pollution and Improve Energy Efficiency and Economics

- PPG Industries in Ohio has developed and implemented a system to recover and reuse paint wastewater.
- TMC in Texas has commercialized a system to recover spent methanol in the production of hydrogen peroxide.
- DuPont-Merck in New Jersey has successfully demonstrated ultrasonic technology to clean storage tanks for the pharmaceutical industry, replacing solvent cleaning.
- Damage Protection Products in California has produced a recyclable freight pallet from postconsumer wastepaper.
- AAP St. Marys in Ohio is more efficiently remelting machined chips from cast aluminum automobile wheels, and making new wheels.
- AMPCO Metal Manufacturing in Ohio introduced induction heating to replace continuously heated, fossil fired, holding furnaces (tundish).
- Beta Control Systems in Oregon has developed a closed loop hydrochloric (HCl) acid recovery system for small to mid-size steel companies by integrating innovative materials with automatic controls.
- Pegasus Technologies Inc. has developed a closed-loop on-line neural network for utility boilers to optimize combustion and minimize NO_x emissions.

Federal Grants Fund Industry Projects

The U.S. Department of Energy (DOE) sponsors an innovative, cost-sharing program to promote energy efficiency, clean production, and economic competitiveness in industry. The grant program, known as NICE³, provides funding to state and industry partnerships for projects that develop and demonstrate advances in energy efficiency and has sponsored 41 projects, totaling \$12.3 million of DOE funding.

Industry applicants must submit project proposals through a state energy, pollution prevention, or business development office. Funds are awarded to state/industry partnerships that can match the federal funds at least dollar for dollar. Awardees receive a one-time grant of up to \$400,000 for the proposed project. After the initial funding, the awardee is expected to commercialize the process or technology.

Eligibility & Evaluation Criteria

Industrial firms in conjunction with state agencies throughout the U.S. are eligible to apply for the NICE³ grant program. Proposals are accepted for a variety of industrial applications that promote pollution prevention and energy efficiency.

The following categories are ineligible for funding:

- Nuclear radiation/waste
- Electromagnetic radiation (EMF)
- Waste treatment/disposal
- Hazardous waste site remediation
- Cross-media contamination shifts
- Municipal solid waste collection or separation

NICE³ project proposals are evaluated on the following criteria:

- Concept description
- Innovation
- Cost efficiency
- Applicant capabilities
- Energy savings
- Competitiveness
- Commercialization/marketing plan
- Impact on jobs

NICE³ Grant Program Features

The overall goal of NICE³ is to improve industry energy efficiency, reduce industry's costs, and promote clean production.

Grants support technology development that can significantly conserve energy and energy-intensive feedstocks, reduce industrial wastes, prevent pollution, and improve industrial cost competitiveness. Industry/state partnerships demonstrate innovative technologies. Grants fund up to 40% of total project cost for up to 3 years.

DOE achieves this goal by sponsoring projects that:

- Demonstrate successful industrial applications of energy-efficient technologies that reduce costs to industry and prevent pollution in Standard Industrial Classification (SIC) 20-39 with emphasis on aluminum, chemicals, forest products, glass, metal casting, petroleum refining, and steel industry sectors.
- Identify and implement efficiency improvements in material inputs, processes, and waste streams to enhance U.S. industrial competitiveness.



Buzzards Bay Project

May 16, 1996

Congressman Barney Frank
Rayburn House Office Building
S. Capital St. & Independence Ave., S.E.
Washington, DC 20515

Dear Congressman Frank:

I would like to express my personal thanks to you for your outstanding efforts in working to secure the recent NICE³ Award given by the Department of Energy to Brittany Printing & Dyeing Corporation of New Bedford. The news was the highpoint to what has been nearly a three year effort to compliment the efforts of federal and state agencies in bringing to the forefront pollution prevention and toxics use reduction awareness to the industrial community around the New Bedford Harbor area, impacting Buzzards Bay.

I am sure that by now you have seen the headline of the recent Standard Times issue heralding the receipt of this award - an award that has been publicly attributed to your diligence and support. An impact has certainly been made, an impact in the industrial sector that is all too rare. I would also wish to express appreciation for the staff in your office, Peter Kovar in particular, who has worked to insure our communications and efforts were clear to you and relaying timely information back to us.

We look forward to having you join us for a local - employee oriented presentation to be conducted early in June. We hope to learn from your office when you may be available during a work day.

Thank you again, our community is that much better today due to your continuing concern.

Sincerely,

Frederick M. Kalisz, Jr.
Program Coordinator
Toxics Use Reduction Program



Timeline for 1997 Projects

- Optional two-page abstracts accepted through August 2, 1996. (Industries will receive a prompt response to their abstract.)
- Solicitation opens: September 3, 1996
- Solicitation closes: January 15, 1997
(States may have their own deadline to meet timetable.)
- Evaluations by DOE, national laboratories, support offices, and a national selection panel completed by March 14, 1997.
- Awards announcement: Earth Day, on or about April 21, 1997.
- For 1998, optional two-page abstracts will be accepted through August 3, 1997.

For More Information

Please contact your state energy office, DOE's Golden Field Office (GO), or DOE headquarters. Access via Internet is also available.

GO: (303) 275-4728; (303) 275-4723

DOE: 1 (800) DOE-EREC; (202) 586-1641

1 (800) 273-2957 (for hearing impaired)

Internet: <http://www.nrel.gov/documents/nice3>



U.S. Department of Energy
Office of Industrial Technologies

Produced for the U.S. Department of Energy (DOE) by the National Renewable Energy Laboratory, a DOE national laboratory.

DOE/GO-10096-763
DE96000350
March 1996



Printed with a renewable-source ink on paper containing at least 50% wastepaper and 20% preconsumer waste

NICE3

FY 1997 Solicitation Request Form

Please send a copy of the NICE3—FY 1997 solicitation/grant application form to:

Name _____

Company _____

Address _____

City/State/Zip Code _____

Phone/FAX _____

Internet Address _____

SIC Code/Industry _____

How did you learn about the NICE3 program? _____

Printed with a renewable-source ink on paper containing at least 50% wastepaper, including 20% preconsumer waste

Tear and mail

FY 1997 solicitation/grant application mailing. Mailings will occur beginning September 3, 1996.

Buzzards Bay Project Toxic Use Reduction Program

Semi-annual Progress Report

Report No.4

March 1995

Prepared by Fredrick M. Kalisz, Jr.
Program Coordinator
Toxic Use Reduction Program
Buzzards Bay Project
Massachusetts Coastal Zone Management



Buzzards Bay Project

INTRODUCTION

Two years ago the Buzzards Bay Project Toxics Use Reduction Program (BBP/TUR), was created to implement the toxics use reduction goals set forth in the Buzzards Bay Comprehensive Conservation and Management Plan. This program is jointly funded by the Environmental Protection Agency's Pollution Prevention Incentives for States Program, and by the Commonwealth's Executive Office of Environmental Affairs. The support and assistance from the Massachusetts Office of Technical Assistance for Toxics Use Reduction and the Department of Environmental Protection has been an integral part of this program's success. As a result the BBP/TUR program has developed a strong working relationship with local industries in assisting them with their reduction efforts.

The original grant proposal fashioned after the recommendation presented in the Comprehensive Conservation and Management Plan (CCMP) of the Buzzards Bay Project outlined an aggressive seven step format under which the toxics use reduction component of the project would be achieved. These seven steps include: the hiring of a program coordinator, the formation of an advisory committee, identification of key businesses and surveying their needs; the development

and facilitation of workshops, the assembling, development, and distribution of printed materials, participation and initiation of on-site technical assistance visits to industry regarding toxics use reduction, and finally the reporting of progress and achievements on a periodic basis to respective interactive agencies.

OVERVIEW

The Buzzards Bay Project Toxics Use Reduction Program (BBP/TUR) has continued to work towards the implementation of these various components detailed in the CCMP. We continue to identify key businesses and industries and assist them with their changing toxics use reduction needs. Through our work on the aforementioned components we have achieved our goal of establishing an identity in the New Bedford Area. We are extremely proud of the progress we have made in area awareness, as well as promoting toxics use reduction as a cost effective, economically sensitive measure. Our impact is visible through increased attendance at BBP/TUR sponsored workshops; requests for information; and the level of questioning received regarding technical assistance, permitting, regulatory and other TUR issues.

SPECIFIC EVENTS/GOALS

New Bedford Waste Water Division

The BBP/TUR continues to work closely with the City of New Bedford's Division of Waste

Water in promoting TUR efforts to industries connected to the New Bedford Municipal Collection System. Construction has begun on the new New Bedford secondary wastewater treatment plant. We have toured the construction site on several occasions to monitor progress. The BBP/TUR program has also shared training materials in hopes of greater industry appreciation of the court mandated Secondary Wastewater Treatment Plant construction. This knowledge helped us to better inform businesses of the potential impact of the operation of this Publically Owned Treatment Works (POTW) on their future discharge limits. Our close interaction with the New Bedford Industrial Pre-Treatment Program (IPP) has led to the identification of industries whose effluent may have difficulties meeting stricter discharge limits. Two industries targeted were food processing and textile related industries. We will continue to work closely with New Bedford POTW and the IPP in anticipation of a spring 1996 online operations date. We anticipate BBP/TUR's further involvement will be needed in the area of industrial education pollution prevention (P²) promotion.

GOVERNOR'S AWARD

The BBP/TUR has taken an active role in encouraging businesses and industries to apply for the Governor's Award Program for Outstanding Achievement in Toxics Use Reduction. This program is a necessary part of environmental TUR reform. It is a vital link in promoting a positive working relationship between government and industry. We furnish information about the awards program through direct mail and work with industries to facilitate the applications process. In some cases we actively solicit and encourage the application of specific companies

which we consider to have accomplished significant TUR efforts. The award gives business an opportunity to be recognized for their environmental policies. A company that utilized our assistance was Johnson and Johnson Professional Inc. (JJPI). In 1994 they were selected to receive a Governor's Award and they have credited the BBP/TUR program for help in the application process. The positive public recognition given to Johnson and Johnson Professional Inc. has prompted other businesses to apply for the award. This exposure was extremely helpful to both the TUR program as well as JJPI. This past year Star Plating Company requested our assistance on the application process and to review their final document (Star Plating went on to receive an award as well). Through this interaction the BBP/TUR has been identified by industry as a helpful agency within government.

WORKSHOPS

Increased industry recognition of our program and services has resulted in a steady increase in attendance to our industry TUR workshops. Through our workshops we have tried to address specific areas within industry that need TUR information and assistance. Due to our association with the Massachusetts Office of Technical Assistance (OTA), the Department of Environmental Protection (DEP), the Environmental Protection Agency (EPA), we have been able to draw upon these resources for the development and presentation of our workshops. Through our assistance from these groups we have been able to offer very specific technical and regulatory information to industries on a broad range of TUR and pollution prevention issues.

Making Compliance Work for You was one such workshop cosponsored by OTA in

conjunction with the BBP/TUR. The focus of this workshop was to provide new information, such as Reasonably Available Control Technology (RACT) to impacted businesses. This workshop included the demonstration of new software for calculating the volatile organic compound (voc) content of coatings, permitting, and innovative pollution prevention projects.

Pollution Prevention and Environmental Management for Marinas and Boat Repair Facilities focused on pollution prevention and on non-point source pollution generated in these industries. The people targeted to attend encompassed various areas of management and operations at marinas and boat yards, harbor masters, local officials and the general public. Hand-outs and informational packets featuring a model marina environment, and recognized best management practices were distributed. Speakers included: representatives from Massachusetts Maritime Academy, US Coast Guard, The Office of Technical Assistance, the University of Rhode Island Coastal Resources Center. Also presenting was the Department of Fisheries, Wildlife and Division of Law Enforcement of The Commonwealth of Massachusetts.

Clearing the Air on Clean Air, was a teleconference workshop broadcasted from the University of Tennessee for area perchloroethylene (PERC) drycleaners. The four hour long broadcast educated perc drycleaners how to comply with new EPA regulations. It was an interactive conference where attendees could ask questions of the conference speakers. The BBP/TUR program made this EPA sponsored conference available to local perc drycleaners. The conference reviewed three EPA compliance forms and demonstrated exactly how to complete these forms. In addition, the BBP/TUR effectively networked with the New Bedford Public School System - utilizing classroom and satellite technology for the transmission and presentation of this workshop. Our workshop series continue to be an integral part of the BBP/TUR program.

POLLUTION PREVENTION DAY

In the Spring of 1995, The BBP/TUR developed and sponsored our first Pollution Prevention Day, dedicated to industrial environmental issues. This event provided a forum for local industries to discuss common problems and challenges. It also offered participants a unique opportunity to meet the governor and his cabinet members and discuss issues that affected them directly. This P² Day provided an opportunity for Governor William Weld to attend and participate in a local environmental event as part of his annual cabinet day activities.

Pollution Prevention Day attendees were representatives of local industries as well as schools, healthcare, recreation and even local residents. The day was geared to provide exhibits, information, and highlight developments in toxics use reduction and pollution prevention. The BBP/TUR researched extensively to put this program together and attempted to provide an interest for everyone invited to attend. Several different speakers were scheduled throughout the day. Representatives of OTA spoke about the impacts of TUR and assistance available. Secretary of Environmental Affairs Trudy Coxe spoke about pollution prevention and the direct benefits to both the environment and industrial community. Representatives of local companies with success stories explained results and how they implemented changes. Greater New Bedford Regional Vocational Technical High School prepared a school lunch program based on under utilized fish species. Massachusetts Maritime Academy was an exhibitor as well as UMASS Dartmouth. Education and participation were the key components that made P² Day a success.

Introduced at this time was the concept of the Be²st Effort, created by the Buzzards Bay Project. *Business Economically and Environmentally Sustainable for Tomorrow* (Be²st) is

intended to serve as a symbol in the community of industry commitment to economic and environmentally sustainable business practices. We hope to build upon this concept in the months to come promoting environmentally safe and economically viable operations.

REVERE SINK : A CASE STUDY

The BBP/TUR has been involved in building a bridge between industry and environmental regulators. Our work at Revere Sink is an example of our efforts. The BBP/TUR Program was contacted by Mr. Alfred Fernandes from Revere Sink Corporation, after they had been issued an order of non-compliance (NON) by the Massachusetts Department of Environmental Protection. Mr. Fernandes had been familiar with us due to earlier BBP/TUR programming efforts. The BBP/TUR had been impressed by Revere Sink's efforts to reduce their toxics use through the implementation of capital intensive process modification. Upon their request we reviewed the order of non-compliance which was for incomplete submission of the Commonwealth's required toxics use reduction plan (TURP). Once we understood the situation, we became the liaison between Revere Sink and the Department of Environmental Protection (DEP). We also provided DEP with documentation of a previous cooperative interaction between the Office of Technical Assistance & BBP/TUR and Revere Sink. The major issue was interpretation of the Toxics Use Reduction Act (TURA) and proper submission of a Toxics Use Reduction Plan (TURP). The BBP/TUR assisted them in identifying state certified TUR planners and also assisted in reviewing and submitting the modified final plan. We were instrumental in providing the platform between Revere Sink and the Department of Environmental Protection for a negotiated settlement; a

settlement which was greatly reduced because of the timeliness of response and attention to detail. The BBP/ TUR provided a service which made the process of compliance easier for all concerned and without detrimental long term financial sanctions levied against Revere Sink.

OPTIONS

As of October of 1994 *Options* (our newsletter) was produced on a monthly basis. Through this industry newsletter we are able to educate and increase awareness of pollution prevention, problems and achievements, and other P² activities. *Options* has been a very effective vehicle to reach area businesses and educate them about our services and program. We have informed our readers of the TURA Amnesty Program, updated the public on the status of the new secondary waste treatment plant, and have kept professionals aware of educational and certification upgrade opportunities.

RELATIONSHIPS

The BBP/TUR Program has built strong working relationship with the following organizations; UMASS Southeastern Massachusetts Manufacturing Partnership, New Bedford Area Chamber of Commerce, The Massachusetts Office of Business Development (MOBD) - Southeastern Regional office, City of New Bedford - Waste Water Division, City of New Bedford - Water Department and Northeast Waste Management Officials Association (NEWMOA). These relationships are

essential to the continued success of the project. Interaction with these different agencies has provided the opportunity to share accomplishments and information.

AUDIT

In October of 1994, the BBP/TUR program complied with a mandatory review as requested by the Office of Prevention, Pesticides and Toxic Substances of the United States Environmental Protection Agency. In order for the EPA to gauge the effectiveness of grant funds supporting state pollution programs, they needed a common denominator. The audit, which was conducted by ICF Incorporated, was directed to agencies that received PPIS funding. Responses to a questionnaire prepared by ICF are attached to this report.

CONCLUSION/FUTURE GOALS

We have been extremely busy over the last six months. In gauging the effectiveness of our efforts, we are making a positive impact on industry with regards to toxics use reduction. Through educational workshops and recognition programs as a resource for current information, local industry has benefitted from our existence. We hope to broaden the range of our network in the next few months. New programming we plan to implement in conjunction with other agencies includes the EPA's Pitstop Program. Preliminary meetings with secondary level

vocational educators have provided the entry to sharing this programming with future motor vehicle mechanical repair and body technicians. As we enter another reporting period we hope to promote industrial toxics use reduction through a newspaper series educating the general public about TUR and P². The BBP/TUR would also like to investigate opportunities to utilize local broadcast media for community wide educational workshops - promoting TUR for the home as well as the workplace, and informational briefings on TUR impacts and industry advancement.

Acronyms

BBP/TUR

The Buzzards Bay Project Toxics Use Reduction program was founded under the CCMP of the Buzzards Bay Project. The Toxic Use Reduction Program is devoted to help industrial, institutional and commercial entities reduce the use and discharge of toxic materials to Buzzards Bay and its watershed and further help them to comply with state and local discharge limits and meet toxic use reduction goals under the Commonwealth's Toxic Use Reduction Act.

CCMP

The Buzzards Bay Comprehensive Conservation and Management Plan. This plan outlined the BBP, its conception, and project's goals.

EOEA

The Massachusetts Executive Office of Environmental Affairs. A cabinet level secretariat whose principal authority is to implement and oversee state policies that preserve, protect and regulate natural resources and the environmental integrity of the Commonwealth of Massachusetts.

OTA

The Office of Technical Assistance for Toxic Use Reduction, a non-regulatory state agency. It provides services to business for reducing their toxic use; such as audits, seminars, information, also free training materials and information to plant manager to develop TUR programs at their facilities.

DEP

The Department of Environmental Protection. The DEP administers most of the Commonwealth's environmental regulatory programs. These programs address a variety of concerns including air and water quality, solid and hazardous waste disposal, and development of wetlands and waterways.

BBP

The Buzzards Bay Project is one of the first estuary programs in the country. It was initiated in 1985 under the joint management of EPA and the Massachusetts EOEA. From the beginning the project had a threefold objective: 1) to set up a management structure to coordinate project activities and help achieve long term goals; 2) to identify and research the priority water quality problems in Buzzards Bay; 3) based upon these findings, to develop a management plan

for the protection of the Bay's water quality and valuable resources.

TUR

Toxics Use Reduction. This term refers to the elimination or reduction of toxics released into the environment or reduced or eliminated from processes.

IPP

Industrial Pre-Treatment Program is responsible for establishing and enforcing rules and regulations for industries discharging into the POTW.

POTW

Publically Owned Treatment Works.

P²

Pollution Prevention. Anything relating to reducing, eliminating, or preventing pollution. Such as education, pretreatment, toxics use reduction, and scientific measures.

RACT

Reasonably Available Control Technology. RACT regulations are of the primary methods of controlling the release of volatile organic compounds into the atmosphere.

VOC

Volatile Organic Compounds are toxins that are released into the atmosphere and considerably lower air quality. These emissions are regulated by the DEP under Title 5 air emission regulations (310 CMR 7.18).

Be²st

Business Economically and Environmentally Sustainable for Tomorrow. This concept created by the BBP/TUR program is intended to serve as a symbol in the New Bedford Area as a commitment to economic and environmentally sustainable business practices.

TURA

The Toxics Use Reduction Act of 1989. Massachusetts signed into law the act as a measure to reduce the amounts of toxics released into the environment. The act provided threshold limits, set up user fees, created the Office of Technical Assistance for Toxic Use Reduction as well as the Toxics Use Reduction Institute.

TURP

Toxic Use Reduction Plan. Industrial and commercial businesses are required to implement and created a toxics use reduction plan. This plan is required by The TURA 1989 to reduce toxics used in processing.

UMASS/SMMP

University of Massachusetts at Dartmouth, Southeastern Massachusetts Manufacturing Partnership is a regional development agency servicing the communities of Attleboro, Brockton, Fall River, New Bedford and Taunton.

NEWMOA

Northeast Waste Management Official's Association is a nonprofit interstate association whose membership is composed of the hazardous and solid waste, pollution prevention, and waste site cleanup program directors for state environmental agencies in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont.

MOBD

The Massachusetts Office of Business Development - Southeastern Region, assists Massachusetts's Businesses in creating and maintaining jobs and works to attract new businesses and to facilitate business relocation to or expansion in the state.

PPIS

The Pollution Prevention Incentives for States. This grant program was conceived to provide seed money to the states to establish pollution prevention programs. This is the grant program that provided funding for the Toxic Use Reduction program of the BBP.

Buzzards Bay Project Toxic Use Reduction Program

Semi-annual Progress Report

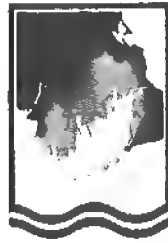
Report No.5

September 1995

**Prepared by Fredrick M. Kalisz, Jr.
Program Coordinator
Toxic Use Reduction Program
Buzzards Bay Project
Massachusetts Coastal Zone Management**

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Buzzards Bay Project

INTRODUCTION

The funding for the Buzzards Bay Project Toxics Use Reduction Program (BBP/TUR) comes from the Environmental Protection Agency's Pollution Prevention Incentives for States Program and by the Commonwealth's Executive Office of Environmental Affairs. The BBP/TUR was established in order to accomplish the toxics use reduction goals as set forth in the Buzzards Bay Comprehensive Conservation and Management Plan.

The Comprehensive Conservation and Management Plan (CCMP) of the Buzzards Bay Project, provided an outline for the grant proposal. This proposal applied an aggressive seven step agenda that would fulfill the toxics use reduction component required by the CCMP. These seven steps included: the hiring of a program coordinator, the formation of an advisory committee, identification of key businesses and determining their needs; the development and facilitation of



workshops, the assembling, development, and distribution of printed materials, participation and initiation of on-site technical assistance visits to industry regarding toxics use reduction, and eventually the reporting of progress and achievements on a periodic basis to respective interactive agencies.

OVERVIEW

The Buzzards Bay Project Toxics Use Reduction Program continues to identify key businesses and industries and assists them with their diverse toxics use reduction and pollution prevention needs. We are most proud of the locally based educational resources we offer to business/industry. We have succeeded in positively promoting toxics use reduction efforts as cost effective, environmentally responsible management tools by providing valuable educational resources. As a result of the BBP/TUR's efforts the concept of toxics use reduction is familiar to the New Bedford Area.

STAFFING ADJUSTMENTS

During this reporting period program coordinator Frederick M. Kalisz Jr. was

granted a leave of absence from August 28 through the end of November. Steve McKenna, program assistant continued to work towards implementing TUR efforts within area industries.

SITE VISITS

The continued success of the BBP/TUR's stems directly from the site visits that our staff coordinates. We tour plant operations, oftentimes with the assistance of the Office of Technical Assistance. Upon careful review, analysis and discussion with local municipal officials, the BBP/TUR offers options leading to pollution prevention and toxic use reduction methods implementation. During this reporting period we visited the following plant operations: Johnson and Johnson Professional, Polar Packaging, Commonwealth Electric (canal plant), Star Plating, Frionor USA, Revere Sink, New Bedford Publically Owned Treatment Works (NBPOTW) and Fiber Leather. These site visits were site specific, each one addressing various pollution prevention issues and individual TUR challenges. The resulting environmental and economical challenges arising out of these visits presents us with future direction and results which validate the success of our program.

NEW BEDFORD WASTE WATER DIVISION

The BBP/TUR continues to work closely with the City of New Bedford's Division of Waste Water in promoting TUR efforts to industries connected to the New Bedford Municipal Collection System. Construction is ahead of schedule and the plant is expected to begin operating in early 1996. When operations begin, the Environmental Protection Agency will issue new discharge limits for the plant as part of the new NPDES (national pollution discharge elimination systems) permit. These limits will be lower in many categories. Therefore, the City will have to lower the discharge limits in the sewer connection permits for customers in the Industrial Pre-treatment Program (IPP). Presently there are a number of facilities which are minimally meeting current discharge limits for various permitted substances. When the discharge limits are lowered with the opening of the new treatment plant, these facilities are going to be severely impacted. The City will then be forced to issue industries fines for non-compliance, and possibly curtail operations if they continue to fail to meet discharge limits. The results of this would then pose an adverse economic impact upon employees as well as the community. In the city of New Bedford there are few manufacturing operations, any loss in manufacturing opportunity immediately affects the community adversely.

In response to this potential impact to industries, the BBP/TUR has begun an effort to contact and educate industries in this situation. This effort has been made in conjunction with the New Bedford Wastewater Division. Through information and data from the Industrial Pretreatment Program (IPP), we have been able to address industries and specific facilities which have the greatest potential to be impacted.

Our efforts have included a general public education campaign conducted through a series of articles in our monthly newsletter. These articles were designed to continually inform and remind facilities about the construction and impending opening of the wastewater plant. A monthly "plant update" and various articles about future discharge limits and future rates served to create an awareness among local industries. Our workshops during this period were also designed to address potential problem areas, and as a result of this cohesive working relationship, Vincent Furtado of the New Bedford Wastewater Division was a keynote speaker at our *Impacting Wastewater* workshop. Mr. Furtado is the IPP Coordinator, and his insight and advice were very helpful at this well attended workshop. We hope to continue to assist business/industry in complying with the new discharge limits scheduled for introduction in the Spring of 1996.

GOVERNOR'S AWARD

The BBP/TUR has taken an active role in encouraging businesses and industries to apply for the Governor's Award Program for Outstanding Achievement in Toxics Use Reduction. We furnish informational packages about the award to businesses on our mailing list. These packages include: a letter offering our services and support, brochures explaining the award as well as past recipients, and the entry form. Through our site visits we assess candidates that should be recognized for their implementation of TUR reform. We guide the selected companies through the applications process. Two companies that utilized this type of assistance were Johnson and Johnson Professional Inc. (JJPI), (1994 Governor's Award recipient) and Star Plating (1995 Governor's award recipient). The positive public recognition given to Johnson and Johnson Professional Inc. and Star Plating Company has prompted other businesses to apply for the award. This exposure was extremely helpful to both the TUR program as well as JJPI and Star Plating. This past year, Star Plating Company requested our assistance in the application process and to review their final document. The award gives business an opportunity to be recognized for their toxic use reduction efforts.

STAR PLATING

Star Plating has maintained a relationship with the BBP since the inception of the TUR/P2 Program. As a result, Star Plating Company contacted the BBP/TUR program to assist them with their toxic use reduction efforts. We toured the operation with OTA to assess their plant operations. In 1988, Star Plating implemented an aggressive environmental program but still wished to improve their efforts. William Roedar, a principal of Star Plating, was instrumental in early discussions conducted by the Commonwealth of Massachusetts during the developmental stages of what is now known as toxic use reduction plans (turps) in Massachusetts. Since then, Star Plating has been an industry leader illustrating to the plating industry the benefits of toxic use reduction. Star Plating's environmental program has led to an understanding and appreciation of sound environmental management that is universal to manufacturing.

Recent initiatives that have been proposed and implemented by Star Plating Company through this updating have included: input substitution, by replacing trichloroethylene with aqueous based cleaner in tin fusing, product reformation developing a non-cyanide "simulated brass" plating which reduced the use of cyanide based brass plating, production unit redesign, consolidation of plating lines

and replacement of liquid cyanide instead of cyanide powder to improve solubility. Custom designed spray rinse technology was developed to reduce water use and wastewater generation. The improved operations and maintenance reduced generation and disposal of metal hydroxide sludge by 75% by minimizing drag out from plating operations, and the effluent was utilized for product rinsing. These improvements exemplify toxic use reduction based upon the concept of TUR planning. In accordance with TURA, Star Plating Company qualified and was awarded for the Governor's Award in 1996. The BBP/TUR then garnered local community support and sponsored a local recognition day. The local presentation ceremony had the following speakers: Frederick M. Kalisz Jr., (toxic use reduction program coordinator), keynote delivery by Dr. Joseph Costa (executive director for the Buzzards Bay Project, speaking for Trudy Coxe Secretary of Environmental Affairs), Steve Hemingway (a representative of Johnson and Johnson Professional) and accepting the award was William Roedar of Star Plating Company. In addition, various other local and state government officials were present. The local presentation ceremony served to bring non-regulatory state offices together with management, employees and business representatives to celebrate in the accomplishments of Star Plating. This recognition day offered media exposure and positive public recognition of Star Plating Company's environmental efforts,

offering very valuable local reinforcement to the economy in taxes, employment and physical positioning in the community. This event was videotaped and replayed on local government access television in New Bedford.

TRAINING SESSIONS/EXHIBITS

The BBP/TUR staff utilized opportunities provided by the EPA, NEWMOA, and OTA, in attending several training sessions throughout this reporting period. One such training session was in preparation for implementing the EPA's *Pit Stop* Program. This session was sponsored by a regional association of vocational educational instructors and an association of auto parts vendors. This presentation unveiled the completed efforts of Massachusetts' OTA and DEP to promote the *Pit Stop* program through secondary education (high school shop classes). An extensive and easily used curriculum was developed and distributed to the vocational-technical schools of the state.

The BBP/TUR staff also attended training sessions sponsored by the Northeast Waste Management Official's Association. These training sessions dealt with innovative pollution prevention measures as well as informational sessions geared towards targeted industries.

The BBP/TUR also participated in a career day at Massachusetts Maritime Academy. "Career Day" educated students about pollution prevention measures and TUR issues and career opportunities in the environmental field. It also offered public visibility of the networking opportunity provided by BBP/TUR as a result of grant initiatives such as the PPIS by EPA in partnership with the Commonwealth's Executive Office of Environmental Affairs. Steve McKenna, program assistant spoke about the TUR program as well as on various other environmental issues.

Economic Development Day at the Joseph Moakley Center at Bridgewater State College provided networking opportunities for new business manufacturing technologies. The teleconference that staff attended was entitled Sustainable Economic Development with the Department of Commerce.

Tufts University- Center for Environmental Management held a seminar on "Managing Now for A Sustainable Future". This lecture addressed technology, policy and health issues in environmental management focusing on strategies for sustainable growth. The lecture also targeted on toxics use reduction at the facility level. The BBP/TUR program utilized the concepts discussed in this lecture.

The Office of Technical Assistance provides a variety of training sessions for different industries. One example was the workshop on electronic environmental

networks. The development of the "internet" and the World Wide Web, has caused an increasing number of environmental resources to adopt this electronic medium. This training session introduced environmental managers to some of the available and useful electronic resources available to them, and how to go about accessing the information. The workshop included a demonstration of the equipment necessary to access this information and the procedures for tapping into various environmental electronic bulletin boards and databases.

The University of Rhode Island's Environmental Symposium provided an opportunity for networking with other area environmental programs working on various pollution prevention initiatives. The BBP/TUR was invited to attend this symposium by the Rhode Island Center for Coastal Resources, whose staff have worked with the BBP/TUR in the past and have participated in our workshops.

WORKSHOPS

Our workshops address specific areas within industry that need TUR information and assistance. Our association with the Massachusetts Office of Technical Assistance (OTA), the Department of Environmental Protection (DEP), the Environmental Protection Agency (EPA), and New Bedford Wastewater

Division has helped us by making available resources for the development and presentation of our workshops. As a result, we have been able to offer specific technical and regulatory information to industries on a broad range of TUR and pollution prevention issues.

The BBP/TUR presented our version of the *EPA's Pit Stop Program*. The focus of the *Pit Stops Program* is to educate autobody shop owners about proper environmental procedures in the workplace. *Pit Stops* also informs shop owners about the environmental impact of their actions as well as possible regulatory actions. The workshop provided automotive specific regulatory information relating to the Clean Air Act, Massachusetts Hazardous Waste Regulations, Ground Water Protection Regulations and Solid Waste Regulations. Participants received a *Pit Stops* booklet containing a wealth of resources information on state and federal regulations and agencies pertaining to automotive industry.

Clean Air Conference For Solvent Degreasers was a teleconference workshop broadcasted from the University of Tennessee for area solvent degreasers. This was an interactive conference in which the viewers could ask questions of the speakers. The teleconference was designed to explain how *Maximum Achievable Control Technology (MACT)* regulations will effect degreasing operations. This was aimed at companies that use the following chemicals; methylene chloride,

trichlorethyne (TCE), 1,1,1, - trichloroethane (TCA), perchloroethylene, chloroform, and carbon tetrachloride. The companies that use these chemicals in processing must comply with the new MACT regulations.

OPTIONS

As of October of 1994 *Options* (our newsletter) was produced on a monthly basis. Through this industry newsletter we are able to educate and broaden our circulation. *Options* topics from April to September included recognition of Star Plating on receiving the Governor's Award. Also highlighted was the Wastecap program detailing how companies can receive information and assistance from other companies that implemented pollution prevention and recycling programs. Included in *Options* were periodic updates on the status of the New Bedford Secondary Treatment Plant. We also informed *Options'* readers about the Massachusetts Toxics Use Reduction Institutes grant matching program.

EENT

The amount of environmental information and resources is increasing on a

daily basis. Information and data which previously could only be found in individual state and federal departments and which required the assistance of department personnel to retrieve can now be accessed directly through the internet in a multitude of electronic resource locations, now called the "Electronic Environmental Network".

Electronic environmental networking has become a priority for the BBP/TUR during the past six months and we committed a great deal of our efforts in developing our own environmental electronic network knowledge and capabilities. Our goal is to continue being an information clearing house to area industries on pollution prevention and toxics use reduction issues. To accomplish this we are providing a local link "site" to these industries.

Many companies do not have the resources or the expertise to take advantage of these resources. Our function is to serve as an information sharing forum for companies involved with pollution prevention and toxics use reduction efforts. We provide a mechanism for these companies to take advantage of information and technical assistance available through this electronic network. The advantage for the companies is that they can communicate with other companies searching for solutions to the many problems encountered in implementing pollution prevention and toxics use reduction efforts. In addition, new sources of technical assistance

can be identified and listings of conferences and training opportunities can be announced.

The electronic network has also been a great asset in researching pertinent information for our monthly newsletter. Changes in regulations, developments in new technologies, new reporting requirements and upcoming training opportunities can be announced through our database of local companies. For the environmental managers who are on the internet, we have compiled information on over fifty different environmental "sites", on issues ranging from regulations, materials exchange information, and financial assessment of P2 projects to mention but just a few. We have had great response from area companies wanting to utilize this type of information assistance and we will continue to promote and develop our electronic network capabilities.

CONCLUSION/FUTURE GOALS

The BBP/TUR has been successful in promoting toxic use reduction as a cost effective measure. We have targeted various industries with a variety of workshops and topics as well as the overall promotion of pollution prevention techniques. We have identified a need for aggressive toxics use reduction efforts by a number of

industries and facilities as they approach the opening of the New Bedford secondary treatment plant and the corresponding lowering of industrial discharge limits. Our future efforts will focus on addressing the needs of these facilities as they seek to find solutions to the TUR challenges and opportunities currently facing them. Through our development of our environmental networking capability we have significantly increased our capability and our resources to educate and assist area industries. We are in the process of compiling a resource directory for business/industry regarding their toxic reduction needs. We are also building relationships with groups not previously targeted for toxic use reduction. We will continue to seek new and creative ways to promote Toxics Use Reduction as an environmentally responsible and economically feasible management strategy.

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Acronyms

BBP/TUR

The Buzzards Bay Project Toxics Use Reduction program was founded under the CCMP of the Buzzards Bay Project. The Toxic Use Reduction Program is devoted to help industrial, institutional and commercial entities reduce the use and discharge of toxic materials to Buzzards Bay and its watershed and further help them to comply with state and local discharge limits and meet toxic use reduction goals under the Commonwealth's Toxic Use Reduction Act.

CCMP

The Buzzards Bay Comprehensive Conservation and Management Plan. This plan outlined the BBP, its conception, and project's goals.

EOEA

The Massachusetts Executive Office of Environmental Affairs. A cabinet level secretariat whose principal authority is to implement and oversee state policies that preserve, protect and regulate natural resources and the environmental integrity of the Commonwealth of Massachusetts.

OTA

The Office of Technical Assistance for Toxic Use Reduction, a non-regulatory state agency. It provides services to business for reducing their toxic use; such as audits, seminars, information, also free training materials and information to plant manager to develop TUR programs at their facilities.

DEP

The Department of Environmental Protection. The DEP administers most of the Commonwealth's environmental regulatory programs. These programs address a variety of concerns including air and water quality, solid and hazardous waste disposal, and development of wetlands and waterways.

BBP

The Buzzards Bay Project is one of the first estuary programs in the country. It was

initiated in 1985 under the joint management of EPA and the Massachusetts EOE. From the beginning the project had a threefold objective: 1) to set up a management structure to coordinate project activities and help achieve long term goals; 2) to identify and research the priority water quality problems in Buzzards Bay; 3) based upon these findings, to develop a management plan for the protection of the Bay's water quality and valuable resources.

TUR

Toxics Use Reduction. This term refers to the elimination or reduction of toxics released into the environment or reduced or eliminated from processes.

IPP

Industrial Pre-Treatment Program is responsible for establishing and enforcing rules and regulations for industries discharging into the POTW.

POTW

Publically Owned Treatment Works.

P²

Pollution Prevention. Anything relating to reducing, eliminating, or preventing pollution. Such as education, pretreatment, toxics use reduction, and scientific measures.

RACT

Reasonably Available Control Technology. RACT regulations are of the primary methods of controlling the release of volatile organic compounds into the atmosphere.

VOC

Volatile Organic Compounds are toxins that are released into the atmosphere and considerably lower air quality. These emissions are regulated by the DEP under Title 5 air emission regulations (310 CMR 7.18).

Be²st

Business Economically and Environmentally Sustainable for Tomorrow. This concept created by the BBP/TUR program is intended to serve as a symbol in the New Bedford Area as a commitment to economic and environmentally sustainable business practices.

TURA

The Toxics Use Reduction Act of 1989. Massachusetts signed into law the act as a measure to reduce the amounts of toxics released into the environment. The act provided

threshold limits, set up user fees, created the Office of Technical Assistance for Toxic Use Reduction as well as the Toxics Use Reduction Institute.

TURP

Toxic Use Reduction Plan. Industrial and commercial businesses are required to implement and created a toxics use reduction plan. This plan is required by The TURA 1989 to reduce toxics used in processing.

UMASS/SMMP

University of Massachusetts at Dartmouth, Southeastern Massachusetts Manufacturing Partnership is a regional development agency servicing the communities of Attleboro, Brockton, Fall River, New Bedford and Taunton.

NEWMOA

Northeast Waste Management Official's Association is a nonprofit interstate association whose membership is composed of the hazardous and solid waste, pollution prevention, and waste site cleanup program directors for state environmental agencies in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont.

MOBD

The Massachusetts Office of Business Development - Southeastern Region, assists Massachusetts's Businesses in creating and maintaining jobs and works to attract new businesses and to facilitate business relocation to or expansion in the state.

PPIS

The Pollution Prevention Incentives for States. This grant program was conceived to provide seed money to the states to establish pollution prevention programs. This is the grant program that provided funding for the Toxic Use Reduction program of the BBP.