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August 20, 2008

Via Electronic Mail and U.S. Mail

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Attention: David Walls, Executive Director

Re: Notice of Post Hearing Modifications to Proposed Building Standards
Modifications for PEX Tubing

Dear Mr. Walls:

On behalf of the Plastic Pipe and Fittings Association (PPFA), this office submits the following comments on the recent proposed amendments to the Express Terms for Proposed Building Standards of the California Building Standards Commission (CBSC) related to PEX tubing, dated July 11, 2008. The amendments were proposed to address mitigation measures identified in the draft CEQA document regarding the use of PEX. Since publication of the Draft Environmental Impact Report (EIR), the State has received new information, and voluntary standards changes have occurred that directly address concerns identified in the EIR and render several of the proposed revisions unnecessary.

I. Proposed Amendment to Chapter 6, Water Supply & Distribution, Table 6-4, Footnote 3

The proposed addition of footnote 3 to Table 6-4 (Chapter 6, Water Supply & Distribution) is apparently based on the Draft EIR's mitigation measure requiring compliance with NSF P171-CL-R. In PPFA's comments on the Draft EIR,[1] we explained why that mitigation measure was not needed to avoid environmental impacts. We further raised concerns about the policy and precedential implications of adopting as a regulatory requirement a non-consensus based test protocol, such as P171-CL-R. Recent amendments by ASTM to its well established consensus standard ASTM F876 provide

[1] See June 23, 2008 letter from Kelley M. Taber to Valerie Namba, previously provided to the CBSC and incorporated by reference herein.

the State with the opportunity to address the continuous recirculation issue through a consensus standard rather than a less broadly approved approach.

ASTM recently has approved adding a Continuous Recirculation Requirement to ASTM F876 so that PEX tubing may be tested and listed for 100% hot water recirculation at 140 degrees Fahrenheit. Now approved, this change to ASTM F876 will be officially published within a few months, at which time NSF has indicated that all listings to the NSF P171 protocol will be converted to the ASTM F876 listing and NSF will no longer offer certification of PEX tubing to the P171 protocol.

Currently, the California Plumbing Code requires compliance with ASTM F876 for PEX used in potable water applications through adoption in Table 14-1. The recent changes to ASTM F876 would require PEX used in continuous recirculation systems to be tested and listed for compliance with the continuous recirculation application and marked accordingly. Therefore, it is not necessary to have a separate code requirement for this application.

II. Proposed Amendments to Section 604.1

When the Draft EIR was released, the State lacked complete data to resolve questions in the draft regarding whether PEX released certain drinking water constituents above California regulatory levels. Data and information that became available after publication of the Draft EIR resolve those questions and demonstrate that PEX will not release chemicals, including Proposition 65 listed chemicals, at levels that violate drinking water standards. Because information developed in the EIR process has demonstrated that PEX has no adverse impact to the environment or human health, no EIR mitigation and no Code revisions related to drinking water quality are necessary.

The Draft EIR provided that over-time testing would be recognized to demonstrate that PEX would not release harmful levels of drinking water constituents. After publication of the Draft EIR, NSF completed independent long-term over-time tests for MTBE and t-butanol. These test results have been provided to the State. (See August 6, 2008 correspondence from NSF to PPFA, attached.) The results confirm the initial test and extrapolation data presented in the Draft EIR and demonstrate that levels of MTBE and t-butanol released from PEX swiftly decline to below any levels of concern for human health. Additional rationale and evidence supporting a determination that any release of MTBE or t-butanol from PEX does not require any mitigation, is set forth in the June 23, 2008 comments of PPFA and NSF on the Draft EIR.[2]

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[2] See June 23, 2008 letter from Kelley M. Taber to Valerie Namba, DGS, incorporated by reference herein.

Although the recent NSF analysis indicates that t-butanol levels released from two PEX samples may take somewhat longer to reach the State's notification level than others, it is important to note that after just two months the levels for even those samples—55 and 41 parts per billion (ppb), respectively—are *far, far below* the peer-reviewed levels determined by NSF to be protective of human health, which range from 900 to 40,000 ppb. In fact, at no point does any PEX sample ever exceed, or even come close to, those peer-reviewed health standards. The data suggests that these levels will continue to decline, further obviating any reason for concern.

As we noted in our comments on the Draft EIR,[3] and supported by the comments of NSF on the Draft EIR,[4] it is not necessary or appropriate (in order to protect human health) to meet the State's notification level, which does not meet the criteria for treatment as a regulatory standard and is substantially below the NSF detection limit. Further, the NSF letter confirms that the State's level was not based on appropriate science, and thus compliance with the peer-reviewed NSF levels should be the relevant criterion for assessing potential impacts.

The EIR process also demonstrated that there is no potential for PEX to release Proposition 65 constituents above adopted Public Health Goals (PHGs) or Maximum Contaminant Levels (MCLs), and that PEX will not release any other constituents on the State's Proposition 65 list for which no PHGs or MCLs have been adopted.[5] Because the data demonstrates no significant impact would occur, the mitigation measures identified in the Draft EIR that apparently are the basis for the revisions to section 604.1 (mitigation measures 4.4-1, 4.4-2, and 5-1) are not needed or appropriate, nor are the revisions to section 604.1.

Not only is product-specific regulation unnecessary, but also it is fundamentally unfair and misleading to require that only one product demonstrate compliance with broad-based regulations such as drinking water standards and Proposition 65 when regulated chemicals could be present in *any* code authorized piping material. Health-based code provisions, such as the lead requirements currently in the code, typically apply to *all* materials in the code; imposing product-specific compliance requirements

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[3] See pages 7-9 of June 23, 2008 letter from Kelley M. Taber to Valerie Namba.

[4] See page 4 of June 23, 2008 letter from Lori Besterveldt, Ph.D., to Valerie Namba, incorporated by reference herein.

[5] See EIR-related correspondence, including June 23, 2008 letter from Lori Besterveldt, Ph.D., NSF, to Valerie Namba, DGS, and July 8, 2008 letter from Kelley M. Taber to Valerie Namba, DGS, incorporated by reference herein.

where there is no demonstrated need would create significant inconsistencies in the code and create confusion among the many different parties who rely on the code for guidance.

PPFA appreciates the effort the CBSC has made to thoroughly evaluate the use of PEX. The EIR process has proved that heightened regulation for PEX is not necessary. PPFA thus respectfully requests that the CBSC reject the most recent proposed amendments to section 604.1 and authorize the use of PEX without currently proposed footnote 3 to Table 6-4.

The record demonstrates that PEX saves money and has substantial environmental benefits when compared to other plumbing products (especially savings of energy and water, both of which are critical in California). Because full approval of PEX will provide an environmentally beneficial and cost-effective choice for California consumers, it is in the State's interest to promptly authorize its use without unneeded, product-specific regulation.

Very truly yours,

SOMACH SIMMONS & DUNN

Kelley M. Taber

Kelley M. Taber

Enclosure
KMT:mb

August 6, 2008

Plastic Pipe and Fittings Association
800 Roosevelt Road
Building C, Suite 312
Glen Ellyn, Illinois 60137

RE: Testing of Cross-linked Polyethylene Tubing to NSF/ANSI Standard 61
LAB REPORT #'s: J-00056621, J-00056620, J-00057146, J-00057147, J-00057148, J-00057149, J-00057150, J-00057151, J-00057152 and J-00057153

To whom it may concern,

NSF International has completed the testing and has summarized the test results for ten samples of Cross-linked Polyethylene Tubing to evaluate the long term extraction of t-butanol and methyl t-butyl ether (MTBE). To determine the long term extraction of these contaminants samples of cross-linked polyethylene tubing were conditioned for 16 days prior to the critical water collection on day 17. For these overtime exposures the water was also collected and analyzed on days 1, 2, 3, 8, 10, 21, 36, 49, 78 and 107. Analyzing water samples from days throughout the exposure was necessary to perform a regression analysis. The purpose of this review is to determine the point at which the t-butanol and MTBE extraction result would be lower than 13 and 12 ppb respectively.

Table 1 summarizes the normalized results for t-butanol and MTBE for Day 107. All samples tested for MTBE had normalized levels below 12 ppb by day 107. Of the samples tested for t-butanol, two of ten were below 13 ppb after the 107 day exposure.

Table 1. Day 107 normalized results for t-butanol and MTBE.

Sample	t-butanol (ppb)	MTBE (ppb)
Sample 1 - J-00056620	15	5.4
Sample 2 - J-00056621	†ND (10)	7.3
Sample 3 - J-00057146	21	†ND (0.3)
Sample 4 - J-00057147	55	†ND (0.3)
Sample 5 - J-00057148	21	8.8
Sample 6 - J-00057149	62	11
Sample 7 - J-00057150	34	0.47
Sample 8 - J-00057151	41	†ND (0.3)
Sample 9 - J-00057152	62	†ND (0.3)
Sample 10 - J-00057153	†ND (10)	†ND (0.3)

† Non-Detectable.

Even though all MTBE samples were below 12 ppb by day 107 regression analyses were performed to determine which decay model (power or exponential) best predicts day 107 extraction results. In 9 of the 10 samples, the power model demonstrated the best fit based upon the highest coefficient of determination (r^2 value). Graphical results of the t-butanol and MTBE regression analyses can be found in Appendix A.

For the t-butanol samples that exceeded 13 ppb on day 107, the levels were extrapolated to determine the day when that level would be below 13 ppb based upon the model that was selected for the regression. Table 2 summarizes the results of these regression analyses.

Table 2. Results of the 107 day regression analyses performed on t-butanol samples.

Sample	r^2 value (Model)	Predicted day that t-butanol would reach 12 ppb
Sample 1 - J-00056620	0.99131 (Exponential)	97
Sample 2 - J-00056621	N/A	Level below 12 ppb by day 107
Sample 3 - J-00057146	0.97599 (Power)	241
Sample 4 - J-00057147	0.93866 (Power)	> 2 years
Sample 5 - J-00057148	0.99205 (Exponential)	112
Sample 6 - J-00057149	0.99724 (Exponential)	135
Sample 7 - J-00057150	0.91662 (Exponential)	137
Sample 8 - J-00057151	0.92825 (Power)	> 2 years
Sample 9 - J-00057152	0.86628 (Exponential)	147
Sample 10 - J-00057153	N/A	Level below 12 ppb by day 107

The model used was selected based on the best fit to either the power or exponential model. In 6 of the 10 samples the exponential model demonstrated the best fit. In the other 4 samples the power model demonstrated the better fit. The extraction and decay of t-butanol results vary by the amount of peroxide used, the age of the tubing, the cross-linking method and the variability that can be introduced during the manufacture of this material. Regression analysis indicates that the 8 samples reporting t-butanol levels above 13 ppb on day 107 would decay to below 13 ppb in as few as 97 days to a maximum of greater than 2 years.

If you have any further questions, please contact me at 734-913-5737.

Sincerely,

Clifton J. McLellan
Director of Toxicology Services
NSF International

Appendix A

Figure 1. PSF# J-57146 - MTBE

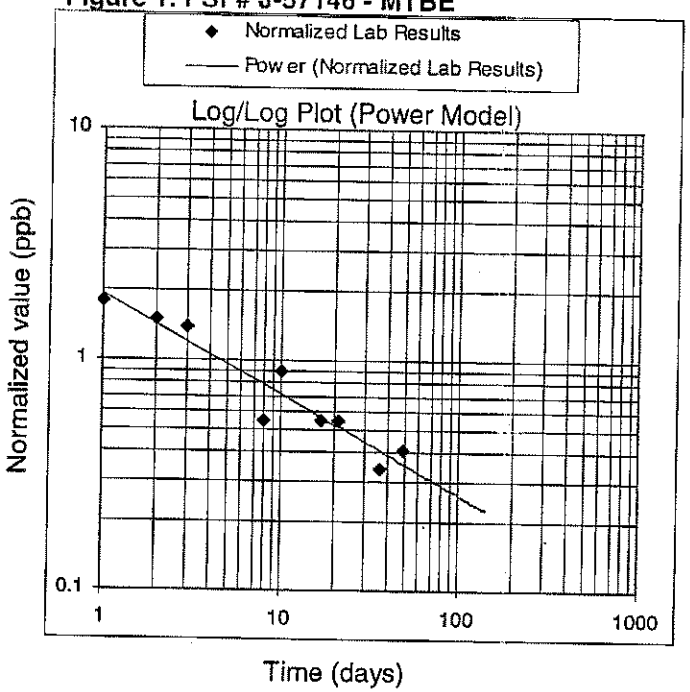

Figure 2. PSF# J-57146 – t-butanol

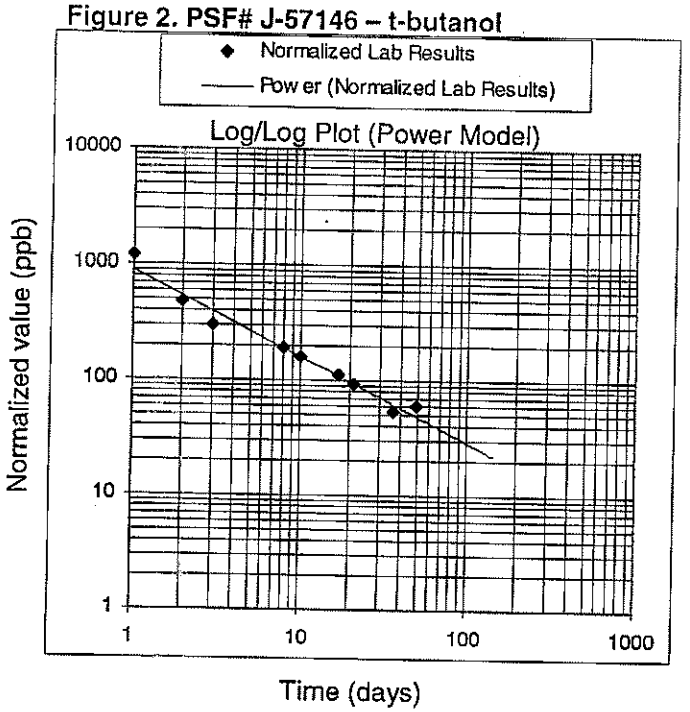

Figure 3. PSF# J-57147 - MTBE

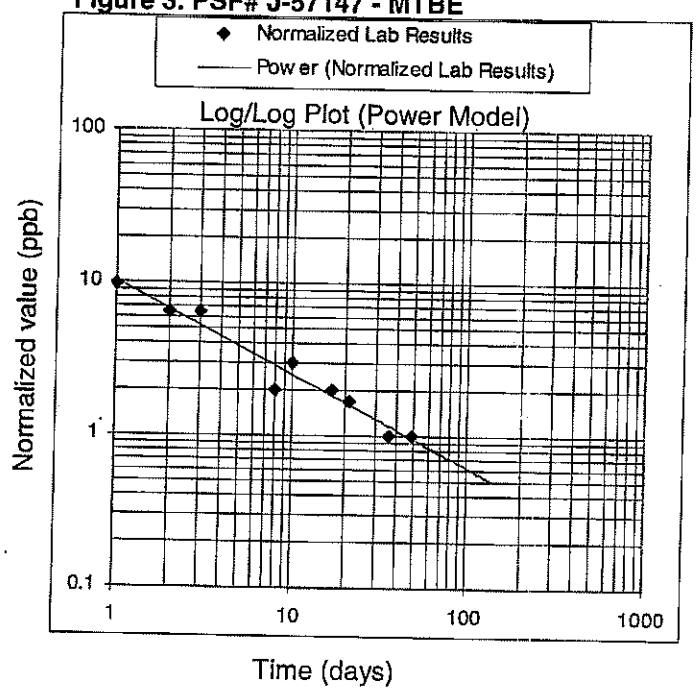

Figure 4. PSF# J-57147 – t-butanol

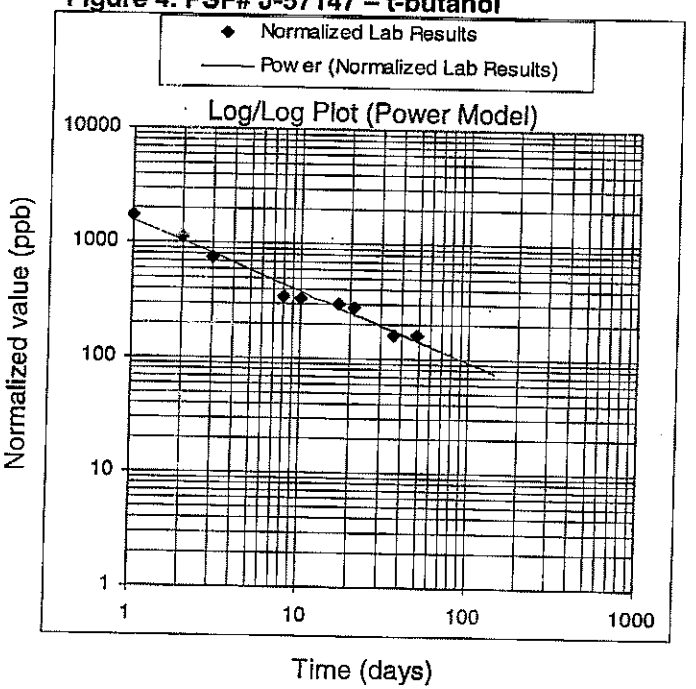

Figure 5. PSF# J-57148 - MTBE

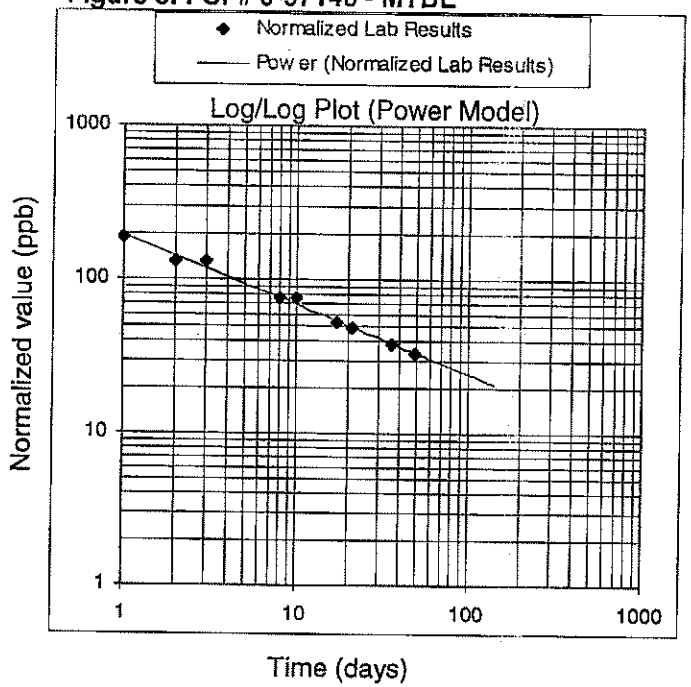

Figure 6. PSF# J-57148 – t-butanol

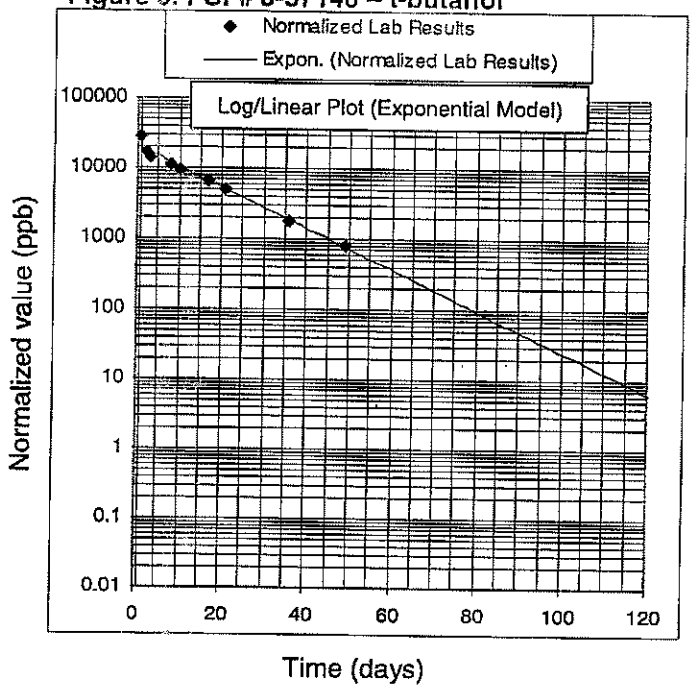

Figure 7. PSF# J-57149 - MTBE

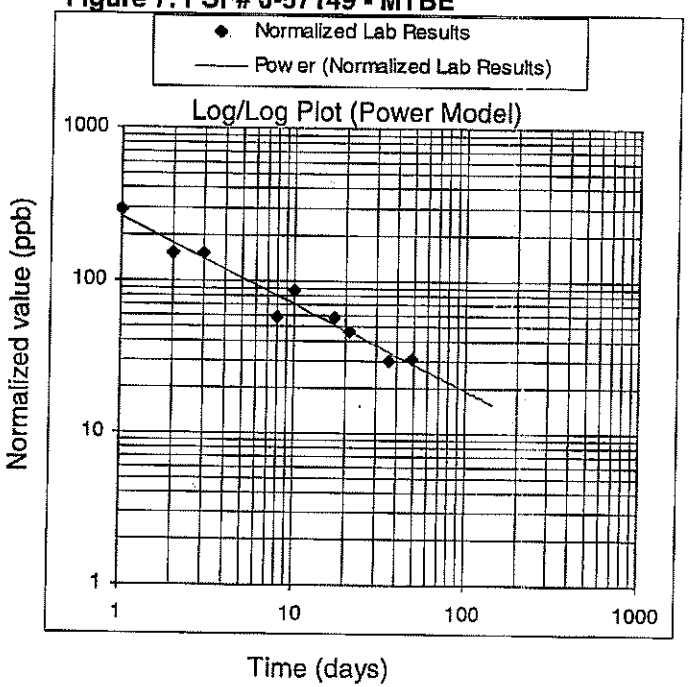

Figure 8. PSF# J-57149 – t-butanol

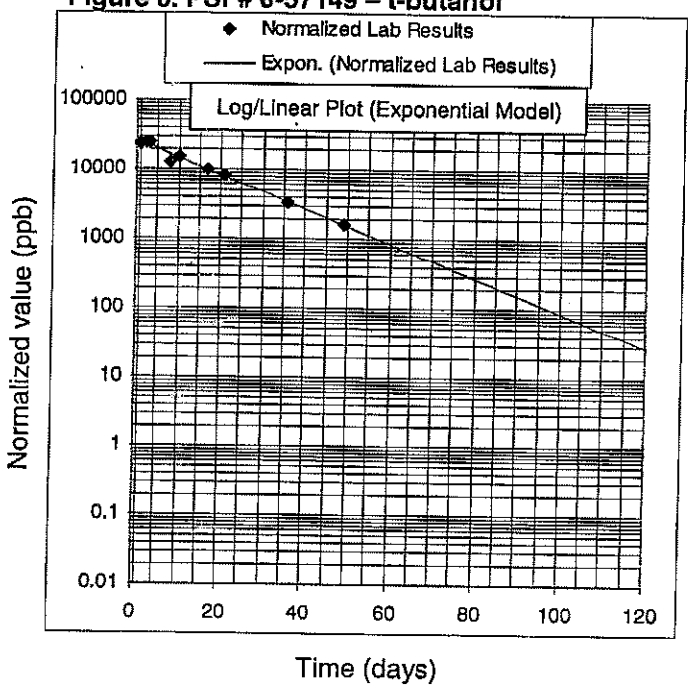

Figure 9. PSF# J-57150 - MTBE

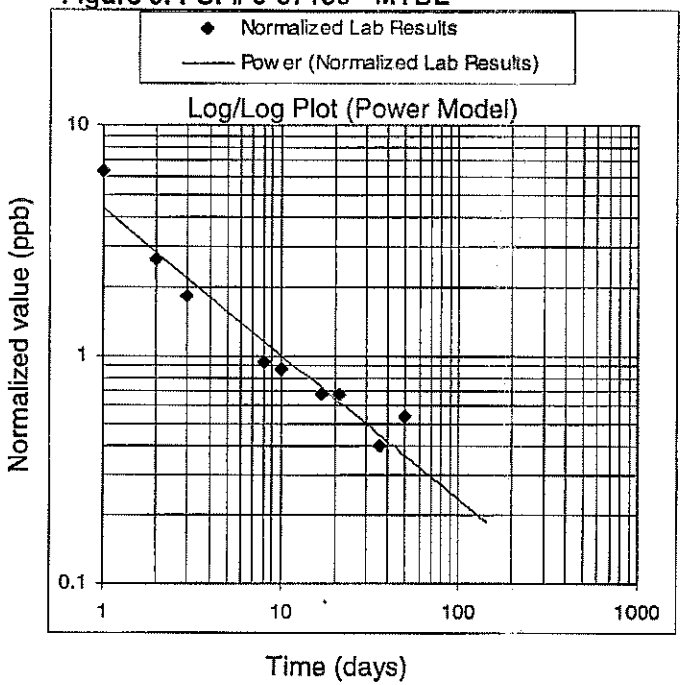

Figure 10. PSF# J-57150 – t-butanol

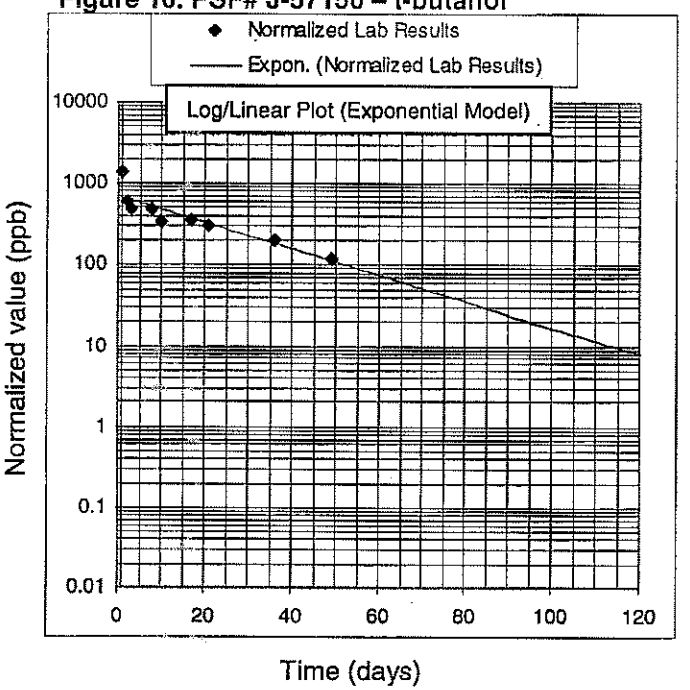

Figure 11. PSF# J-57151 - MTBE

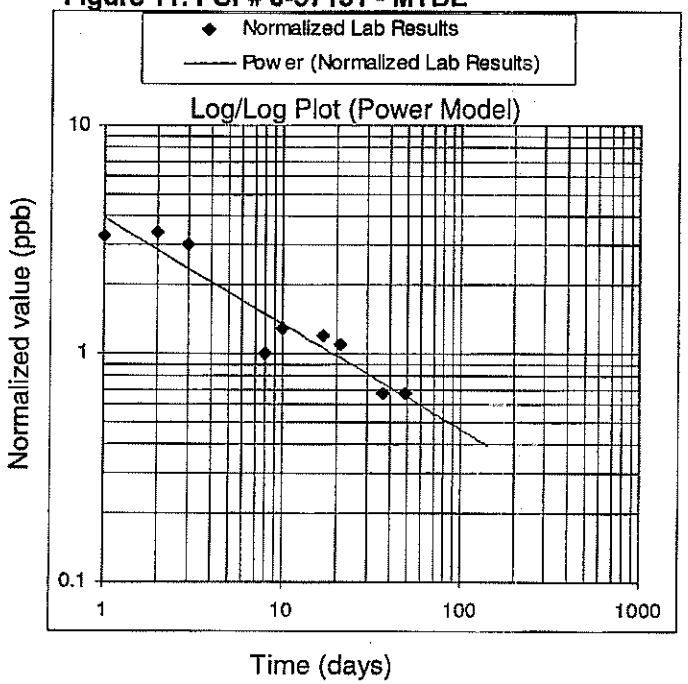

Figure 12. PSF# J-57151 – t-butanol

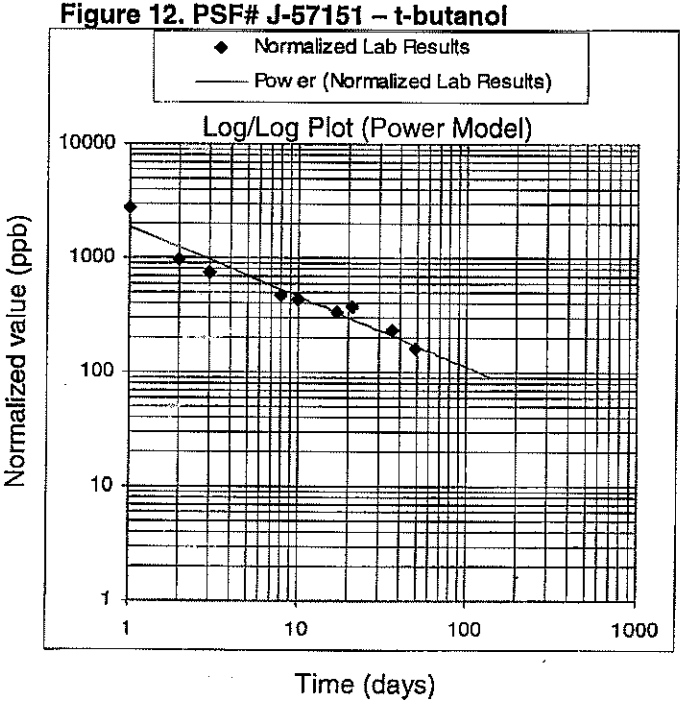

Figure 13. PSF# J-57152 - MTBE

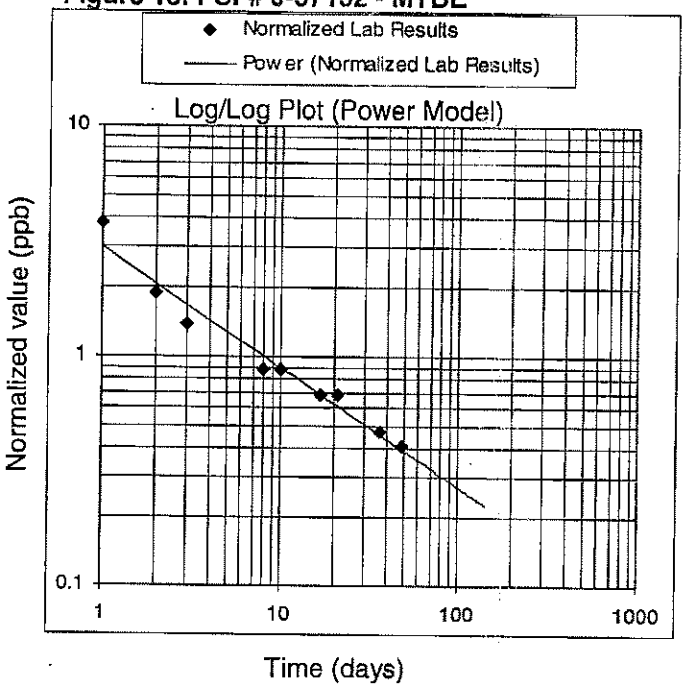

Figure 14. PSF# J-57152 – t-butanol

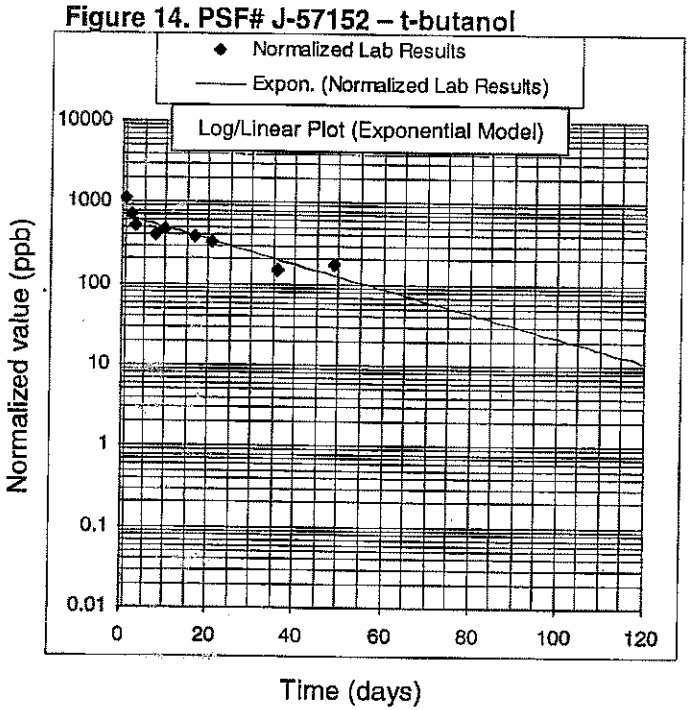

Figure 15. PSF# J-57153 - MTBE

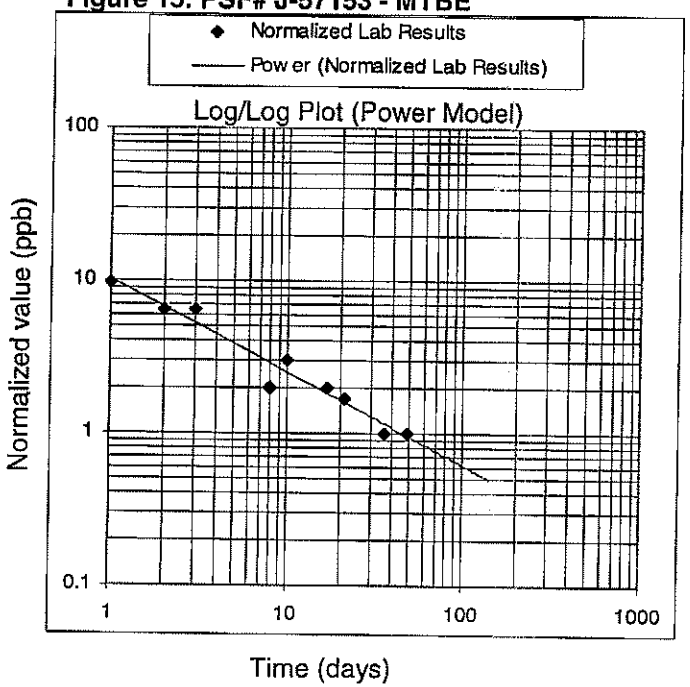

Figure 16. PSF# J-57153 – t-butanol

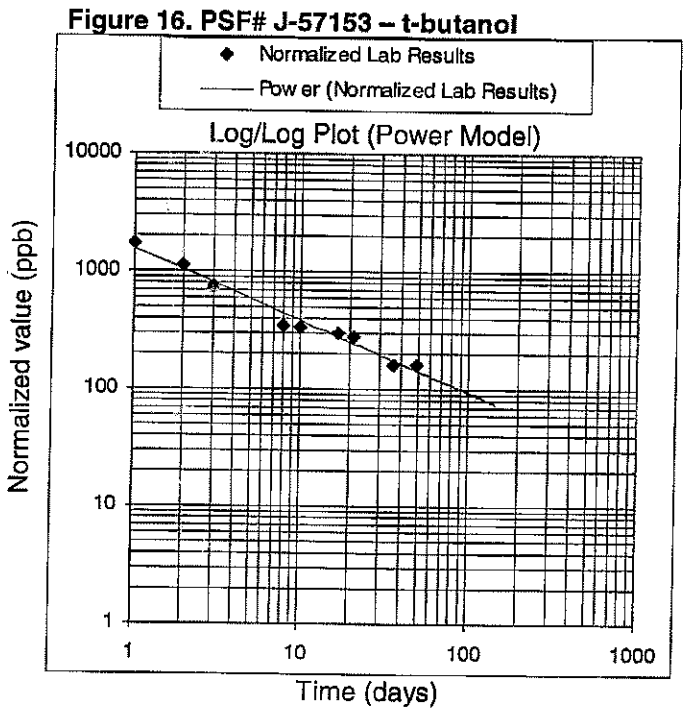

Figure 17. PSF# J-56220 - MTBE

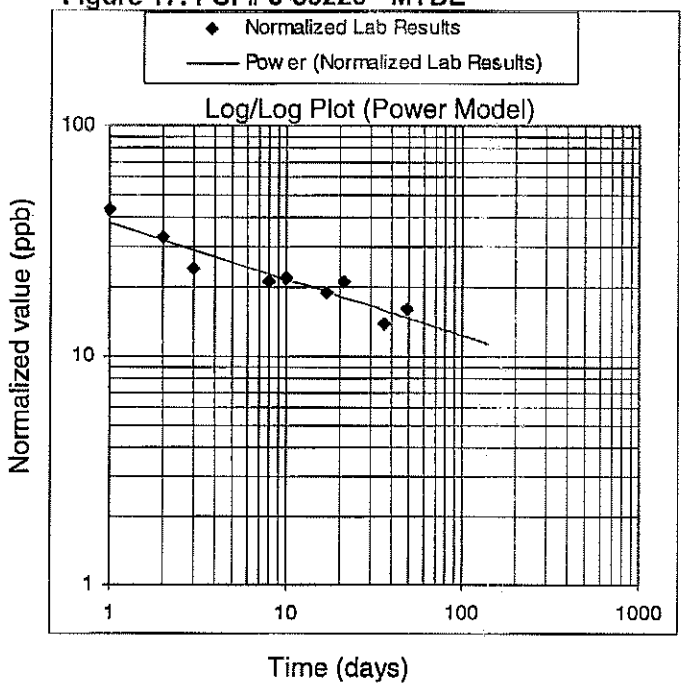

Figure 18. PSF# J-56220 – t-butanol

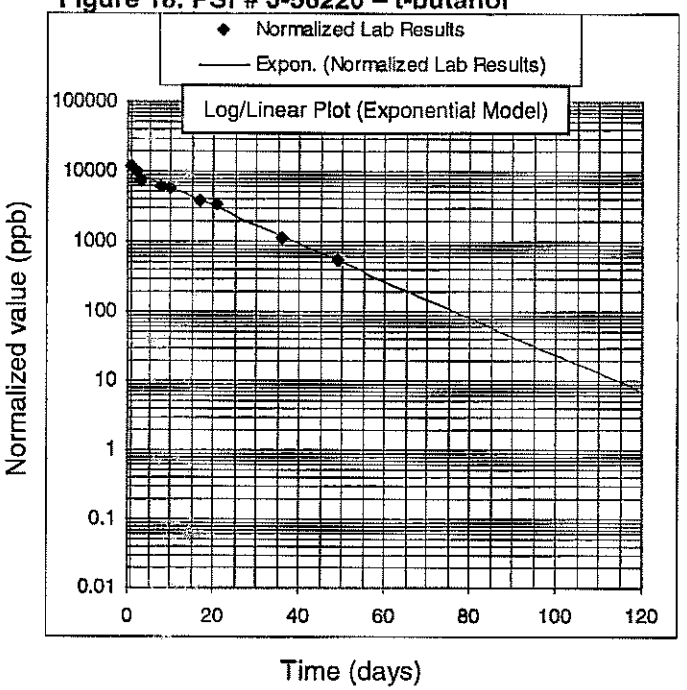

Figure 19. PSF# J-56221 - MTBE

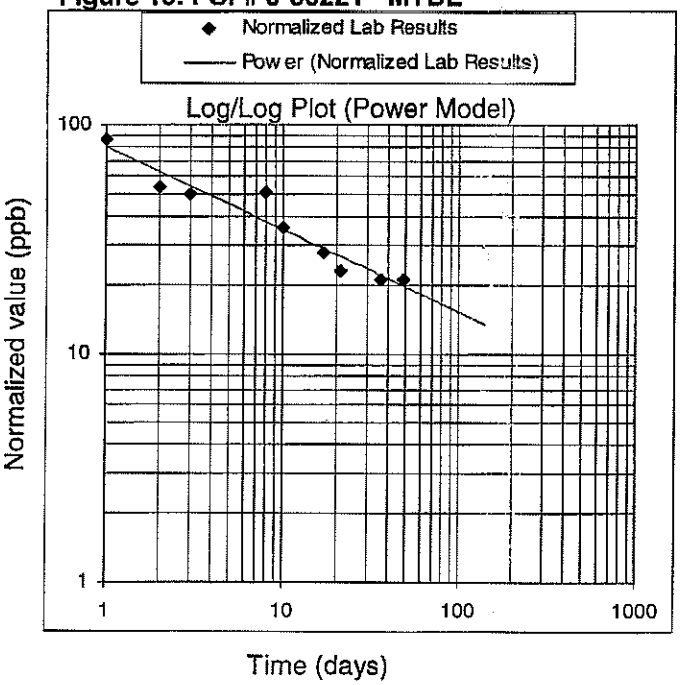

Figure 20. PSF# J-56221 – t-butanol