

**UNITED STATES OF AMERICA  
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION**

HILDA L. SOLIS, SECRETARY OF LABOR, :  
UNITED STATES DEPARTMENT OF LABOR, :

Complainant, :

OSHRC Docket Nos. :

09-1695 :

09-1787 :

v. :

BP PRODUCTS NORTH AMERICA INC., :  
and its Successors, :

Respondent. :

**STIPULATION AND AGREEMENT**

**I.**

**Scope**

A. The United States Department of Labor (“DOL”), Secretary of Labor (“Secretary”), Occupational Safety and Health Administration (“OSHA” or the “Agency”) and BP Products North America Inc. (“BP Products”) (collectively, “the Parties”) agree, as fully described herein, to a full and complete settlement of (1) the contested notifications, proposed penalties, and abatement actions proposed and set forth in the Notifications of Failure to Abate Alleged Violation (“FTAN”), Items 1 – 270, that were issued to BP Products on October 29, 2009, and are docketed before the Occupational Safety and Health Review Commission (“OSHRC”) as Docket No. 09-1787; (2) BP Products’ Petition for Modification of Abatement Date (“PMA”), filed on September 21, 2009; and (3) BP Products’ Amended Petition for Modification of Abatement Date (“Amended PMA”) filed on October 5, 2009, and docketed as Docket No. 09-1695. Both docketed proceedings arise from the September 22, 2005 Agreement

between BP Products and OSHA (the "2005 Agreement") which is hereby extended to include the abatement required herein.

B. It is the intent of this Stipulation and Agreement (hereinafter "Agreement") to ensure that BP Products fully complies with the provisions of the Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651, *et seq.* (the "Act"), and OSHA standards, including but not limited to the standards governing process safety management, refinery-wide at the Texas City Refinery (the "Refinery").

C. It is also the intent of this Agreement that BP Products will perform, on the schedules specified herein, the remaining activities that OSHA maintains are required under the 2005 Agreement, in addition to the activities previously completed. Exhibit 1 lists abatement BP Products maintains was previously completed under the 2005 Agreement.

## II.

### Corporate Commitment

#### A. Evaluations and Implementation of Permanent Controls

BP Products will implement schedules and permanent controls at the Refinery that will significantly accelerate performance of the following:

1. Evaluating pressure relief devices and systems;
2. Addressing deficiencies from recognized and generally accepted good engineering practices ("RAGAGEP") in pressure relief devices and systems;
3. Performing robust layer of protection analyses ("LOPA's"); and
4. Implementing the American National Standard ("ANSI")/ISA-84.00.01-2004 entitled Functional Safety: Safety Instrumented Systems ("SIS") for the Process Industry Sector ("SIS Standard").

BP Products will fulfill these commitments by completing the abatement specified in Section VII.

B. Interim Measures

In addition, BP Products will implement interim measures to abate potential hazards from refinery processes consistent with 29 CFR 1910.119 (OSHA's "PSM Standard") during the period while Permanent Modifications are evaluated and implemented. BP Products will timely implement all of the interim measures specified in Section VI below. BP Products will fulfill these commitments by completing the abatement specified in Section VI.

C. Abatement Funds

BP Products shall secure, with the support of the BP America Inc. Board of Directors, an allocation of funds in the amount of Five Hundred Million Dollars (\$500,000,000) to complete the actions required by Sections VI, VII and VIII of this Agreement ("Abatement Funds"). The Abatement Funds shall be made available, as needed, without regard to apportionment over time. If additional Abatement Funds are needed to timely mitigate the potential hazards described above, BP Products shall immediately secure, with the support of the BP America Inc. Board of Directors, the allocation of such funds to the Refinery.

D. Corporate Liaison

For the duration of this Agreement, the BP Products Vice President, US Regulatory Affairs for Refining & Marketing ("VP US Regulatory Affairs") shall serve as a liaison to ensure alignment between OSHA and the senior executives in BP. As part of fulfilling this role, the VP US Regulatory Affairs shall have access to the BP Products and BP America Inc. Board of Directors as well as senior executives, including the Chief Executive Officer of Refining and Marketing for BP plc. One of the duties of this role shall be to oversee and assure compliance by

BP Products with this Agreement. To that end, the VP US Regulatory Affairs shall communicate as often as necessary with OSHA officials during the term of this Agreement regarding any issues related to compliance and shall report any of OSHA's concerns to the executives and appropriate Board of Directors as soon as possible. Also, the VP US Regulatory Affairs shall provide prompt feedback to OSHA regarding the Board's response to any OSHA concerns. The Secretary may communicate with the VP US Regulatory Affairs at any time during the term of this Agreement notwithstanding any other terms in this Agreement, including the Dispute Resolution provision, at the address and phone number specified in Section XIII.P.

**III.**

**Amendment of the FTAN**

A. FTAN Items to be Withdrawn

Due to inadvertent duplication, the Secretary agrees to withdraw FTAN Item Nos. 104, 130, 166, 168, 180-185, 187-194, 204, 230, and 232-240.

B. FTAN Amended by This Agreement

Excluding the withdrawn FTAN Items listed in Section III.A above, the parties agree that the FTAN Items 1-270, docketed as OSHRC No. 09-1787, are amended to include the full terms of this Agreement, including the abatement actions and dates stated herein in lieu of the abatement actions and plans in the original FTAN. Except as specifically noted in this Agreement, the failure to perform any measure required in the Agreement may be cited as failure to abate under Section 10(b) of the Act, 29 U.S.C. § 659, to the same extent as if these abatement measures had been set forth from the outset in the citations and the 2005 Agreement from which the PMA and Amended PMA arise.

C. Total Penalties

BP Products agrees to pay the full amount of the remaining proposed penalties totaling Fifty Million, Six Hundred Ten Thousand Dollars (\$50,610,000.00).

D. Agreement Resolves All Issues

This Agreement resolves BP Products' PMA and Amended PMA docketed as OSHRC Docket No. 09-1695.

IV.

**Withdrawal of Notice of Contest and Entry of Final Order**

Respondent hereby withdraws its notice of contest to FTAN 1-270, proposed penalties and abatement dates in OSHRC Docket No. 09-1787, as amended and set forth herein, and the parties agree to the entry of a final enforceable order of the OSHRC consistent with the terms of this Agreement. Complainant agrees that this settlement fully resolves the FTAN.

V.

**Payment of Penalties**

In full settlement of the penalties proposed by OSHA for the FTAN, Respondent agrees to pay the sum of Fifty Million, Six Hundred Ten Thousand Dollars (\$50,610,000.00) within thirty (30) days after this Agreement becomes a final order of the OSHRC. Respondent shall tender payment to the U.S. Department of Labor, OSHA, in care of

Mark Briggs, Area Director  
Houston South OSHA Area Office  
17625 El Camino Real, Suite 400  
Houston, TX 77060

VI.

Interim Measures

A. BP Products Agrees to Implement Interim Measures to Protect Employees

BP Products shall use the Interim Measures defined in this Section to protect employees during the period that any equipment deficiencies identified pursuant to Section VII.B. (Relief Systems) and VII.D. (LOPA's) are being corrected and layers of protection, including permanent engineering controls, consistent with applicable OSHA standards are implemented as final abatement pursuant to Section VII.

B. Definitions:

1. Interim Control – a temporary device, system, or action that is designed to prevent a hazard scenario from occurring or proceeding to its unmitigated consequence.

Examples of interim controls include process design changes, process control changes, changes in operating limits (e.g., reducing equipment demand), critical alarms, physical protection devices (e.g., relief valves, rupture discs, blast walls, dikes), and extraordinary testing and inspection.

2. Interim Safeguard – a temporary device, system, or action that is designed to prevent a hazard event from occurring or to reduce the severity of the event if it occurs.

Examples of interim safeguards include training and certification, revised operating procedures, administrative controls, plant communication, fire protection, physical barriers, and plant emergency response.

3. Interim Measures – Interim Controls and Interim Safeguards, collectively.

4. Independent Protection Layer (“IPL”) – a device, system, or action that is capable of preventing a postulated accident sequence from proceeding to a defined undesirable

end point. An IPL is (1) independent of the event that initiated the accident sequence and (2) independent of other IPLs.

5. IPL Credit – a reduction in the probability of an event by one order of magnitude or a comparable reduction in consequence.

6. Permanent Modification – a long-term solution that reduces the consequence or probability of an event. Examples of permanent modifications include process design changes, equipment modifications or replacement, process control modification, permanent changes in operating limits (reducing equipment demand), and physical protection devices (e.g., relief valves, rupture discs, blast walls, dikes).

C. Interim Measures must be Adequate to Assure Safe Operation

To the extent feasible in instances in which a Permanent Modification required by this Agreement has not been implemented, BP Products shall implement as many Interim Controls as necessary to ensure safe operation. To the extent Interim Controls are not feasible or fully adequate to ensure safe operation, BP Products will, in addition to feasible Interim Controls, implement as many Interim Safeguards as necessary to ensure safe operation; however, in all cases the Interim Measures required by this Section must be adequate to ensure safe operation consistent with 29 CFR 1910.119.

D. Potential Hazards Requiring Three or More IPL Credits to Mitigate

1. When a risk of a potential hazard requiring three or more IPL Credits is identified pursuant to the LOPA of Record required by VII.D., BP Products shall begin to take action immediately (in no case more than seventy-two (72) hours after the potential hazard has been identified) to implement Interim Measures. As soon as possible thereafter, but in no case more than ninety (90) days after identifying the potential hazard, BP Products will implement

Interim Measures equivalent to one or more IPL Credits. These Interim Measures shall reduce the potential hazard to a level equivalent to that of a potential hazard requiring no more than two IPL credits to mitigate pursuant to LOPA procedures or other analyses conforming with RAGAGEP. The Interim Measures shall remain in place until the potential hazard is abated by the implementation of a Permanent Modification as required by the LOPA of Record or other appropriate analysis. If it is not feasible to implement one or more IPL Credits within ninety (90) days to achieve this result, BP Products will immediately shut down the process in a safe and orderly manner.

2. For all potential hazards subject to subparagraph 1. above, BP Products shall notify telephonically or electronically the OSHA Area Director within twenty-four (24) hours after validating that such a potential hazard exists.

3. No later than the seventy-fifth (75<sup>th</sup>) day before the end of the ninety (90) day period referred to in paragraph D.1. above, BP Products may notify the OSHA Area Director in writing that it has an alternative to shutting down the process that will effectively address the risk of the potential hazard. The notice must describe the plan in detail. BP Products may implement the alternative plan only if OSHA does not object within fifteen (15) days after receipt of the plan. At the Area Director's discretion, additional time may be granted for further evaluation prior to shutting down the process.

E. Potential Hazards Requiring One or Two IPL Credits to Mitigate

When a potential hazard requiring one or two IPL Credits is validated pursuant to the LOPA of Record process required by VII.D., BP Products will begin to take action immediately (in no case more than seventy-two (72) hours after validating a hazard) to implement Interim Measures. The Interim Measures shall remain in place until the potential hazard is abated by the

implementation of a Permanent Modification as required by the LOPA of Record or other appropriate analysis.

F. Interim Measures are the Minimum Required

The Interim Measures described in this Section VI are considered to be the minimum measures required to protect employees until Permanent Modifications are implemented. If BP Products becomes aware of economically and technically feasible measures or controls that will provide additional or more reliable protection to employees, BP Products shall advise OSHA and implement these measures or controls as soon as feasible.

G. Increased Inspection, Testing and Maintenance of Critical Instrumentation

BP Products agrees, for the duration of this Agreement, to conduct at least annually, or more frequently if required by the manufacturer's specifications or actual experience, testing and preventative maintenance of all safety critical instrumentation to enhance reliability. OSHA recognizes that certain trip systems will have individual components tested at least annually; however, the testing of the entire system can only be completed during a turnaround, which will occur less frequently. Safety Instrumented System ("SIS") testing will be governed by the procedures outlined in the SLMM contemplated by Section VII.C., below, rather than by this paragraph. BP Products has provided a list of critical instruments to OSHA. OSHA acknowledges that the list will change over time as instruments are replaced, safety instrumented functions and systems are installed, and other changes are made at the Refinery. BP Products shall provide to OSHA updated information on the current status of inspection, testing and preventative maintenance of safety critical instrumentation at least quarterly.

H. Program for Inspection, Testing and Maintenance of Critical Instrumentation

BP Products shall maintain a management program(s) to identify and to address inspections, tests and preventive maintenance and to document and ensure that all inspections, tests and maintenance are timely conducted as required by Section VI.G, above.

I. Quarterly Reports on Inspection, Testing and Maintenance of Critical Instrumentation

Until the abatement certification required by Section IX has been submitted, BP Products shall submit quarterly reports to OSHA starting on October 30, 2010, (for the preceding quarter which includes July, August, and September), and continuing through the expiration of this Agreement, of the safety critical instrumentation inspection, testing and preventive maintenance conducted in accordance with Section VI.G, above. In the event any inspection, testing and maintenance items are overdue, the reports shall document the specific steps taken to ensure that the overdue items are addressed timely.

J. Record Retention

BP Products shall retain records documenting the inspections and tests required by Section VI.G. above in accordance with 29 CFR 1910.119. If inspections and tests are conducted on Interim Measures, the retention of these inspection and testing records are required up to the time when the Permanent Modifications related to the critical instrumentation have been implemented on that particular process unit, and for two (2) years thereafter.

VII.

**Final Abatement of FTAN Items**

A. Abatement Actions Constitute Full Abatement

The abatement set forth in this Section VII fully satisfies the demand for abatement set forth in the FTAN and any amendments thereto. As discussed in Section XIII.D, below, this Agreement as to the terms of abatement does not resolve or in any way prejudice the right of OSHA to pursue all remaining claims, allegations, and penalties alleged in or related to the citations issued to BP Products and docketed as OSHRC Docket No. 09-1788, nor does it in any way prejudice BP Products' defenses to any such claims, allegations, and penalties.

B. Equipment-Based Relief System Evaluations FTAN Items 1-28

1. Consistent with the schedule and scope set forth in Exhibits 2 and 3, BP Products shall complete an evaluation of each piece of equipment requiring or providing pressure relief, which is identified by BP Products internally as "Equipment-based validation of the Inside Unit Battery Limit (ISBL) relief systems" (hereinafter, "evaluation" or "evaluations"). Each evaluation shall collect and verify the accuracy of the information required to analyze the adequacy of pressure relief in the process units in accordance with RAGAGEP and shall identify any deviations from RAGAGEP as described below. Folders with the required information for both pressure relief devices and pressure relief systems shall be developed as further described in Exhibits 4 and 5. Deviations from RAGAGEP shall be listed and described in the folders.

2. Among other things, the evaluations shall identify pressure-relief valves for which the total non-recoverable pressure loss between the protected equipment and the pressure-relief valve exceeds three percent (3%) of the valve set pressure, except as permitted by API 520, including for pilot-operated pressure relief valves (the "3% inlet drop parameter"). BP Products

shall develop a list of systems that exceed the 3% inlet drop parameter. OSHA reserves its right to assert that all systems exceeding the 3% inlet drop parameter violate the OSHA PSM Standard. BP Products reserves the right to assert that systems exceeding the 3% inlet drop parameter but that will not experience a pressure loss exceeding five percent (5%) of the valve set pressure do not violate OSHA's PSM Standard. The Parties agree that the 3% inlet drop parameter dispute will be resolved by the proceeding referred to in Section XIII.D. rather than this proceeding.

3. BP Products agrees that it will correct all deficiencies in equipment that are outside acceptable limits as defined by RAGAGEP in a safe and timely manner as required by OSHA's PSM Standard. By February 12, 2012, BP Products will provide OSHA with a time line or schedule for correction of the identified deficiencies through the installation and commissioning of permanent solutions. The dates set forth in the schedule shall provide for correction in a safe and timely manner as required by the PSM Standard. The Secretary may issue a citation alleging that the failure to meet any such final dates is a failure to comply with OSHA's PSM Standard. The Secretary agrees, however, that the failure to fulfill the obligations under this Section VII.B.3. shall not form the basis for an allegation that the violation is a failure to abate under Section 10(b) of the Act. Nothing herein is intended to alter the normal burdens of proof or normal procedures in any such proceeding.

4. BP Products shall take necessary means to assure safe operation until the potential hazard is addressed with Permanent Modifications in a safe and timely manner as required by 29 CFR 1910.119. The parties agree that the Interim Measures described above in Section VI.B constitute "necessary means" under 29 CFR 1910.119(j) when they are adequate to assure safe operation.

5. Until the abatement certification required by Section IX has been submitted, BP Products shall submit quarterly reports to OSHA starting on October 30, 2010, (for the preceding quarter which includes July, August, and September), and continuing through the expiration of this Agreement, that contain the following information regarding the pressure relief evaluations:

(a) Quarterly progress updates describing the planning and actions being taken to complete the evaluations in accordance with the schedule in Exhibit 2;

(b) Where actual progress may not be sufficient to substantially comply with the schedule in Exhibit 2, the reason for non-compliance and the plan to meet the dates in Exhibit 2;

(c) A listing of each process unit for which the evaluations were completed during the quarter;

(d) Identification of all relief systems with inlet pressure drop exceeding the 3% inlet drop parameter;

(e) A list of each relief valve folder for which the information was validated and risk assessed in the quarter;

(f) A list of all pressure relief deviations identified by unit and specific relief valve folder;

(g) A list of pressure relief deviations for which the risk was mitigated in the quarter. The list shall document the extent to which each risk identified was eliminated or mitigated in the quarter and the methods used to achieve such mitigation.

(h) A list of any pressure relief deviations abated by the installation and commissioning of Permanent Modifications.

C. Lifecycle Management of Process Safety Risks FTAN Items 29-270

1. Consistent with the scope and schedule set forth in Exhibit 6, BP Products shall complete a Safety Instrumented System Lifecycle Management Manual ("SLMM") to more completely implement the SIS Standard (ANSI/ISA S84.00.01-2004) at the Refinery. The SLMM shall cover the following subject matters:

- (a) Policies, Procedures, and/or Standards;
- (b) Competency Requirements;
- (c) Training Requirements;
- (d) Documentation Requirements;
- (e) Roles and Accountabilities of Departments and Individuals; and
- (f) Compliance Assurance and Auditing Protocols.

2. The Parties agree that the Table of Contents for the SLMM, set forth in Exhibit 7, reflects the appropriate subject matters for the SLMM.

3. Until the abatement certification required by Section IX has been submitted, BP Products shall submit quarterly reports to OSHA starting on October 30, 2010 (for the preceding quarter, which includes July, August, and September) and continuing through expiration of this Agreement, that compare actual progress in developing the SLMM to the schedule in Exhibit 6. Where actual progress does not substantially comply with the schedule, BP Products shall explain the reason for the lack of compliance and report its actions to address past due items.

D. Completion of Layer of Protection Analysis FTAN Items 29-270

1. Consistent with the scope and schedule set forth in Exhibit 8, BP Products shall complete a LOPA for the applicable process safety potential hazards for each operating

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process unit consistent with RAGAGEP. These LOPA's will be limited to process safety-related potential hazards for each unit's operation, and will consider prior process hazard analyses such as generic LOPA's, Unit HAZOP and other similar assessments. BP Products may also conduct a Quantitative Risk Analysis ("QRA") in addition to the LOPA according to its policies and internal guidelines. The LOPA's and QRA's completed under this Agreement are known in this Agreement as the "LOPA's of Record." The LOPA's of Record shall be conducted in accordance with RAGAGEP and shall specify the layers of protection and engineering controls necessary or otherwise recommended to control the potential hazards for each unit's operation. For purposes of this Agreement and the commitments undertaken pursuant to it, BP Products acknowledges that the LOPA's of Record constitute process hazard analyses subject to 29 CFR 1910.119(e).

2. Quarterly Reporting by BP Products regarding LOPA's of Record

Until the abatement certification required by Section IX has been submitted, BP Products shall submit quarterly reports to OSHA starting on October 30, 2010 (for the preceding quarter which includes July, August, and September), and continuing through expiration of this Agreement, that compare the actual progress in completing the LOPA's of Record to the schedule in Exhibit 9. Where actual progress does not substantially comply with the schedule, BP Products shall explain the reason for the lack of compliance and report its actions to address past due items.

E. Mitigation of LOPA of Record Potential Hazards FTAN Items 29-270

1. BP Products shall implement all the layer(s) of protection and any other controls recommended by the LOPA of Record process in a safe and timely manner as required by 29 CFR 1910.119. With the exception of the actions specified in paragraphs E.2 and E.3,

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below, the parties agree that BP Products is obliged to complete the actions required by this paragraph due to its regulatory obligations not due to its alleged failure to abate under the 2005 Agreement. Pursuant to Section VI above, BP Products shall use Interim Measures to ensure safe operation until all Permanent Modifications have been installed and commissioned. In those instances in which the Permanent Modification will be a measure other than a SIS, the Secretary may issue a citation alleging that the failure to implement an Interim Measure or a Permanent Modification is a failure to comply with OSHA's PSM Standard. However, the Secretary agrees that such a failure to implement an Interim Mitigation or Permanent Modifications shall not form the basis for an allegation that the violation is a failure to abate under Section 10(b) of the Act.

2. BP Products shall complete the installation of SIS pursuant to Exhibit 9.

3. By February 12, 2012, BP Products will submit to OSHA a final schedule identifying completion dates for the installation of SIS for the process units listed on Exhibit 10. The completion dates shall be as expeditious as appears feasible at the time the schedule is established. BP Products commits to exercising good faith efforts to expedite the schedule to result in final completion dates that are more expeditious than the preliminary completion dates included in Exhibit 10 to the extent it becomes feasible. The Secretary may issue a citation alleging that the failure to meet any such final dates in the final schedule is a failure to comply with OSHA's PSM Standard. The Secretary agrees, however, that the failure to meet such final dates under this paragraph VII.E.3 shall not form the basis for an allegation that the violation is a failure to abate under Section 10(b) of the Act. In the event BP fails to meet any such date, in defending against a citation alleging violations of the PSM Standard, BP Products will have the burden of proving that meeting the date was infeasible and that it is proceeding as expeditiously as feasible.

4. Until the abatement certification required by Section IX has been submitted, BP Products shall submit quarterly reports to OSHA starting on October 30, 2010 (for the preceding quarter, which includes July, August, and September), and continuing through expiration of this Agreement, that include the following information:

(a) A list of each LOPA of Record completed in the quarter. For the first quarter report submitted, this report will also include the list of LOPA's of Record that were completed prior to the first quarter.

(b) A list by unit and LOPA of Record of each potential hazard identified that requires an IPL Credit of one or more to mitigate the hazard. For the first quarterly report, this report will also include a list of each potential hazard identified after January 1, 2010 that requires an IPL Credit of one or more based on the LOPA of Record;

(c) A list of each potential hazard listed under paragraph (b) above that was mitigated in the quarter. The list shall document the extent to which each potential hazard was mitigated in the quarter, whether the potential hazard was mitigated using Interim Measures or Permanent Modifications, and the methods used to achieve such mitigation.

F. Exemption for Idled Equipment

BP Products is exempt from performing all of the aforementioned activities for any process equipment, process unit, or facilities that have been idled. If the completion due date for that equipment has passed, BP Products may not re-start the equipment, process unit, or facility until all activities required by this Agreement are complete.

VIII.

**Independent Verification of Abatement**

A. Objective

The parties agree that independent third-party experts shall review, as set forth in this Section, the abatement actions required of BP Products by Sections VI and VII above, to verify that BP Products is positioned to meet the dates in the schedules established pursuant to Section VII above and in Exhibits 2, 6, 8, and 9 and that BP is completing the required abatement actions in conformance with this Agreement and RAGAGEP, and that BP is properly documenting completion. OSHA will consider the reports of the Independent Verifiers prior to rendering a decision regarding whether BP Products has abated the FTAN potential hazards, but OSHA retains the right to conduct its own inspections to verify completion of abatement. BP Products shall retain and pay for the services of the Independent Verifiers.

B. Selection of Independent Verifiers and Quarterly Report Requirement

1. Within thirty (30) days after the date that this Agreement has been signed by both parties, BP Products will submit to the OSHA Houston South Area Office the names and curriculum vitae of three experts who are not employees of either OSHA or of BP Products, its parents, affiliates, or subsidiaries, to provide verification as contemplated by Paragraph A of this Section. BP Products will nominate one such expert(s) to verify the pressure relief evaluations; another such expert(s) to verify the Lifecycle Management of Process Safety Risk abatement; and another such expert(s) to verify the LOPA's of Record and Mitigation of LOPA Potential Hazards (together, the "Independent Verifiers"). Nothing in this subparagraph VIII.B. precludes one or more experts from fulfilling two or more verifier roles if that expert is acceptable to OSHA.

2. The nominees shall be qualified by education, training, and experience to complete the duties and responsibilities for which each is nominated.
3. OSHA may object to the appointment of a nominee within thirty (30) days of its receipt of the nomination. If OSHA does not object to a nominee within that time period, the nomination shall be deemed acceptable to OSHA.
4. If OSHA objects to a nominee, BP Products shall, within fifteen (15) days after receipt of the objection, nominate another similarly-qualified individual to serve as Independent Verifier. OSHA shall again have thirty (30) days after receipt of this nomination to object to the nominee. BP Products shall then have fifteen (15) days from receipt of the objection to nominate another candidate. The parties shall follow this process until all three of the Independent Verifiers have been selected.
5. The process of selecting the Independent Verifiers will not extend the abatement, certification, or document submission dates required by this Agreement.
6. The Independent Verifiers will submit quarterly progress reports to OSHA, BP Products, and the authorized employee representatives concurrently at the addresses specified in Section XIII below during the verification process.
7. As further described below, the reports shall assess BP Products' abatement activities and state the Independent Verifier's opinion as to whether BP Products is positioned to meet the schedules set forth in Section VII above and in Exhibits 2, 6, 8 and 9, that BP is completing the required abatement in conformance with this Agreement and RAGAGEP, and that BP is properly documenting completion. Additionally, the reports will include a section describing any assumptions the verifiers made, obstacles they encountered, or constraints they had in preparing the work product.

8. If an Independent Verifier's opinion is that BP Products is not completing the required abatement in conformance with this Agreement and RAGAGEP, is not properly documenting its completion, or is not in a position to meet the applicable schedule in Section VII above and in Exhibits 2, 6, 8 and 9, the Independent Verifier shall describe the basis for that opinion in writing and identify the materials supporting that opinion.

9. If either OSHA or BP Products invokes the dispute resolution provision of Section XI below, the Independent Verifier shall cooperate and participate in that process to the extent requested to do so by one or both of the parties.

10. BP Products shall make available all employees, including hourly and skilled (craft) employees, and contractors, and all information (e.g., documents) requested to the Independent Verifiers to assure that they can offer well-informed and timely opinions on the performance of the obligations of this Agreement.

11. BP Products shall grant access to the Independent Verifiers during normal business hours and subject to standard safety considerations to enable the Independent Verifiers to verify performance of this Agreement by physical observation and any other means deemed necessary by the Independent Verifiers.

C. Scope, Reporting, and Pace of Work of Independent Verifiers

Prior to each Independent Verifier's commencement of work under this Agreement, BP Products and OSHA shall collaborate regarding the scope of work described below to be performed by the Independent Verifiers, including review of the contracts and any amendments to be executed by the Independent Verifiers. Employees and their authorized employee representatives shall be consulted in describing and deciding on the scope of the work. BP Products, OSHA and the Independent Verifiers shall agree on the timing, nature and scope of the

work to be performed by the Independent Verifiers before the Independent Verifiers begin work at the Refinery. In performing their duties under this Agreement, including when rendering their opinions as set forth in VIII.B.8, the Independent Verifiers will rely on their own skills, experience and professional judgment, and will also give due deference to the reasonable judgments of BP Products where allowed by the applicable RAGAGEP. The Independent Verifiers shall begin work promptly following award of their individual contracts, and shall report in writing on a quarterly basis on the same schedule that BP Products is required to submit its quarterly reports. Each Independent Verifier shall review an early work product to ensure that any performance issues are identified and corrected. The work shall be paced so that the percentages specified below shall be completed at least three months before the Agreement's expiration date.

D. Scope of Verification

1. *Scope of Independent Verification regarding abatement of FTAN Items 1-28 (Relief Systems)*. The Independent Verifier chosen to verify the pressure relief evaluations shall be furnished with the quarterly reports described in VII.B.5, and he or she shall do each of the following to verify that BP Products is meeting the conditions set forth in VII.B.:

(a) randomly select ten percent (10%) of the relief folders and ten percent (10%) of the systems folders reported by BP to have been completed to determine whether the folders contain the information required by VII.B.1;

(b) randomly select ten percent (10%) of the pressure relief evaluations reported by BP Products to have been completed to determine whether the evaluations are complete, comport with RAGAGEP, and that relief devices and systems that deviate from RAGAGEP are identified and reported as required by VII.B.5;

(c) from the pressure relief evaluations selected pursuant to (b) above, confirm that the individual deficiencies that have been identified for each relief device and system have been listed in the most recent quarterly report pursuant to VII.B.5; that the mitigating actions reported by BP Products for the Potential Hazards as described in Section VI have been completed; and confirm that Permanent Modifications have been installed and commissioned as reported by BP Products pursuant to VII.B.5(h).

*2. Scope of Independent Verification regarding abatement of FTAN Items 29-270*

(a) The Independent Verifier(s) chosen to review the Lifecycle Management of Process Safety Risk abatement shall evaluate whether BP Products is completing a SLMM that is based on the Table of Contents in Exhibit 7 and that the SLMM includes each required element identified in ANSI/ISA S84.00.01.

(b) The Independent Verifier(s) selected to review the LOPA's of Record shall randomly select and review ten percent (10%) of the completed LOPA's of Record to evaluate whether BP Products has applied RAGAGEP in categorizing potential hazards. As part of the review, the Independent Verifier(s) shall randomly select and review documents providing the bases of the LOPA of Record, for example, the generic LOPA's, the Project LOPA's, Unit HAZOP, and other documents, which the Independent Verifier in his or her sole discretion determines to be of value to review. Additionally, the Independent Verifier(s) shall select two LOPA teams to interview and consult regarding the process and the work that was completed.

(c) The Independent Verifier(s) selected to review mitigation of potential hazards identified in the LOPA's of Record shall:

i. randomly select and review ten percent (10%) of the SIS and safety instrumented functions that have been installed and commissioned to evaluate whether the

installation and commissioning comports with RAGAGEP (e.g., development of safety requirement specifications, validation of SIS and safety instrumented functions including functional testing, etc.);

ii. randomly select and review ten percent (10%) of the LOPA's of Record to determine if RAGAGEP has been followed, including the LOPA team's determination of consequence, frequency, credits for individual layers of protection, allocation of risk to appropriate safety functions, etc.;

iii. randomly select and review ten percent (10%) of the LOPA's of Record that require an IPL credit of one or more to evaluate whether a "Deficiency Notification" has been issued pursuant to BP procedures;

iv. from the LOPA's of Record selected pursuant to (iii) above, confirm that each of the potential hazards identified are being addressed as required in Sections VI and VII of this Agreement;

v. from the LOPA's of Record selected pursuant to (iii) above, confirm that each of the potential hazards that require IPL credits of one or more have been listed in the most recent quarterly report pursuant to Section VII.E.4 above.

vi. review one hundred percent (100%) of LOPA's of Record that required an IPL credit of three or more to verify that Interim Measures were implemented, and that any Permanent Modifications reported to have been implemented were implemented; and

vii. review ten (10%) of LOPA's of Record that required an IPL Credit of one or two to verify that Interim Measures were implemented, and that any Permanent Modifications reported to have been implemented were implemented.

IX.

**Certification and Documentation of Abatement**

A. Pursuant to 29 CFR § 1903.19, within ten (10) business days following completion of the abatement required by each paragraph of Section VII above, BP Products shall certify that the abatement is complete and submit documents to OSHA. This Agreement requires that BP Products submit five (5) separate certifications of abatement for the five (5) substantive requirements of Section VII above: (i) pressure relief equipment and systems evaluations (Equipment-Based Validation of Relief Systems), (ii) mitigation of pressure relief potential hazards, (iii) SIS Lifecycle Management Manual, (iv) LOPA's of Record, and (v) mitigation of LOPA of Record potential hazards.

B. The certification and documentation shall be mailed concurrently to OSHA, the Authorized Employee Representative(s) and the designated Independent Verifier where appropriate.

C. Pursuant to 29 CFR 1903.19(g), BP Products shall notify its employees and their authorized representatives at the Refinery of abatement activities required by this Agreement.

D. If BP Products needs an extension of time to complete any abatement activity required by this Agreement, it may file a petition to modify abatement date pursuant to 29 CFR 1903.14a.

**X.**

**Termination of Agreement**

If OSHA determines, that BP Products is not using reasonable, good faith efforts to meet the schedules in Exhibits 2, 6, 8 and 9 or other terms of this Agreement, OSHA may, upon fifteen (15) days written notice to BP Products, terminate this Agreement and take appropriate enforcement action. The serving of notice of early termination is subject to the following limitations:

1. Early termination shall not be exercised earlier than March 2011;
2. Early termination shall not be exercised before and is subject to the dispute resolution provisions of Section XI below;
3. Early termination shall only be exercised in the event of a material violation of Sections V, VI, VII or VIII; and
4. There will be one meeting between senior level managers of the Department of Labor and senior corporate officials of BP Products prior to issuance of the notice of termination.

**XI.**

**Dispute Resolution**

**A. Notice and Thirty-Day Negotiation Period**

If a dispute arises between OSHA and BP Products regarding compliance with this Agreement, the party claiming such a dispute (the "Claimant") shall promptly notify the other party (the "Responding Party") in writing of such dispute ("Notice of Dispute"). The Notice of Dispute will articulate the reasons for the Claimant's contention that a dispute has arisen with sufficient specificity for the Responding Party to evaluate and respond to the Notice of Dispute. The Responding Party will have fifteen (15) business days to produce a written response to the

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Notice of Dispute. If the Claimant is not satisfied with the Responding Party's response, it will notify the Responding Party in writing within fifteen (15) business days, and the parties will thereafter engage in good faith negotiations, including, at a minimum, one face-to-face meeting at the OSHA Houston South Area Office between the Texas City Refinery Business Unit Leader and the OSHA Houston South Office Area Director. The time period for this good-faith attempt to resolve the matter will last no longer than thirty (30) business days following filing of the Notice of Dispute (the "Negotiation Period"). The parties may extend the Negotiation Period by mutual written consent. The written notice, response, and notification of dissatisfaction will be served on employees and their authorized representatives in accordance with the sections below at the time the documents are served on the Claimant and Responding Party. Employees and their authorized representatives shall be invited to participate in the meetings.

**B. Selection of Mediator**

If OSHA and BP Products are unable to resolve the matter during the Negotiation Period, the parties will jointly select a third-party neutral person (the "Mediator") acceptable to both parties to mediate the dispute. Employees and their representatives shall be invited to participate in the mediations. OSHA and BP Products will equally share the costs associated with the retention of the Mediator and other costs associated with the mediation.

**C. Mediation Period**

OSHA and BP Products will engage in mediation for a period not to exceed thirty (30) days after the first meeting with the Mediator (the "Mediation Period"), including at least two mediation sessions with the Mediator. If the parties are unable to reach an agreement before the end of the Mediation Period, they may exercise any rights they have under law or this Agreement, including but not limited to the issuance of failure to abate notices by OSHA.

D. Requirement to Meet Regularly and Act in Good Faith

OSHA and BP Products will meet regularly with the Mediator and otherwise act in good faith throughout the mediation in order to complete it expeditiously.

E. Not a Limitation on the Secretary's Enforcement Rights

This Section XI does not limit the Secretary's right to use, as appropriate, enforcement methods provided by the Act.

**XII.**

**Management Incentives**

Meeting the terms and deadlines set forth in the abatement sections of this Agreement shall be given significant weight in appraising the Texas City Refinery Business Unit Leader's performance and determining his or her compensation, including payment of a bonus.

**XIII.**

**General Provisions**

A. Abatement Monitoring

Subsequent to the date this Agreement is fully executed, BP Products shall permit OSHA, including its contracted experts, to have immediate full access to the workplace at the Refinery for the specific purpose of determining if BP Products is complying and has fully complied with the provisions in this Agreement. BP Products agrees to require no warrants for entry by OSHA or OSHA's experts, and to require no subpoenas for access to documents related to compliance with this Agreement. Any experts retained by OSHA to assist in the monitoring effort shall execute a confidentiality agreement which prohibits such experts from disclosing to third parties any information related to the operation of the Texas City Refinery learned in connection with the monitoring, reviewing of any reports submitted by BP Products under this Agreement, or

reviewing of any other documentation provided by BP Products to OSHA during any on-site inspections OSHA has conducted at the Refinery. OSHA shall provide such confidentiality agreement(s) to BP Products prior to any such expert's entry onto the Refinery premises or review of any such documentation, whichever occurs earlier. Nothing in this Agreement shall be construed as limiting OSHA's authority to conduct any type of inspection authorized by the Act.

**B. Enforcement under Section 11(b) of the Act**

BP Products agrees that the terms of this Agreement shall be enforceable under Section 11(b) of the Act. BP Products agrees that it will not oppose the entry of such an order enforcing this Agreement by the Fifth Circuit U.S. Court of Appeals to which the Secretary of Labor presents this Agreement and supporting documents. Nothing in this Agreement limits BP Products' defenses and arguments in an action for contempt except that BP Products admits that the terms of this Agreement are required abatement. Notwithstanding any other provision in this Section XIII, OSHA may not seek enforcement of this Agreement under Section 11(b) of the Act or any other provision of law without first completing the dispute resolution procedures set forth in Section XI. of this Agreement.

**C. Enforcement Rights**

The Secretary reserves the right to use all appropriate enforcement measures under the Act, including but not limited to citation for violation of the PSM standard.

**D. Reservation of Rights**

On October 29, 2009, OSHA issued to BP Products, concurrently with the issuance of the FTAN, a willful citation with 439 items and a total penalty of \$30,730,000 (the "Willful Citations") (OSHRC Docket No. 09-1788). Both OSHA and BP Products acknowledge that the

Willful Citations will not be affected by this Agreement and that both parties reserve all of their legal rights with respect to enforcing and/or defending the Willful Citations.

E. Non-Admissions

Neither this Settlement Agreement nor BP Products' consent to entry of a final order by the OSHRC pursuant to this Agreement constitutes any admission by BP Products, its parents, subsidiaries, affiliates, representatives, agents, officers, directors, or employees (the "BP Products Parties") of noncompliance with the 2005 Settlement Agreement or violation of the Occupational Safety and Health Act ("OSH Act") or regulations or standards promulgated thereunder. Neither this Settlement Agreement nor the FTAN, related reports or any order entered pursuant to this Agreement (collectively, the "Enforcement Documents") is intended to be offered, used or admitted in evidence against any BP Products Parties in any proceeding or litigation, except for proceedings and matters brought by the United States Government. This does not preclude any BP Products Party from arguing the admissibility or non-admissibility of the Enforcement Documents under applicable rules of evidence in any subsequent proceedings, other than in proceedings brought by the Secretary of Labor to enforce this Agreement. BP Products is entering into this Agreement without any prejudice to the BP Products Parties' rights to raise any defense or argument in any future or pending cases, proceeding, or litigation. The BP Products Parties retain the right to assert in any subsequent action or proceeding that any future existing conditions identical or similar to those alleged in the FTAN do not violate the Occupational Safety and Health Act or any standard promulgated thereunder. By BP Products' entry into this Agreement, the BP Products Parties assert that they do not admit, and in fact specifically deny, the truth of any alleged facts, any of the characterizations of BP Products Parties' alleged conduct or any of the conclusions set forth in the FTAN. The parties

**STIPULATION AND AGREEMENT**  
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acknowledge that the agreements, statements, stipulations, and actions herein are made solely for the purpose of settling this matter without litigation or further expense.

F. Compliance with OSH Act

This Agreement does not change BP Products' obligation to comply with the Occupational Safety and Health Act.

G. Authorized Employee Representative(s)

BP Products certifies that the name and address of the authorized employee representative of affected employees is: James Guajardo, Chairman, United Steelworkers of America, 2327 Texas Avenue, Texas City, Texas 77590-8341. BP Products further certifies that there are no other unions representing affected employees except those set forth above.

H. Service on Authorized Employee Representative(s)

The Secretary certifies that service of the fully executed Settlement Agreement was made on the authorized employee representative(s) on the 12<sup>th</sup> day of August, 2010.

I. Service on Unrepresented Employees

Respondent certifies that a copy of this settlement agreement has been served upon the unrepresented affected employees in the manner set forth in Rule 2200.100 of the Commission's Rules of Procedure, by posting same on the 12<sup>th</sup> day of August, 2010.

J. Costs

Each party agrees to pay its own attorney's fees, costs, and other expenses incurred by such party in connection with any stage of the above-referenced proceeding including, but not limited to, attorney's fees which may be available under the Equal Access to Justice Act, as amended.

K. Expiration

This Agreement shall be effective on the date it is fully executed. The Agreement shall expire March 12, 2012, unless terminated by the Agency as outlined in paragraph X after completion of the dispute resolution process described in paragraph XI or extended by a petition to modify abatement dates that has been approved by OSHA, the OSHRC or the federal courts. The passage of the expiration date shall in no way signify, nor will BP assert, that any abatement actions required under this Agreement need not be fully and timely implemented by BP Products.

L. Force Majeure

BP Products shall not be sanctioned or otherwise held liable for any failure to perform the obligations in connection with any action described in this Agreement if such failure results from any act of God, riot, war, civil unrest, terrorism, hurricane, flood, earthquake, or other cause beyond the reasonable control of BP Products. If BP Products experiences a force majeure event that will affect its ability to complete one or more requirements under this Agreement, BP Products shall notify OSHA within fifteen (15) days after the force majeure event. In such notification BP Products shall identify the requirements under this Agreement affected by that event and the additional time necessary to complete those requirements. BP Products shall be entitled to extend the time necessary to complete the requirements affected by the force majeure event up to the length of time it demonstrates is necessary as a result of that event. OSHA shall reply to BP Products force majeure notification within fifteen (15) days after receipt of that notice. If the parties are unable to reach agreement concerning BP Products request for additional time or other issues specified in its notification, either party may request that the dispute be addressed by the dispute resolution provision in Section XI.

M. Agreement will Bind Successors

The abatement requirements and interim measures imposed on BP Products in this Agreement shall be valid and binding on any successor entity (or entities) in the event of a merger, acquisition or sale of the Texas City Refinery during the term of this Agreement. In the event of a merger, acquisition or sale of the Texas City Refinery, BP Products shall inform the successor or purchaser in writing of the terms of this Agreement, and shall immediately notify OSHA.

N. Construction

The headings in this Agreement are for convenience and are not intended to affect construction or interpretation. The plural includes the singular and the singular includes the plural; "and" and "or" are each used both conjunctively and disjunctively; "any" and "all" each mean "any and all"; "each" and "every" each mean "each and every"; and "including" and "includes" are each "without limitation."

O. Notice of Communication to OSHA

When notice or communication to OSHA is required herein, such notification will be accomplished by notifying all of the following:

Mark Briggs  
Area Director  
US Department of Labor  
Occupational Safety and Health Administration  
17625 El Camino Real, Suite 400  
Houston, TX 77058

Jeff Lewis  
Assistant Regional Administrator for Enforcement Programs  
US Department of Labor  
Occupational Safety and Health Administration, Region VI  
525 S. Griffin Street  
Suite 602  
Dallas, Texas 75202

Should there be a change in the person(s) occupying the above position during the term of this Agreement, OSHA will notify BP Products in writing with the name and address of the new person.

P. Notice or Communication to BP Products

When notice or communication to BP Products is required herein, such notification will be accomplished by notifying all of the following:

Keith M. Casey  
Business Unit Leader  
BP Products North America Inc.  
2401 5th Avenue South  
Texas City, TX 77590

Robert Genovese  
VP US Regulatory Affairs  
BP Products North America Inc.  
150 West Warrenville Road  
Naperville, Illinois 60563

James A. Nolan, Jr.  
BP Legal Department  
BP America, Inc.  
Mail Code 5 West  
4101 Winfield Road  
Warrenville, IL 60555

Should there be a change in the person(s) occupying the above positions during the term of this Agreement, BP Products will notify OSHA in writing with the name and address of the new contact.

Q. Notice or Communications to Authorized Employee Representatives

When notice or communication to the Authorized Employee Representatives is required herein, such notification will be accomplished by notifying all of the following:

James Guajardo  
Chairman  
United Steelworkers of America  
2327 Texas Avenue  
Texas City, TX 77590

Should there be a change in the person(s) occupying the above positions during the term of this Agreement, the Authorized Representative will notify OSHA and BP TCR in writing with the name and address of the new contact.

R. Quarterly and Annual Meetings

BP Products and representatives of OSHA's Houston South Area Office shall conduct face-to-face meetings within thirty (30) days after OSHA's receipt of each quarterly report due under this Agreement to discuss any issues or concerns relating to the abatement obligations or any other ongoing requirements in the Agreement ("quarterly meetings"). In addition, the Parties will meet face-to-face annually with representatives of upper management in attendance, including the VP US Regulatory Affairs identified under Section II.D and the Director Directorate of Enforcement Programs. The USW shall be given notice and offered the opportunity to participate in each of the meetings contemplated by this provision.

S. Consultation with Authorized Employee Representative

The United Steelworkers of America ("USW"), as represented by James Guajardo, elected party status in this matter. The Parties have conferred with the USW and it has raised no objection to the abatement or the reasonableness of any abatement time set forth herein.

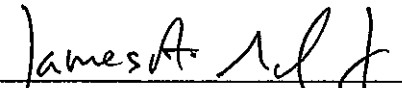
Respectfully Submitted,

BP PRODUCTS NORTH AMERICA INC.

by:

  
STEPHEN R. CORNELL  
President

by:

  
JAMES A. NOLAN, JR.  
Attorney

Signed this 11<sup>th</sup> day of  
August, 2010.

BP Products North America Inc.  
150 West Warrenville Road  
Naperville, Illinois 60563

Signed this 12<sup>th</sup> day of  
August, 2010.

Attorney for Respondent  
BP Products North America Inc.

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August 12, 2010

Respectfully Submitted,

OCCUPATIONAL SAFETY AND HEALTH  
ADMINISTRATION


SECRETARY OF LABOR

M. PATRICIA SMITH  
Solicitor of Labor

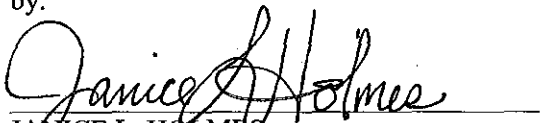
JAMES E. CULP  
Regional Solicitor

MADELEINE T. LE  
Counsel for Occupational Safety & Health

by:

  
RICHARD E. FAIRFAX  
Deputy Assistant Secretary  
MARK BRIGGS  
Area Director, OSHA Houston South Area  
Office

by:

  
JANICE L. HOLMES  
Deputy Regional Solicitor  
BRIAN L. HURT  
Trial Attorney

Signed this 11<sup>TH</sup> day of  
August, 2010.

Signed this 12<sup>th</sup> day of  
August, 2010.

OSHA Houston South Area Office  
17625 El Camino Real  
Suite 400  
Houston, Texas 77058

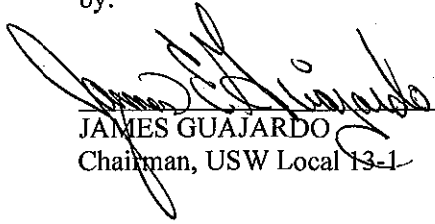
Attorneys for Complainant  
U. S. Department of Labor  
Office of the Solicitor  
525 Griffin Street, Suite 501  
Dallas, Texas 75202

**STIPULATION AND AGREEMENT**  
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Respectfully Submitted,

UNITED STEELWORKERS OF AMERICA

by:



\_\_\_\_\_

JAMES GUAJARDO  
Chairman, USW Local 13-1

Signed this 12 day of

August, 2010.

United Steelworkers of America  
USW Local 13-1  
2327 Texas Avenue  
Texas City, Texas 77590

NOTICE TO AFFECTED EMPLOYEES NOT  
REPRESENTED BY A LABOR ORGANIZATION

EACH AFFECTED EMPLOYEE WHO IS NOT REPRESENTED BY A LABOR ORGANIZATION HEREBY IS GIVEN NOTICE THAT ANY OBJECTIONS TO THE ENTRY OF AN ORDER APPROVING THIS SETTLEMENT AGREEMENT MUST BE FILED WITHIN TEN (10) DAYS FROM THE DATE THAT THIS SETTLEMENT AGREEMENT IS POSTED. SUCH OBJECTIONS MUST BE SET FORTH IN WRITING AND MAILED TO STEPHEN J. SIMKO, JR., ADMINISTRATIVE LAW JUDGE, OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION, 1924 BUILDING – ROOM 2R90, 100 ALABAMA STREET, S.W., ATLANTA, GEORGIA 30303-3104, WITH COPIES TO COMPLAINANT AND RESPONDENT.

NOTICE TO AUTHORIZED EMPLOYEE REPRESENTATIVES  
OF AFFECTED EMPLOYEES

EACH AUTHORIZED EMPLOYEE REPRESENTATIVE OF AFFECTED EMPLOYEES IS HEREBY GIVEN NOTICE THAT ANY OBJECTION TO THE ENTRY OF AN ORDER TERMINATING THIS LITIGATION MUST BE FILED WITHIN TEN (10) DAYS OF THE DATE OF SERVICE OF THE SETTLEMENT AGREEMENT ON THEM, BY SETTING FORTH SUCH OBJECTIONS IN WRITING AND MAILING THEM TO STEPHEN J. SIMKO, JR., ADMINISTRATIVE LAW JUDGE, OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION, 1924 BUILDING – ROOM 2R90, 100 ALABAMA STREET, S.W., ATLANTA, GEORGIA 30303-3104, WITH COPIES TO COMPLAINANT AND RESPONDENT.

8/12/2010

**Exhibit 1**

**2010 Agreement between OSHA and BP Products**

**Completed Abatement under the 2005 Settlement Agreement**

The Parties agree that BP Products completed approximately 660 abatement actions imposed by the 2005 Settlement Agreement, including:

- (1) Shut down and decommissioned the Isom unit to abate all hazardous conditions that contributed to the Isom incident;
- (2) Abated more than 300 process safety, electrical, and other deficiencies alleged to exist at the Texas City Refinery;
- (3) Expanded safety and health training at the Texas City Refinery;
- (4) Retained, with the concurrence of OSHA, a qualified expert in the PSM field ("PSM Expert") to perform a comprehensive PSM systems audit, issue an audit report, conduct three semi-annual follow-up progress assessments, and issue three semi-annual progress reports;
- (5) The PSM Expert issued 228 recommendations; BP Products accepted 220 of the recommendations Prepared and submitted to OSHA a statement of action to be taken on the 220 recommendations and submitted follow-up progress reports and implemented the recommendations (though the FTAN alleges that 4 recommendations related to safety instrumented systems were not implemented);
- (6) BP Products retained an independent expert to conduct an audit of the adequacy of the methodology and engineering analysis the Refinery applied to its hydrocarbon pressure relief systems by examining these issues at Pipestill 3B and the Ultracracker. BP Products submitted a report of the findings and recommendations to OSHA and has implemented all 100 of the recommendations (though the FTAN alleges the audit should have been extended to the remaining process units at the Refinery).
- (7) Retained, with the concurrence of OSHA, a qualified expert in the organizational communication, behavior, and analysis field ("Organizational Expert") to assess communication within the Texas City Refinery with respect to safety and safety commitment and to issue an interim and final report;
- (8) Prepared and submitted to OSHA a statement of action to be taken on the recommendations set forth in the Organizational Expert's interim and final reports and implemented the Organizational Expert's feasible recommendations;

8/12/2010

**Exhibit 1 Continued**

- (9) Submitted occupational injury and illness logs to OSHA semi-annually;
- (10) Investigated and notified OSHA of any accident or injury involving PSM and/or Lockout-Tagout that resulted in one or more days of lost work-time; and
- (11) Made a timely settlement payment of \$21,361,500.

8/12/2010

## Exhibit 2

## Equipment-Based Relief System Evaluations: Completion Schedule

Crude Distillation		Date
PS3A	Crude Distillation Unit A	February 12, 2012
PS3B	Crude Distillation Unit B	March 31, 2011
Resid Destruction		
RHU Complex		
RHU 200	Resid Hydroprocessing Unit 200	February 12, 2012
RHU 300	Resid Hydroprocessing Unit 300	February 12, 2012
RHU 400	Resid Hydroprocessing Unit 400	February 12, 2012
RHU 500	Resid Hydroprocessing Unit 500	February 12, 2012
RHU 600	Resid Hydroprocessing Unit 600	February 12, 2012
Coker Complex		
Coker B	Coke Production Unit B	September 30, 2011
Coker C	Coke Production Unit C	September 30, 2011
Coker Scrubber		
RDU	Resid Deasphalting Unit	February 12, 2012
Cat Cracking		
FCCU 1	Fluid Catalytic Cracker 1	September 30, 2011
FCCU 3	Fluid Catalytic Cracker 3	February 12, 2012
FCCU SHU		
Reforming		
UU3	Naphtha Reformer Number 3	February 12, 2012
UU4	Naphtha Reformer Number 4	September 30, 2011
Alkylation		
Alky Treaters	PP and BB Treaters	March 31, 2011
Alky Splitters		March 31, 2011
Alky SHU	Alkylation Selective Hydrosomerization Unit	March 31, 2011
Alky 3	HF Alkylation Unit	February 12, 2012
Hydrotreating		
ULC	Distillate Hydrocracker	March 31, 2011
CFHU	Cat Feed (Gas Oil) Hydrotreater	February 12, 2012
DDU Complex		February 12, 2012
NDU	Naptha Desulfurization Unit	February 12, 2012
HRU	Hydrogen Recovery Unit	February 12, 2012
Aromatics		
ARU A	Aromatics Sulfolane Extraction Unit A	February 12, 2012
ARU B	Aromatics Sulfolane Extraction Unit B	February 12, 2012
AU2	Mobil Selective Toluene Disproportionation Unit	February 12, 2012
SRU Complex		
Amine Units		
A Amine	MEA Regeneration A	February 12, 2012
B Amine	MEA Regeneration B	February 12, 2012
C Amine	MEA Regeneration C	February 12, 2012
D Amine	MEA Regeneration D	February 12, 2012
Sulfur Units		
SRU A	Sulfur Recovery Unit A	February 12, 2012
SRU B	Sulfur Recovery Unit B	February 12, 2012
SRU C	Sulfur Recovery Unit C	February 12, 2012
SRU D	Sulfur Recovery Unit D	February 12, 2012
SCOT Units		
C SCOT	SCOT Tail Gas Treating Unit C	February 12, 2012
D SCOT	SCOT Tail Gas Treating Unit D	February 12, 2012
Incinerators		
C-Incinerator	Incineration Facility C	February 12, 2012
D-Incinerator	Incineration Facility D	February 12, 2012

8/12/2010

**Exhibit 3**  
**SUMMARY OF EQUIPMENT-BASED REVALIDATION**  
**OF THE INSIDE UNIT BATTERY LIMIT (ISBL) PROCESS RELIEF SYSTEMS**

This Exhibit 3 describes the equipment based revalidation process BP Products will implement to evaluate all of its process relief systems inside unit battery limits.

1. BP Products will collect and ensure the accuracy of key information required to conduct the relief systems revalidation analysis. That information will include the following:
  - Heat and material balances-This includes the physical properties of the fluids in the system, the rate of fluid movement within the system, temperatures, pressures, fluid properties, and whether the material is a vapor, gas, liquid, or two phase.
  - Relief device information such as the relief device set points, blowdown, coefficients, type, manufacturer, model, orifice area, capacity, test pressure, and discharge location including whether it discharges to the atmosphere or to a flare.
  - Piping and instrumentation diagrams (P&IDs).
  - Equipment information such as the pressure vessels protected by the relief device, pressure vessel metallurgy, the applicable code to which the pressure vessel was constructed, maximum allowable working pressure or design pressure, and vessel dimensions.
  - Other data such as the piping used in the relief system, piping metallurgy, inlet and outlet size, and location of block valves within the system.
  - Process flow diagrams (PFDs) or sketch.
  - Operating conditions.
  - Piping sketches.
  - Field verification of data identified above, where needed.
2. Conduct or confirm which pressure relief scenarios are credible within the relevant relief system. This is accomplished by reviewing the 21 scenarios defined in BP Products's engineering practices. This review identifies the reasons and causes of the overpressure. The rationale for inclusion or exclusion of these 21 scenarios will be documented in the associated relief device and system folders. Engineering design calculations are then performed to determine the adequacy of overpressure protection for all applicable scenarios.
3. Conduct or confirm the adequacy of flare and effluent system according to BP GP 44-80 such as the hydraulic capacity of the flare header piping, the flare knockout drum, and radiation from the flare tip. This analysis will be done for various relief scenarios, such as loss of power and loss of cooling. The results of these analyses are documented in a clear and consistent format and made readily accessible.
4. Identify all potential hazards of a device relieving to atmosphere as required by API 521.
5. The following relief system calculations are typically made using the relevant equations from API 520 and 521 and BP Products engineering practices:
  - Required flow rate based on applicable overpressure scenarios and the capacity of the relief device for each of the scenarios.
  - Relief stream conditions used for sizing the relief devices and performing any required hydraulic calculations.
  - Hydraulic loads on the relief system during various release scenarios.
  - Proper relief device sizing.

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**Exhibit 3 Continued**

- Inlet and outlet piping hydraulic calculations to determine the inlet and outlet pressure drop.
  - Reaction forces of outlet piping when applicable.
  - Acoustic induced vibration of piping when applicable.
  - Flare header analysis and hydraulic calculations based on global scenarios.
  - Flare header knockout drum sizing calculations.
  - Determination of radiation levels from any flare tips.
  - Fluid properties generation using process simulations.
6. Using the information collected in Sections 1-3 and the calculations conducted in Section 5 of this exhibit, BP Products will identify, assess, validate, rank, and take interim mitigation steps to address gaps found during the revalidation process.
  7. Key documentation developed during the activities described in Sections 1-5 of this exhibit will be included in the appropriate relief system folder. The Refinery maintains its relief system design documentation as follows: a) Relief Device Folder, b) Protected System Folder, and c) Effluent Book.

8/12/2010

**Exhibit 3 Continued**

Table 1 Equipment not included in the Relief System – Equipment-Based Revalidation

Excluded Process Equipment	Excluded Systems
<ul style="list-style-type: none"> <li>• Outside Boundary Limit (OSBL) equipment</li> <li>• Analyzer equipment</li> <li>• Maintenance equipment</li> <li>• Tank vents Inside Boundary Limits (ISBL)</li> <li>• RV's on condensing turbine surface condensers</li> <li>• Internal relief valves on pumps</li> <li>• Sentinel valves</li> </ul> <p>Treatment chemicals and associated packaged equipment, storage facilities, and supply equipment used for:</p> <ul style="list-style-type: none"> <li>• Antifoulants</li> <li>• Dispersants</li> <li>• Coagulants</li> <li>• Anti-static</li> <li>• Neutralizers</li> <li>• Inhibitors</li> <li>• Filmers</li> <li>• Dehazers</li> </ul>	<ul style="list-style-type: none"> <li>• Docks</li> <li>• Idled Facilities</li> <li>• Waste Water Treatment Plant</li> <li>• Tank farms</li> <li>• Remote storage</li> <li>• Oil mist systems</li> <li>• Instrument air systems</li> <li>• Freon refrigeration systems (ASHEAE 15)</li> <li>• Steam systems<sup>1</sup></li> <li>• Cooling water systems<sup>1</sup></li> <li>• Condensate/BFW</li> <li>• Thermal relief valves<sup>2</sup></li> <li>• Oil Re-claimers</li> </ul> <p>Ancillary Utilities:</p> <ul style="list-style-type: none"> <li>• Air delivery (plant air)</li> <li>• Nitrogen</li> <li>• Potable water</li> <li>• Service water</li> <li>• Fire water</li> <li>• Demin Water</li> </ul> <p>Lubrication, Shaft-sealing and Oil-control systems:</p> <ul style="list-style-type: none"> <li>• seal oil systems</li> <li>• lube oil systems</li> <li>• gland oil</li> <li>• flushing oil</li> <li>• control oil</li> <li>• balance gas</li> <li>• buffer gas</li> <li>• sealing steam</li> </ul>

Note 1: The process side of exchangers that utilize these utilities shall be analyzed for relief issues (e.g. tube rupture case) that would put hydrocarbons into the utility system.

Note 2: Thermal relief valves are maximum 1x2 relief valves with D orifice; installed only to protect against fluid thermal expansion in piping/equipment that is liquid full and isolated. Typically these are in OSBL areas; although there may be some in process areas.

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**Exhibit 4**  
**CONTENTS OF RELIEF DEVICE FOLDER**

This Exhibit 4 describes the contents of the Refinery's relief device folders.

1. Relief device cover sheet- This summarizes key parameters about the relief device, its design basis, and the analyses performed that are described in Exhibit 3.
2. Relief device datasheet- This summarizes relief device specifications and design basis such as the controlling scenario to which it may potentially be subjected and the relief device size, orifice size, set pressure, area, model, make, and process information required for the controlling scenario.
3. Scenarios summary sheet- This summarizes the process information and relief loads for all applicable overpressure scenarios. This information is a summary from the detailed calculations described in Exhibit 3.
4. A field sketch of the relief device inlet and outlet piping, including inlet and outlet equivalent length calculations.
5. Vendor information for the relief device, as applicable.

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**Exhibit 5**  
**CONTENTS OF PROTECTED SYSTEM FOLDER**

A protected system as that term is used by the Refinery means the smallest related group of relief valves, piping, and process vessels that can be completely isolated from other systems by closing various isolation valves. This group of relief valves, piping, and process vessels only includes such equipment that would necessarily be subject to the same overpressure event at the same time as a result of the process and relief system designs. The protected system typically is part of a Process Unit, and is associated with an effluent (discharge) system.

The Refinery maintains its overpressure protection documentation as follows: a) Relief Device Folder, b) Protected System Folder, and c) Effluent Book.

This Exhibit 5 describes the contents of the Refinery's protected system folders.

1. Protected system executive summary-This summarizes the equipment and piping in the pressurized relief system including unique pressure vessel and piping identification numbers, and identification of the engineering drawings (P&ID) on which they are located, the results of the overpressure protection system design, and list of potential design issues, if applicable.
2. Overpressure contingency checklist-This will list each primary cause of overpressure relying on the 21 possible scenarios from BP's engineering practices, and an indication of whether or not the cause of overpressure was found to apply to the pressurized system. Each cause of overpressure should provide the rationale used for the determination of whether or not the cause of overpressure was found to apply.
3. Engineering calculation details- This documentation includes all the relief device sizing and hydraulic detailed calculations for all applicable overpressure scenarios. It is derived from the calculation software (MathCAD, or equivalent) or an equivalent calculation software used by the Refinery.
4. Process simulation printout for fluid properties (HYSYS, for example).
5. Marked up Piping and Instrumentation Diagrams (PIDs) and Process Flow Diagrams (PFDs) / sketch for the protected system.
6. Protected equipment specification or data sheets, pump curves, and any auxiliary information relevant to the protected system under consideration that was used for the analyses described in this exhibit.
7. Identification of any credit taken for existing protective measures in conducting the analyses referenced in this exhibit for the prevention of various release scenarios. This may include protective measures such as unit shutdown procedures, alternative relief paths, and safety instrumented systems (for flare header analysis only).

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**Exhibit 6**  
**SIS Lifecycle Management System**  
**Completion Schedule**

Issue life cycle manual and supporting procedures	March 31, 2011
Engage accountable people in policy implementation	March 31, 2011
Ensure tools and detailed work processes are in place	March 31, 2011
Train on terms, policy and process	September 30, 2011
Meet policy requirements	September 30, 2011
Meet policy requirements retroactively on existing SIS	February 12, 2012
Internal audit of meeting policy requirements	February 12, 2012

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**Exhibit 7**  
**SIS Lifecycle Manual Table of Contents**

Table of Contents .....

Introduction.....

2. Normative references .....

3. Terms and definitions .....

4. Symbols and abbreviations .....

5. Safety instrumented system program implementation .....

5.1. Currently installed safety instrumented functions .....

5.2. Deviation process .....

5.3. Safety Action Item List .....

6. Accountabilities .....

7. Competencies .....

8. Life cycle description .....

8.1. Workflow drawing and Document map .....

9. Life cycle elements .....

9.1. General .....

9.2. Projects .....

9.3. Management of functional safety .....

Annex A.....

A.1. Accountability chart .....

A.2. Texas City Refinery Safety Lifecycle Management Overview .....

A.3. BP TCR SIS Policy and Procedure Roadmap.....

A.4. CVP to SIS Lifecycle Document Reference .....

Bibliography.....

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**Exhibit 8**  
LOPA of Record: Completion Schedule

Crude Distillation		Date
PS3A	Crude Distillation Unit A	March 31, 2011
PS3B	Crude Distillation Unit B	March 31, 2011
Resid Destruction		
RHU Complex		
RHU 200	Resid Hydroprocessing Unit 200	March 31, 2011
RHU 300	Resid Hydroprocessing Unit 300	March 31, 2011
RHU 400	Resid Hydroprocessing Unit 400	March 31, 2011
RHU 500	Resid Hydroprocessing Unit 500	March 31, 2011
RHU 600	Resid Hydroprocessing Unit 600	March 31, 2011
Coker Complex		
Coker B	Coke Production Unit B	March 31, 2011
Coker C	Coke Production Unit C	March 31, 2011
Coker Scrubber		March 31, 2011
RDU	Resid Deasphalting Unit	March 31, 2011
Cat Cracking		
FCCU 1	Fluid Catalytic Cracker 1	March 31, 2011
FCCU 3	Fluid Catalytic Cracker 3	March 31, 2011
FCCU SHU		March 31, 2011
Reforming		
UU3	Naphtha Reformer Number 3	March 31, 2011
UU4	Naphtha Reformer Number 4	March 31, 2011
Alkylation		
Alky Treaters	PP and BB Treaters	March 31, 2011
Alky Splitters		March 31, 2011
Alky SHU	Alkylation Selective Hydroisomerization Unit	March 31, 2011
Alky 3	HF Alkylation Unit	March 31, 2011
Hydrotreating		
ULC	Distillate Hydrocracker	March 31, 2011
CFHU	Cat Feed (Gas Oil) Hydrotreater	March 31, 2011
DDU Complex		March 31, 2011
NDU	Naptha Desulfurization Unit	September 30, 2011
HRU	Hydrogen Recovery Unit	September 30, 2011
Aromatics		
ARU A	Aromatics Sulfolane Extraction Unit A	September 30, 2011
ARU B	Aromatics Sulfolane Extraction Unit B	September 30, 2011
AU2	Mobil Selective Toluene Disproportionation Unit	March 31, 2011
SRU Complex		
Amine Units		
A Amine	MEA Regeneration A	March 31, 2011
B Amine	MEA Regeneration B	March 31, 2011
C Amine	MEA Regeneration C	March 31, 2011
D Amine	MEA Regeneration D	March 31, 2011
Sulfur Units		
SRU A	Sulfur Recovery Unit A	March 31, 2011
SRU B	Sulfur Recovery Unit B	March 31, 2011
SRU C	Sulfur Recovery Unit C	March 31, 2011
SRU D	Sulfur Recovery Unit D	March 31, 2011
SCOT Units		
C SCOT	SCOT Tail Gas Treating Unit C	March 31, 2011
D SCOT	SCOT Tail Gas Treating Unit D	March 31, 2011
Incinerators		
C-Incinerator	Incineration Facility C	March 31, 2011
D-Incinerator	Incineration Facility D	March 31, 2011

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**Exhibit 9****Safety Instrumented Systems: Pre-February 12, 2012 Completion Schedule**

Crude Distillation		Date
PS3A	Crude Distillation Unit A	
PS3B	Crude Distillation Unit B	
Resid Destruction		
RHU Complex		
RHU 200	Resid Hydroprocessing Unit 200	
RHU 300	Resid Hydroprocessing Unit 300	
RHU 400	Resid Hydroprocessing Unit 400	
RHU 500	Resid Hydroprocessing Unit 500	
RHU 600	Resid Hydroprocessing Unit 600	
Coker Complex		
Coker B	Coke Production Unit B	
Coker C	Coke Production Unit C	
Coker Scrubber		
RDU	Resid Deasphalting Unit	
Cat Cracking		
FCCU 1	Fluid Catalytic Cracker 1	
FCCU 3	Fluid Catalytic Cracker 3	
FCCU SHU		
Reforming		
UU3	Naphtha Reformer Number 3	
UU4	Naphtha Reformer Number 4	
Alkylation		
Alky Treaters	PP and BB Treaters	
Alky Splitters		
Alky SHU	Alkylation Selective Hydrosomerization Unit	
Alky 3	HF Alkylation Unit	
Hydrotreating		
ULC	Distillate Hydrocracker	February 12, 2012
CFHU	Cat Feed (Gas Oil) Hydrotreater	March 31, 2011
DDU Complex		
NDU	Naptha Desulfurization Unit	
HRU	Hydrogen Recovery Unit	
Aromatics		
ARU A	Aromatics Sulfolane Extraction Unit A	
ARU B	Aromatics Sulfolane Extraction Unit B	
AU2	Mobil Selective Toluene Disproportionation Unit	
SRU Complex		
Amine Units		
A Amine	MEA Regeneration A	March 31, 2011
B Amine	MEA Regeneration B	March 31, 2011
C Amine	MEA Regeneration C	March 31, 2011
D Amine	MEA Regeneration D	March 31, 2011
Sulfur Units		
SRU A	Sulfur Recovery Unit A	February 12, 2012
SRU B	Sulfur Recovery Unit B	February 12, 2012
SRU C	Sulfur Recovery Unit C	February 12, 2012
SRU D	Sulfur Recovery Unit D	March 31, 2011
SCOT Units		
C SCOT	SCOT Tail Gas Treating Unit C	February 12, 2012
D SCOT	SCOT Tail Gas Treating Unit D	March 31, 2011
Incinerators		
C-Incinerator	Incineration Facility C	March 31, 2011
D-Incinerator	Incineration Facility D	March 31, 2011

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**Exhibit 10****Safety Instrumented Systems: Post-February 12, 2012 Completion Schedule**

Crude Distillation		Date
PS3A	Crude Distillation Unit A	March 31, 2016
PS3B	Crude Distillation Unit B	March 31, 2014
Resid Destruction		
RHU Complex		
<i>RHU 200</i>	Resid Hydroprocessing Unit 200	March 31, 2014
<i>RHU 300</i>	Resid Hydroprocessing Unit 300	March 31, 2014
<i>RHU 400</i>	Resid Hydroprocessing Unit 400	March 31, 2014
<i>RHU 500</i>	Resid Hydroprocessing Unit 500	March 31, 2014
<i>RHU 600</i>	Resid Hydroprocessing Unit 600	March 31, 2014
Coker Complex		
<i>Coker B</i>	Coke Production Unit B	December 31, 2016
<i>Coker C</i>	Coke Production Unit C	December 31, 2016
<i>Coker Scrubber</i>		December 31, 2016
RDU	Resid Deasphalting Unit	December 31, 2016
Cat Cracking		
<i>FCCU 1</i>	Fluid Catalytic Cracker 1	March 31, 2015
<i>FCCU 3</i>	Fluid Catalytic Cracker 3	March 31, 2013
<i>FCCU SHU</i>		March 31, 2015
Reforming		
<i>UU3</i>	Naphtha Reformer Number 3	March 31, 2014
<i>UU4</i>	Naphtha Reformer Number 4	March 31, 2016
Alkylation		
<i>Alky Treaters</i>	PP and BB Treaters	March 31, 2015
<i>Alky Splitters</i>		March 31, 2015
<i>Alky SHU</i>	Alkylation Selective Hydroisomerization Unit	March 31, 2015
<i>Alky 3</i>	HF Alkylation Unit	March 31, 2013
Hydrotreating		
<i>ULC</i>	Distillate Hydrocracker	
<i>CFHU</i>	Cat Feed (Gas Oil) Hydrotreater	
DDU Complex		December 31, 2016
<i>NDU</i>	Naptha Desulfurization Unit	March 31, 2016
HRU	Hydrogen Recovery Unit	December 31, 2016
Aromatics		
<i>ARU A</i>	Aromatics Sulfolane Extraction Unit A	March 31, 2016
<i>ARU B</i>	Aromatics Sulfolane Extraction Unit B	December 31, 2016
<i>AU2</i>	Mobil Selective Toluene Disproportionation Unit	December 31, 2016
SRU Complex		
Amine Units		
<i>A Amine</i>	MEA Regeneration A	
<i>B Amine</i>	MEA Regeneration B	
<i>C Amine</i>	MEA Regeneration C	
<i>D Amine</i>	MEA Regeneration D	
Sulfur Units		
<i>SRU A</i>	Sulfur Recovery Unit A	
<i>SRU B</i>	Sulfur Recovery Unit B	
<i>SRU C</i>	Sulfur Recovery Unit C	
<i>SRU D</i>	Sulfur Recovery Unit D	
SCOT Units		
<i>C SCOT</i>	SCOT Tail Gas Treating Unit C	
<i>D SCOT</i>	SCOT Tail Gas Treating Unit D	
Incinerators		
<i>C-Incinerator</i>	Incineration Facility C	
<i>D-Incinerator</i>	Incineration Facility D	