

US EPA ARCHIVE DOCUMENT



ANHEUSER-BUSCH COMPANIES

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July 27, 1995

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Regulatory Reinvention Pilot Projects, FRL-5197-9
Water Docket
Mail Code 4101
US EPA
401 M Street, S.W.
Washington, D.C. 20460

Dear Sir/Madam:

In response to the May 23, 1995 Federal Register notice regarding Project XL, Anheuser-Busch is pleased to submit our Project XL proposal based on our brewery operations located in Jacksonville, Florida. In addition to the proposal, we have included five copies of the following support material:

- Anheuser-Busch Companies' Fact Book
- Anheuser-Busch Companies' Pledge and Promise Brochure
- Anheuser-Busch Companies' Commitment to Environmental Excellence Policy

On July 18 Anheuser-Busch personnel presented our Project XL Proposal to EPA personnel including Steve Harper, Maryann Froehlich, Jon Kessler, etc. Based on this meeting, we were encouraged to expedite our project submittal in order to be considered as one of EPA's original six Project XL pilots.

Anheuser-Busch has interest in developing new policies that will allow us to better balance our business interest with our Commitment to Environmental Excellence. Anheuser-Busch can play a significant leadership role in encouraging change from our position of being a leading consumer products company in the food, beverage, and entertainment sectors.

JACKSONVILLE ELECTRIC AUTHORITY

21 WEST CHURCH STREET • JACKSONVILLE, FL 32202-3139



July 25, 1995

Regulatory Reinvention Pilot Projects
FRL-5197-9
Water Docket
Mall Code 4101
US EPA
401 M Street, S.W.
Washington, DC 20460

Re: Anheuser-Busch's Project XL Proposal

Dear Sir/Madam:

Mr. Larry Keith, Director of Environmental Engineering for Anheuser-Busch, Mr. John Wilchek, Anheuser-Busch brewery Plant Manager in Jacksonville, and Mr. Brad Fausnacht, Environmental Engineer at the Jacksonville brewery, met with representatives of the Jacksonville Electric Authority (JEA) on Tuesday, July 25, 1995, to discuss details of their draft Project XL proposal to US EPA. Based on our discussion, it is our understanding that the two key elements to the Project XL proposal are:

- 1) the expanded bubble approach to ensure decisions are made considering overall multi-media impact in the community, and
- 2) the utilization of an Environmental Management System (EMS) to provide regulators and Anheuser-Busch a better means of ensuring on-going compliance.

The JEA supports the Anheuser-Busch Project XL proposal and looks forward to seeing the results of this pilot.

Sincerely,

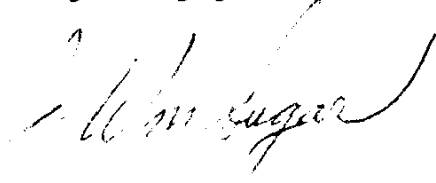
A handwritten signature in black ink, appearing to read 'Richard Breitmoser', with a long horizontal line extending to the right.

Richard Breitmoser, P.E.
Director
Environmental Health & Safety

Anheuser-Busch is enthusiastic about the potential of this proposed Project XL pilot and we look forward to a favorable response from EPA. If selected as one of the original pilots, we are prepared to negotiate a detailed agreement with EPA as quickly as possible, with the goal of initiating the pilot in the fourth quarter of this year.

Thank you for this opportunity.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. William Sugar". The signature is fluid and cursive, written over a light blue horizontal line.

**J. William Sugar
Senior Director
Corporate Environmental Affairs**

**JWS:pm
Attachment**

**cc: J. Kessler (EPA)
L. W. Keith
J. L. Migliozzi
D. E. Pusch**

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ANHEUSER-BUSCH COMPANIES, INC.
PROJECT XL PROPOSAL
July 20, 1995

1.0 BACKGROUND

Anheuser-Busch is a highly diversified company both in the products and services it offers and sells and in its environmental efforts.

We are primarily known for the fine quality beers we brew -- 88 million barrels in 1994, the world's largest brewing organization. However, we are not just a brewing company. Anheuser-Busch processes grains used as raw material for beer, manufactures cans and operates the largest aluminum can recycling network in the world. Anheuser-Busch has a baking subsidiary that produces more than two million pounds of baked goods a year, is the second largest maker of salted snack foods and is the operator of 10 family entertainment parks. Sales last year were \$14 billion.

Our Chairman, August A. Busch III said several years ago -- "Our environmental philosophy is based on the belief that the world we all share is only given to us in trust. Every choice we make regarding the earth, air and water around us is made with the objective of preserving it for all generations to come. That is how our stewardship will be judged, and that is our commitment." Preserving resources that will be needed in the future is vital to our staying in business. Because of the size of our company, even steps that seem small are carried out on a large scale. This can be good for business as well as the environment. While Anheuser-Busch has much to be proud of regarding our environmental accomplishments, we are always in search of opportunities for continuous improvement. Over the past few years Anheuser-Busch has been deploying an Environmental Management System. This system is stimulating management participation at all levels along with employee empowerment which results in continuous improvement towards our goal of achieving environmental excellence.

2.0 PROJECT VISION

Use Anheuser-Busch's Environmental Management System (EMS), as shown in Appendix A, to more cost effectively achieve sustainable multi-media environmental performance superior to current single media command and control regulations. The pilot will demonstrate the value of setting goals and how industry, given sufficient time, can develop innovative solutions across an expanded bubble that focuses on improved multi-media environmental performance that is fundamentally more cost-effective from both a capital and operating cost perspective than prescriptive single media end-of-the-pipe solutions.

EMS will demonstrate a practical methodology for companies across multiple industry sectors to implement the new ISO 14000 Environmental Management Standard that is projected to become final in 1996. Anheuser-Busch has been developing and is now deploying a state-of-the-art Environmental Quality Manual (EQM) database that ties strategic management at the corporate level to daily management at the subsidiary and facility level. EQM's will be the methodology to practically integrate ISO 14000 into the corporate, subsidiary and facility operations to achieve breakthroughs and continuous improvements into the twenty first century.

The success of this pilot project will generate support for a new proactive direction in the way environmental compliance is achieved and business needs are met.

Pilot objectives:

- Shift to a proactive, multi-media expanded agreement from the current reactive, single media permits. Reduce the time required to process new or modified permits and provide flexibility in obtaining new permits.
- Demonstrate the effectiveness of emission trading and banking in ensuring continuous environmental improvement that can frequently occur earlier than with current regulatory system.
- Reduce capital and operational cost while achieving continuous environmental improvement.
- Demonstrate that the implementation of an EMS encourages improved compliance and environmental management, which results in reduced paperwork, manpower and cost.
- Test and evaluate the implementation of ISO 14000 standards through EMS.

3.0 PROBLEM STATEMENT

Today both industry and regulators approach environmental compliance from a reactive mode. Regulators use a single media command and control philosophy to achieve environmental compliance. Some industries merely react to environmental regulations and do the minimum to demonstrate compliance, often at significant cost compared to the benefit achieved. There are no systems in place or flexibility provided to give regulators a means of better determining on-going compliance or to allow/provide incentives to encourage industry to operate in a manner that minimizes environmental impact in the community. Audit programs, however helpful to industry in “catching issues before the regulator does”, remain reactive programs. In short, there is no good mechanism to encourage both regulators and industry to move from the reactive to proactive way of doing environmental business.

Specific problems include:

- Current command and control regulatory system results in inability to achieve environmental goals without significant growth in resources.
- No system exists to allow industry to trade emissions between media when there would be a net environmental benefit for business and the environment.
- Industry and regulators do not have systems in place to measure on-going compliance and EMS implementation other than an internal audit and inspection program.
- Industry and regulators have historically produced voluminous paper work and have lacked efficiency in compiling, reporting and evaluating data and programs.
- Few studies, if any, have been completed on the implementation of ISO 14000 standards that are scheduled to be final in 1996.

4.0 PROPOSAL

Utilizing Anheuser-Busch's Jacksonville, Florida brewery, convert from the existing single media permits to one multi-media agreement. Expand the boundary of the agreement to account for emissions from the Jacksonville water plant, Jacksonville Electric Authority(JEA), power plant, and from the wastewater treatment facilities (brewery anaerobic pretreatment followed by either land application or discharge to City's WWTP) attributable to brewery operations. This will allow for a more representative determination of the environmental impact of the brewery in the community and will provide industry the incentive to ensure business decisions consider overall community environmental impact, not just what is required to comply with a single media environmental permit. This approach will require:

- Select up to three projects/process changes to demonstrate the multi-media concept.
- Initial development of the multi-media baseline agreement by Florida DEP and to include baseline emissions and criteria for emission trading and banking Anheuser-Busch.
- Quarterly reporting of actual emissions electronically to Florida DEP.
- Initial development of self-assessment criteria to use during the pilot.
- Initial development of mechanism to modify baseline emissions and emissions trading factors.

In conjunction, develop and implement an EMS at the brewery. The system will encompass compliance issues, best management practices, ISO 14000 standards, a vehicle to capture new/changed regulations, a methodology that evaluates the impact of facility expansions and process changes, and a self-assessment tool to evaluate and measure EMS implementation. The primary vehicle will be an electronic database, referred to as the Environmental Quality Manual (EQM). Self-assessments will be conducted quarterly by brewery personnel and available for agency review (modeled after EPA/state agency inspection protocols). It is worthy to note that this tool is essentially developed, with only modifications needed to adapt the EQM to be comparable to agency regulatory inspection protocols. Agencies and brewery personnel would then conduct co-inspection(s) to test and evaluate the system.

The proposed system will allow the facility to take a more proactive, multimedia approach, rather than the reactive single media focus it has operated under to date. The need for regulator inspection "checks" would be reduced and a higher level of confidence could be realized by both the facility and agencies involved. This would ultimately result in less agency manpower needed, less paperwork and a move toward proactivity. Issues will also be identified related to ISO 14000 implementation.

5.0 METRICS (PROJECT XL CRITERIA) TO MEASURE PERFORMANCE

5.1 ENVIRONMENTAL RESULTS

Expanded Bubble Approach

The first area of environmental results involves the actual impact of the brewery on total community emissions. Expanding the bubble to include emissions from ancillary facilities (City water treatment plant, Jacksonville Electric Authority (JEA) power plant, and wastewater treatment facilities) attributable to brewery operations will provide industry the flexibility to optimize a solution that is good for business and the environment. Please note that data contained in Appendices B and C is based on a rough model that will require refining and is presented to demonstrate the bubble concept.

Appendix B, entitled “Air Emissions at Full Production Prior to Innovative WWT Technologies”, shows the impact of the brewery on total community air emissions based on all brewery effluent treated by conventional activated sludge aerobic treatment. Though the only regulatory limits imposed on Anheuser-Busch are through air permits for brewery operations, less than one-third of the total air emissions impact of the brewery in the community actually comes from brewery emissions. A significant portion of the air impact comes from emissions from the Jacksonville Electric Authority (JEA) power plant to provide electricity to the brewery, the City water plant to treat water for the brewery and to the mechanical wastewater treatment plant to treat brewery wastewater.

Appendix C, entitled “Air Emissions at Full Production with Existing BERS/Land App”, shows community air emissions, based on the existing wastewater treatment scheme in Jacksonville (anaerobic pre-treatment (BERS) of all process wastewater with approximately two-thirds of pretreated effluent going to land application and one-third going to the City’s WWTP for final treatment). When comparing total community emissions with mechanical treatment (Appendix B) to emissions with the existing method of wastewater treatment, total community emissions are reduced by approximately 50%, while brewery emissions alone are only minimally impacted.

Environmental results will be improved by expanding the bubble, establishing baseline emissions and a banking and trading system that encourage industry to minimize total community emissions. Today, it is often more expedient to install end-of-the-pipe energy intensive treatment systems to comply with a new regulation that will result in increased air emissions (no impact on brewery’s air permit) from the Community Power Plant than it is to accomplish reductions through pollution prevention and resource conservation.

EMS

The EQM will also facilitate a multimedia approach to compliance and overall impact of the brewery on the community. "Cleaner results" could be achieved by routinely evaluating overall media/environmental status of the brewery rather than focusing on specific compliance-related problem areas through agency inspections and the internal A-B audit program. On-going compliance and EMS implementation can be monitored by the facility through quarterly self-assessments, resulting in improved overall compliance and systematic evaluation of environmental systems at the facility. The EQM also provides customized guidance on compliance related issues and incorporates mechanisms to evaluate innovative ways to evaluate plant expansions and process changes and identify pollution prevention opportunities on a regular basis.

5.2 COST SAVINGS AND PAPERWORK REDUCTIONS

The expanded bubble multi-media concept will allow industry to expand its options to achieve improved community environmental impacts while also making the best business decision. This is demonstrated by the "Life Cycle" analysis approach that Anheuser-Busch completed on wastewater treatment technologies. From a multi-media environmental standpoint, as well as from a cost standpoint, the ranking of technologies from best to worst is:

**Cost Comparison of
Wastewater Treatment Alternatives**

	Multi-Media Environmental Impact	Capital Cost \$/lb BOD/d	O&M \$/lb BOD
Land Application	Lowest	400	0.13
Anaerobic/Aerobic	Low	450	0.23
Aerobic	High	1,300	0.40

As mentioned previously, the change from aerobic treatment to the existing treatment scheme in Jacksonville reduced community air emissions by approximately 50%, while having only minimal impact on permitted air emissions from the brewery. The existing treatment scheme in Jacksonville also results in a lower capital and annual operational cost than the aerobic treatment system utilized in the past. This is a win for business and the environment.

All proposed EMS tools are electronic and the pilot would include routine submission of self-assessment data, compliance data (air and wastewater) and pilot results electronically. The need for regulator inspections would be reduced by the completion and submission of self-assessments on a quarterly basis. This would be a significant reduction in paperwork and manpower for both the brewery and regulatory agencies involved.

5.3 STAKEHOLDER SUPPORT

Moving from multiple single media permits for the brewery to an expanded multi-media agreement will help assure decisions are made considering business needs and total community environmental impact and will have strong stakeholder support by regulators, the community and public interest/environmental groups. The pilot will also demonstrate to stakeholders that the multi-media trading system is the best way to achieve environmental goals at the lowest cost to industry.

Attached in Appendix D are letters from the State of Florida Department of Environmental Protection, Jacksonville Electric Authority, and the Jacksonville Regulatory Environmental Services Division, giving their tentative endorsement and support for the proposed Project XL pilot. We will be providing documentation of the support of additional stakeholders.

5.4 INNOVATION/MULTI-MEDIA POLLUTION PREVENTION

Expanding the bubble encourages industry to be proactive in testing alternatives to achieve environmental results. For example, several breweries have been required to install low NO_x burners on their boilers to achieve required NO_x reductions. With an expanded bubble, many alternatives to low NO_x burners may accomplish the same or better NO_x reductions, while accomplishing additional environmental benefits and proving to be good business decisions. Again, data contained in the following table is based on a rough model that will require refining and is presented to only to demonstrate the bubble concept.

Alternatives to Attain NOx Reductions

Alternative	Jacksonville Brewery Emissions Reduction (M lb/yr)				JEA Emissions Reduction (M lb/yr)			
	NO _x	CO	CO ₂	SO ₂	NO _x	CO	CO ₂	SO ₂
Low Nox Burner	62	0	0	0	0	0	0	0
Anaerobic WWT to Present Scheme	0	0	0	0	283	15	119,000	390
Aerobic WWT with 20% BOD Reduction	0	0	0	0	71	4	30,000	116

Converting from aerobic treatment to the present treatment scheme and continuing with aerobic treatment but reducing brewery BOD emissions by 20% both accomplish greater community NO_x reductions than low NO_x burners, while also reducing associated community CO, CO₂ and SO₂ discharges. Under existing regulatory guidelines, alternatives that reduce community emissions but not brewery emissions would not be acceptable.

The expanded bubble concept also encourages pollution prevention and resource conservation. For example, higher emission reductions may be achieved by reducing BOD through reducing process loss as opposed to controlling emissions at the discharge point. Taking the pollution prevention approach often results in lower raw material and utility usage, which results in cost savings and environmental emission reductions.

This project will encourage innovative strategies for achieving environmental goals both from a technology and management systems standpoint. Air and wastewater regulatory requirements would be tested to demonstrate the expanded bubble approach and several environmental media would be tested piloting the implementation of the EQM including ISO 14000 standards. The EQM will enable/empower the facility to routinely evaluate means to improve operations, processes and technology to reduce environmental impacts and consider pollution prevention/resource conservation over pollution control where feasible.

5.5 TRANSFERABILITY

The expanded bubble multi-media concept, coupled with the proposed EQM/self assessment system could be transferred and utilized by most industries. The EQM model and information resulting from the pilot will be valuable to both industry and regulators.

5.6 FEASIBILITY

The proposal is feasible both technically and administratively. Agencies involved in the pilot would be required to assist in the self-assessment development. AB will assist the agencies involved in obtaining and implementing the equipment and software necessary for the pilot.

5.7 MONITORING, REPORTING AND EVALUATION

Emission data compared with negotiated baseline emissions will be transmitted to the appropriate agency routinely, along with quarterly self-assessment data. This data will be available for both the regulator and public. Information about the project, including performance data and self assessment data, will be available to stakeholders in summary form that is easily understandable. Self-assessment data will be available and performed routinely during the pilot period. Self-assessment results will be compared to agency inspection results to determine the success of the EMS.

In addition, as a leader in the consumer products industry, Anheuser-Busch will work with EPA to explore innovative methods for communicating the project's success to stakeholders. We would propose to work with EPA to define the appropriate alternatives during the development of the agreement.

Enforcement criteria will be established with the appropriate regulators prior to initiating Project XL. The self-assessment could be an alternative approach to addressing enforcement issues. In lieu of enforcement action, quarterly facility self-assessments submitted could identify deviations from baseline emissions and other non-compliance issues and include a corrective action plan.

5.8 SHIFTING RISK BURDEN

Establishing the expanded bubble multi-media approach, with established baseline emissions will encourage decisions that ensure minimization of environmental impacts and will deter the shifting of environmental emissions from one media to another or from one location to another.

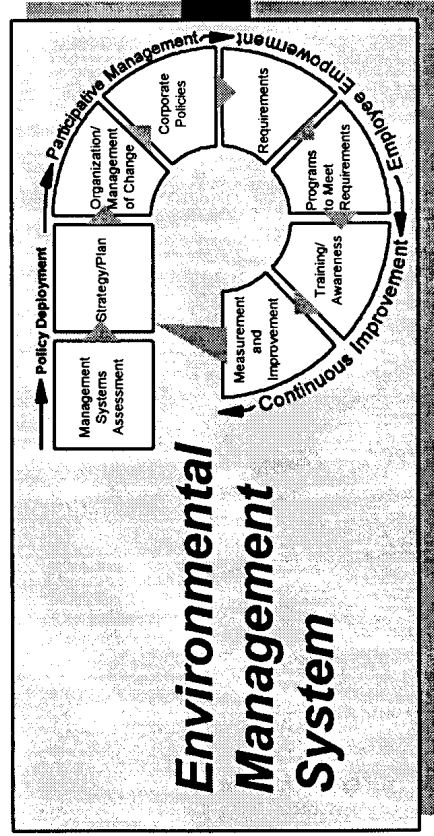
APPENDIX A

Anheuser-Busch's Environmental Management System

Anheuser - Busch Companies' Commitment to Environmental Excellence

A-BC's Mission Statement
"Respect for the Environment"

Commitment to Environmental Excellence Policy
"Environmental responsibility is good corporate citizenship; it's also good business."
 August A. Busch III



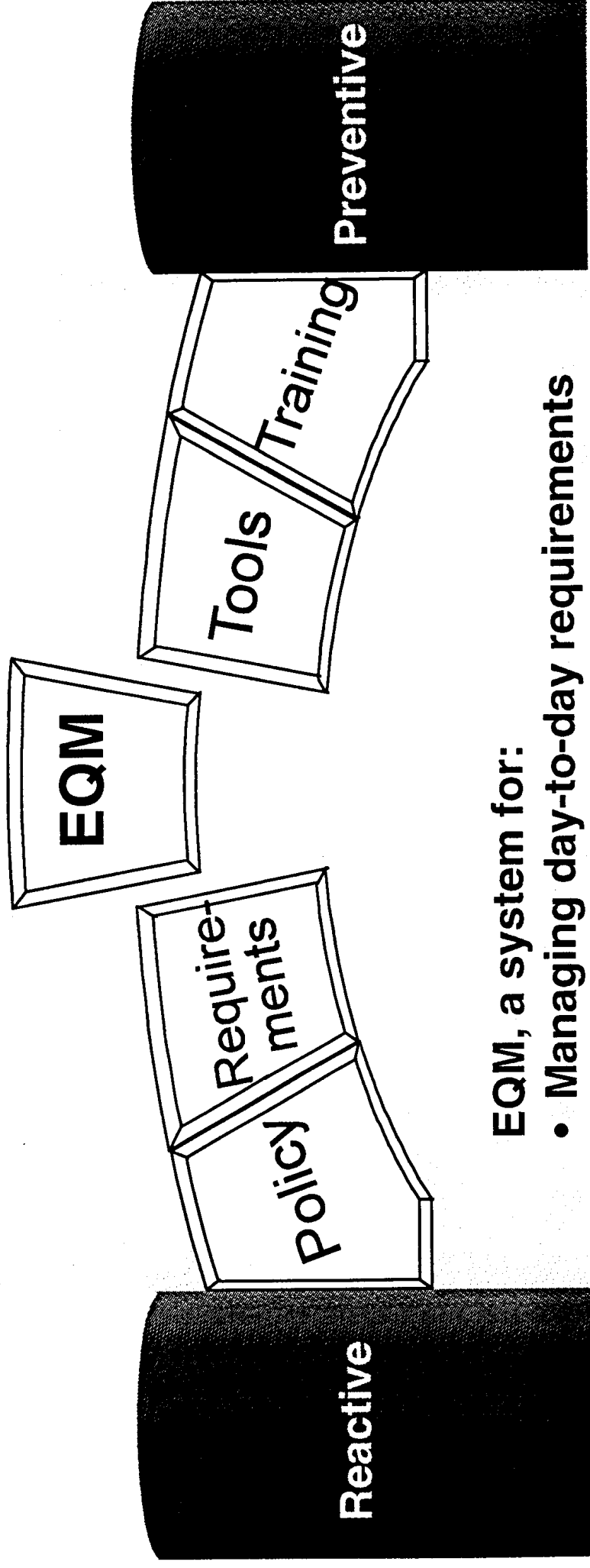
Integrating environmental requirements into company operations as a way of life

Ensure compliance

Reduce cost

Enhance environmental image

Environmental Quality Manual is the key to connecting strategic and daily management and establishing facility management systems



EQM, a system for:

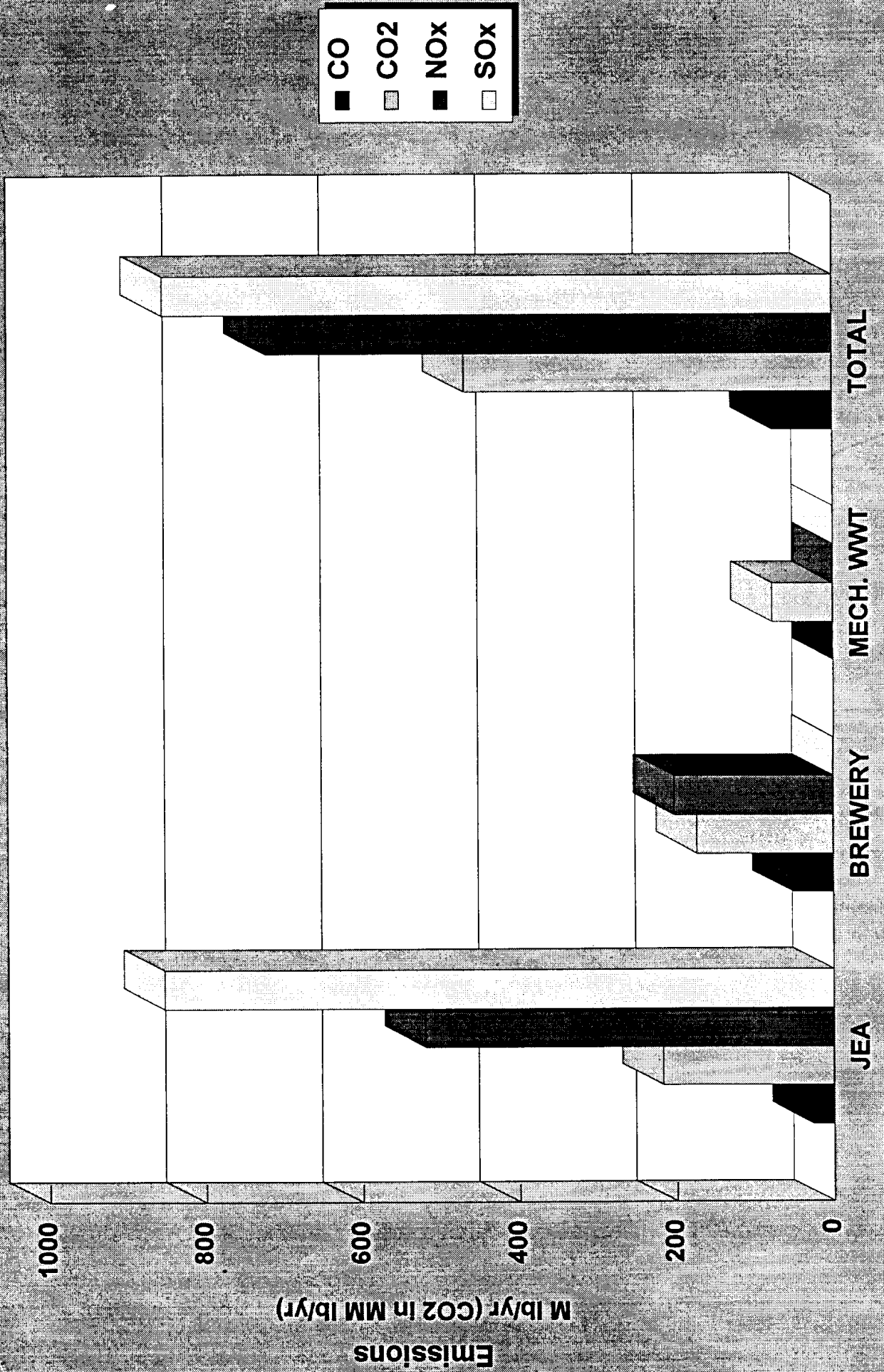
- **Managing day-to-day requirements**
- **Scheduling future activities**
- **Training support**
- **Tracking audits and audit findings**
- **Self assessments**

APPENDIX B

Air Emissions at Jacksonville Brewery at Full Production Prior to Innovative Wastewater Treatment

JACKSONVILLE BREWERY

AIR EMISSIONS AT FULL PRODUCTION PRIOR TO INNOVATIVE WWT TECHNOLOGIES

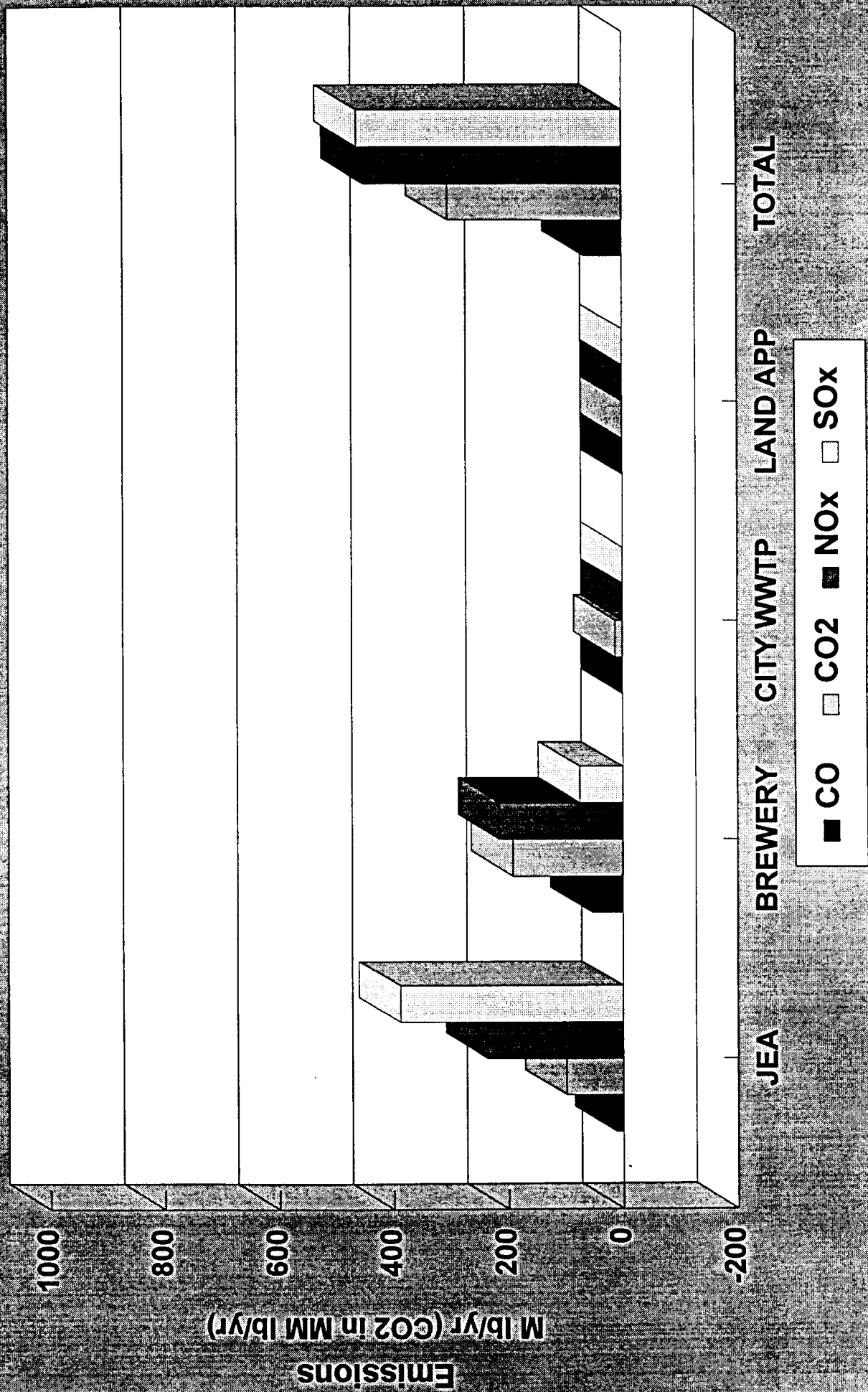


APPENDIX C

Air Emissions at Jacksonville Brewery at Full Production with Existing BERS/Land Application Wastewater Treatment System

JACKSONVILLE BREWERY

AIR EMISSIONS AT FULL PRODUCTION WITH EXISTING BERS/LAND APP



APPENDIX D

Stakeholder Support Letters



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

July 25, 1995

Mr. Larry Keith, Director
Environmental Engineering
Anheuser-Busch Companies, Inc.
Executive Offices
One Busch Place
St. Louis, Missouri 63118-1852

RE: Anheuser-Busch's Project XL Proposal

Dear Mr. Keith:

This will confirm that representatives of the State of Florida Department of Environmental Protection (FDEP), Northeast District, met with you, Mr. John Wilchek, Anheuser-Busch brewery Plant Manager in Jacksonville, and Mr. Brad Fausnacht, Environmental Engineer at the Jacksonville brewery, to discuss your draft Project XL proposal to US EPA. The two basic concepts presented were expanding the bubble to provide both regulators and industry a mechanism to ensure business decisions consider multimedia environmental impacts in the community, and Anheuser-Busch implementing an Environmental Management System (EMS) to provide both regulators and industry an improved method of ensuring on-going facility environmental compliance.

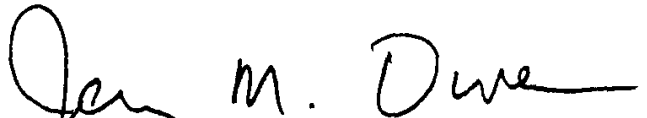
The concept proposed to us during the meeting appears to be something that we could support. However, due to the short turn around time in which you requested a response from us, we have not reviewed the draft proposal in great detail. We would look forward to receiving the final proposal after approval by EPA so that we, along with appropriate personnel from our Tallahassee office, can review the project in detail.

All parties realize final approval prior to actually initiating the pilot project is contingent on FDEP working with Anheuser-Busch to establish agreed upon multimedia baseline emissions and compliance assurance mechanisms to be utilized during the Project XL pilot that are acceptable to all parties. FDEP is willing to participate with Anheuser-Busch in this endeavor.

Mr. Larry Keith
July 25, 1995
Page Two

If there are any questions concerning FDEP's support of this proposal, please contact me 904/448-4330, Extension 301.

Sincerely,

A handwritten signature in black ink, appearing to read "Jerry M. Owen". The signature is fluid and cursive, with a large initial "J" and "O".

Jerry M. Owen, P.E.
Water Facilities Administrator

JO:dr
cc: Mr. John Wilchek

**REGULATORY & ENVIRONMENTAL
SERVICES DEPARTMENT**
Office Of The Director



July 25, 1995

Regulatory Reinvention Pilot Projects,
FRL-5197-9
Water Docket
Mail Code 4101
US EPA
401 M Street, Southwest
Washington, D.C. 20460

RE: Anheuser-Busch's Project XL Proposal

Dear Sir/Madam:

This date, Tuesday, July 25, 1995, Anheuser-Busch representatives presented details of their draft Project XL proposal to the City of Jacksonville's Regulatory and Environmental Services Department (RESD).

Mr. Larry Keith, Director of Environmental Engineering for Anheuser-Busch, Mr. John Wilchek, Anheuser-Busch Brewery Plant Manager in Jacksonville, and Mr. Brad Fausnacht, Environmental Engineer at the Jacksonville Brewery, discussed the two basic concepts of the Project XL proposal. The first concept was to expand the brewery emission bubble to ensure Anheuser-Busch considers overall multi-media environmental impacts in the community in its decision making. The second concept was for Anheuser-Busch to implement an Environmental Management System (EMS) at the Jacksonville brewery to give regulators and Anheuser-Busch a better method of ensuring on-going environmental compliance.

The Jacksonville RESD supports the Anheuser-Busch Project XL proposal and will work with them as required during the Project XL pilot.

Sincerely,

A handwritten signature in black ink that reads "John M. Shellhorn".

John M. Shellhorn
Acting Director

JMS/bsp

