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September 27, 2011

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Mr. Paul Higgenbotham, Branch Chief
Indiana Department of Environmental Management
Office of Water Quality- Permits Branch
Mail Code 65-42
100 North Senate Avenue Room IGCN 1255
Indianapolis, IN 46204

Subject: SMV Application Update

Dear Mr. Higgenbotham:

Since the time of the submittal of the SMV application in November 2010, BP has provided you an update on recent information from our ongoing technology reviews and recent updated laboratory bench top studies from Purdue Water Institute and Argonne National Labs in our response to comments dated May 13, 2011. Based on this updated information BP would like to include an additional planned activity in our Pollution Minimization Program Plan (PMPP). This additional activity includes the plan to review the data collected by Purdue and Argonne to determine next steps as needed for further technology evaluations.

As was stated in our application and in our response to comments, BP believes that this activity is separate from the mercury minimization efforts described in the PMPP. BP has already invested millions of dollars toward continued third-party research and engineering studies evaluating potentially viable waste water treatment technologies and BP will continue seeking to identify new tools and processes with the potential to further reduce the levels of pollutants discharged from the facility. As a first step to evaluate mercury treatment technologies, a comprehensive paper study of the effectiveness of various treatment technologies for mercury removal at ppt concentrations was completed by Purdue and Argonne. Next, bench scale treatability testing of about 30 different technologies have been completed in certified clean rooms and using rigorous QA/QC procedures. Subsequently, pilot-scale testing of selected technologies, utilizing refinery waste water samples, has begun to determine whether treatment can consistently achieve discharge concentrations less than 1.3 ppt of mercury.

Pursuant to 327 IAC 5-3.5-9(3), BP has provided a "list of planned activities" to be conducted to eliminate or minimize the release of mercury to water, including all

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specified elements of the SMV rule. However, regardless of the rule requirements, BP proposes the additional planned activity language as follows:

- 1) Develop an Action Plan Based on Recommendations from Previous Pilot Work:
Conduct a review of the reports for Purdue/Argonne pilot study conducted at the WBU refinery and submit a report to IDEM summarizing recommendations for further evaluation steps within 6-months of NPDES permit modification incorporating the SMV.
- 2) If a particular mercury removal technology is recommended for an additional pilot demonstration after completion of the Purdue/Argonne pilot studies conducted at the WBU refinery, BP Whiting would commence a pilot demonstration unit to further review the recommended technology[ies] according to the following schedule:

Begin operation of such pilot demonstration unit of similar size as the Purdue/Argonne pilot within 18-months of NPDES permit modification incorporating the SMV. Complete the pilot demonstration and submit a final report to IDEM within 36-months of NPDES permit modification incorporating the SMV. The pilot demonstration evaluation will include at least the following: performance under varying weather and process conditions, evaluation of options for waste streams, and reliability, operability, and feasibility. The IDEM report shall summarize the results of the pilot demonstration, including reliability and feasibility of the piloted mercury removal technology, and recommendations for the next phase of review.

- 3) Assessment of Benefits for Mercury Reduction of New Brine Treatment Unit and Final Filters:

Complete an evaluation of the mercury reduction of the new brine treatment unit and final filters being installed at WBU and submit a final report to IDEM within 18-months of startup of both the brine treatment unit and final filters. The evaluation will include at least the following: performance under varying weather and process conditions, evaluation of options for waste streams, and reliability, operability, and feasibility. The IDEM report shall summarize the results of the evaluation, including reliability and feasibility of the mercury removal, and recommendations for the next phase of review.

If you have any further questions or need more information please contact Rose Herrera at 219-473-3393 or email at Rosalie.Herrera@bp.com.

Sincerely



Nick Speneer
Whiting Business Unit Leader

Copy: Steve Roush, IDEM Office of Water Quality, Permits Branch