State of Ohio Environmental Protection Agency

Northwest District Office
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Bob Taft
Governor

Certified Mail

December 20, 2002

Mr. Joseph P. Sontchi
Environmental Business Manager
BP - Toledo Refinery
P.O. Box 696
Toledo, Ohio 43697-0696

Re: Hazardous Waste Permit Modification
Class 1A
Approval
BP Products North America, Inc.
OHD005057542 / 03-48-0411

Dear Mr. Sontchi:

On October 21, 2002, Ohio EPA received a request for a Class 1A (Class 1 requiring prior approval) hazardous waste permit modification (tracking number - 021021-1A-1) from BP Products North America Inc.-Toledo Refinery . With this letter, Ohio EPA approves the above referenced Class 1A modification submitted pursuant to Ohio Administrative Code Rule 3745-50-51.

FOR APPROVAL
The following modification has been made to your May 23, 2002, Ohio Hazardous Waste Facility Installation and Operation Permit. Also, the records of Ohio EPA have been changed accordingly:

BP Products North America Inc. has modified their revised Uppermost Aquifer Ground-~~Water Detection Monitoring Plan (UAGWDMP) as required by permit condition F.7(g).~~

Attached is a copy of the applicable permit application and condition revisions. These have been included to ensure that all involved parties have written confirmation of the changes*. If you have any questions concerning this action, please contact Wendy Miller at the Ohio EPA's Northwest District Office.

*Also, in accordance with Ohio Administrative Code Rule 3745-50-51(D)(1)(a)(ii), BP - Toledo Refinery shall send a notice within 90 days of an approved Class 1A Modification to all persons on the Agency mailing list. An updated mailing list can be obtained by contacting Pamela Allen at (614) 644-2980, or by e-mail at pamela.allen@epa.state.oh.us.

Sincerely,

Edwin J. Hammett
District Chief

WAM/lb

cc: Pamela Allen, Manager, ITTSS, DHWM, CO
Jeremy Carroll, Supervisor, Engineering Unit, DHWM, CO
Wendy Miller, DHWM, NWDO
Gary Deutschman, DHWM, NWDO
Shannon Nabors, DHWM, NWDO
NWDO File

MODULE F - GROUND WATER DETECTION MONITORING

F.1. Module Highlights

This module addresses the uppermost aquifer ground water detection monitoring program associated with the nine hazardous waste management units (HWMUs) at the BP Oil Company - Toledo, Ohio Refinery. They consist of five land treatment units: 2, 3, 4, 5 and 6 and four surface impoundments: Jake's Lake, Main Pond, Auxiliary Pond and North Stormwater Pond, also known as North Pond. Several of the units have been grouped together due to their close proximity to each other and are named as follows: 1) Land Treatment Units (LTU) 4, 5 and 6 Waste Management Area , and 2) North Pond/ Wastewater Treatment Plant (WWTP) Waste Management Area, which is comprised of the North Pond, Main Pond and Auxiliary Pond. The other units are denoted as discrete waste management areas. Land Treatment Units (LTU) 2 and 3 have been certified closed as landfills. The other units are still undergoing closure. The units have been monitored under the Interim Status regulations OAC Rule 3745-65-90 through 94 and Consent Agreement and Final Order signed by the Administrator of Region V, US EPA on July 10, 1985.

The Permittee's ground water monitoring system consists of ten monitoring wells which are screened in the Bedrock Zone, which is comprised of Silurian Age Lockport Formation Dolomite. This zone is considered to be the uppermost aquifer. The monitoring wells include two background wells[1]: M-15 and M-16, and eight downgradient wells: M-8, M-9, M-10, M-11, M-12A, M-13, M-14, and M-17.

F.2. Well Location, Installation and Construction
OAC Rule 3745-54-97

The Permittee shall install and maintain a ground water monitoring system as specified below: [OAC Rule 3745-54-97]

(a) The Permittee shall install and maintain, as part of a Ground Water Detection Monitoring System complying with OAC Rule 3745-54-97(A) and (B), the ground water monitoring wells on the map in Figure 4 presented in the document entitled "Uppermost Aquifer Ground-Water Detection Monitoring Plan, BP Oil Company, Toledo, Ohio Refinery", Eagon & Associates, Inc., September 23, 1999 (which shall also be known as the UAGWDMP

throughout the rest of this permit) and in conformance with the following list.

Background Wells[1]	Point of Compliance Wells
M-15 M-16	M-8 M-9 M-10 M-11 M-12A M-13 M-14 M-17
1 - The flow direction of ground water in the bedrock is controlled by the on-site pumping of process wells. Flow is in a southwest to west direction during the pumping season (generally April to September; sometimes continuing through November). During this period, the background monitoring wells M-15 and M-16 are upgradient. A determination of flow direction in the bedrock is not possible during non-pumping months as the water levels vary only slightly throughout the aquifer.	

The ground water monitoring system must: yield samples in upgradient wells that represent the quality of the background ground water unaffected by leakage from any regulated unit(s), and in downgradient wells, yield samples that represent the quality of water passing the point of compliance. The number and location of monitoring wells must be sufficient to identify and define all logical release pathways to the uppermost aquifer from the regulated units based on site-specific hydrogeologic characterization.

(b) The Permittee shall maintain the monitoring wells identified in Permit Condition F.2(a), in accordance with the detailed plans and specifications presented in the UAGWDMP. This document is hereby incorporated into the approved permit application.

~~(c) The Permittee shall provide written notification to the Director and to the Director's Ohio EPA Northwest District Office designee of the necessity to remove or replace any well in the monitoring program at least forty-five (45) days prior to such removal or replacement. Following Ohio EPA approval, the Permittee may perform the action and modify this Permit in accordance with Permit Condition F.2(f).~~

c) The Permittee shall remove or replace any monitoring well identified in Permit Condition F.2(a) in accordance with the Appendix to OAC Rule 3745-50-51 permit modification process. Each change must be accompanied by a revised map as specified on Figure 4 of the UAGWDMP for Permit Condition F.2(a).

(d) All wells removed or replaced in accordance with Permit Condition F.2(c) shall be plugged and abandoned in accordance with the document entitled "State of Ohio Technical Guidance for Sealing Unused Wells" (State Coordinating Committee on Ground Water, 1996). Well plugging and abandonment methods, certification and justification shall be submitted to the Director within thirty (30) days from the date the wells are removed from the monitoring program. Within 30 days of completion of the installation of any new monitoring well(s), the Permittee will record (with as-built drawings) the total depth of the well(s), the surveyed elevation of the top of the well casing, ground-surface and/or apron elevation, and the protective casing elevation.

(e) Whenever any of the wells specified in Permit Condition F.2(a) are replaced for any reason, the Permittee must demonstrate to Ohio EPA ~~by quarterly monitoring within a two-year period of the date of replacement that the ground water chemistry at the replacement well is statistically comparable to that of the original.~~ that the ground water quality at the replacement well meets the criteria in Permit Condition F.2(a) within a two year period of the date of replacement using means appropriate to the reason for replacement.

~~(f) Abandonment and replacement of a network well will require a Class 1 permit modification. Changes in the number, location, depth or design of upgradient or downgradient well(s) of the network will require a Class 2 permit modification. Each of these types of changes must be accompanied by a revised map (Figure 4 of the UAGWDMP) for Permit Condition F.2(a).~~

F.3. Indicator Parameters and Monitoring Constituents
OAC Rule 3745-54-98

(a) The Permittee shall monitor all wells listed in Permit Condition F.2(a) for the following parameters and constituents: [OAC Rule 3745-54-98(A)]

Parameter or Constituent	Established Background Concentrations Milligrams per liter (mg/l)
Antimony	TBD
Arsenic	TBD
Barium	TBD
Beryllium	TBD
Cadmium	TBD
Chromium	TBD
Cobalt	TBD
Lead	TBD
Mercury	TBD
Nickel	TBD
Selenium	TBD
Vanadium	TBD
Benzene	0.001
Carbon disulfide	0.001
Chlorobenzene	0.001
Chloroform	0.001
1,2-Dichloroethane	0.001
1,4-Dioxane	0.050
Ethyl benzene	0.001
Ethylene dibromide	~~0.001~~ 0.00001
Methylethyl ketone (2-butanone)	0.010
Styrene	0.001
Toluene	0.001
Xylene	0.001
Benzo(a)pyrene[1]	0.0002
1-Methyl naphthalene[1]	0.010
naphthalene[1]	0.010
Phenanthrene[1]	0.010
Pyrene[1]	0.010

Parameter or Constituent	Established Background Concentrations Milligrams per liter (mg/l)
TBD - To be determined upon the collection of an adequate amount of background data 1 - Samples will only be collected and analyzed for these semivolatile organic compounds (SVOCs) on an annual basis. The volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) are presently being analyzed for background concentrations. The listed established background concentrations for the VOCs and SVOCs are the anticipated reporting limits [equivalent to practical quantitation limits (PQLs)] for these compounds based on U.S. EPA methods 8260B, 8011, 8270C and 8270C SIM method detection limits (MDLs). ~~All Background Concentrations shall be below Maximum Contaminant Levels (MCLs).~~	

In addition to the indicator parameters listed above, the Permittee shall sample annually for the parameters listed in Table 6 of the UAGWDMP. If any of the semi-volatile organic compounds which are not on the indicator parameter list, but which are in Table 6 are detected at the annual sampling event, then they will be added to the indicator parameter list if: 1) the detection is confirmed by resampling; and 2) if it cannot be demonstrated that the compound(s) are attributable to a source(s) other than the regulated unit(s). In addition, upon the above stated confirmation and if it cannot be demonstrated that the compound(s) are attributable to a source(s) other than the regulated unit(s), then the Permittee will have determined statistically significant evidence of contamination per Condition F.7(d) Monitoring Program and Data Evaluation [OAC Rule 3745-54-98(F)(2)] and shall fulfill the requirements as stated in Condition F.10 Special Requirements if Significant Increases Occur in Values for Parameters or Constituents [OAC Rule 3745-54-98(G)].

(b) For those parameters and constituents in Permit Condition F.3(a), for which no background values are established at the time the Permit is issued, the Permittee shall establish background values in accordance with the following procedures. [OAC Rule 3745-54-97(G)(1) and (2)]

(i) During each sampling event, the Permittee shall take a minimum of one sample from each well (background and compliance point wells), and shall analyze for each parameter or constituent specified in the permit; [OAC Rule 3745-54-97(G)(1) and (2)] and

(ii) Background ground water quality for a monitoring parameter or constituent shall be based on data averaged from at least four semiannual sampling events of the background wells in order to provide at least eight (8) background data points. [OAC Rule 3745-54-97(G)(2)] or

(iii) If an intra well statistical method is to be used, then the Permittee shall collect at least eight data points from each well (background and compliance point wells). [OAC Rule 3745-54-97(G)(2)].

(c) Background data collected in accordance with permit condition F.3(b) and OAC Rule 3745-54-97(G), for the establishment of background concentrations developed in accordance with OAC Rule 3745-54-97(H) and (I), may be updated in accordance with the following requirements:

(i) Background is not updated with less than 4 new data points at any one time.

(ii) The new background (previous background data plus new background data) should be checked for slowly increasing trends. If a slowly increasing trend is identified then the background should not be updated unless concurrence from Ohio EPA is received that it has been adequately demonstrated that the increasing trend is not the result of a release from the regulated unit.

(iii) Background updates should be accumulative and not a moving window, unless a trend is identified in the background data. As required in permit condition F.3(c)(ii), the identified trends would have to be adequately demonstrated to not be the result of a release from the regulated unit otherwise the background update would not be permitted.

(iv) When a trend in background data has been identified and it has been

adequately demonstrated to not be the result of a release from the regulated unit, then a moving window background should be used. The size of the moving window will be dependent upon the rate of change and the best balance between background size and variance.

F.4. Sampling and Analysis Procedures
OAC Rule 3745-54-97

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the ground water monitoring wells described in Permit Condition F.2.: [OAC Rule 3745-54-97(D) and (E)]

(a) Ground water elevations shall be measured using the techniques described in Sections 3.2 Sample Collection, 3.2.1 Procedures Prior to Sampling, and 3.2.1.1 Measurement of Ground-Water of the UAGWDMP. [OAC Rule 3745-54-97(D)]

(b) Each well shall be checked for the presence of immiscible layers prior to purging any monitoring wells where dissolved concentrations of any site-specific parameter indicate that immiscible layers could be present using the methods described in Sections 3.2 Sample Collection, 3.2.1 Procedures Prior to Sampling, and 3.2.1.2 Detection of Immiscible Layers of the UAGWDMP. [OAC Rule 3745-54-97(D)]

(c) Samples shall be collected and handled (including well evacuation, sample withdrawal, preservation, containerization, filtration and shipment) using the techniques and equipment described in Sections 3.2 Sample Collection, 3.2.2 Sampling Procedures, 3.2.2.1 Sample Equipment, 3.2.2.3 Well Evacuation, 3.2.2.5 Sample Withdrawal and Filtration, and 3.2.2.6 Sample Containers, Preservation, and Holding Times of the UAGWDMP. [OAC Rule 3745-54-97(D)(1&2)]

(d) Field analysis shall be performed using instruments, procedures, and forms described in the UAGWDMP. Instruments shall be calibrated as described in Sections 3.2 Sample Collection, 3.2.2 Sampling Procedures, and 3.2.2.7 Field Analysis of the UAGWDMP. [OAC Rule 3745-54-97(D)(3)]

(e) Sampling equipment shall be decontaminated using techniques described

in Sections 3.2 Sample Collection, 3.2.2 Sampling Procedures, and 3.2.2.2 Decontamination of Field Equipment of the UAGWDMP. [OAC Rule 3745-54-97(D)]

(f) Purge water shall be disposed of in accordance with procedures described in Sections 3.2 Sample Collection, 3.2.2 Sampling Procedures, and 3.2.2.4 Disposal of Purge Water of the UAGWDMP. [OAC Rule 3745-54-97(D)]

(g) Laboratory analytical methods, detection limits and sample holding times shall be in accordance with techniques described in Sections 3.3 Sample Parameters and Schedule, 3.3.1 Indicator Parameters, 3.3.2 Annual Parameters, 3.3.3 Background Data Collection schedule and 3.3.4 Detection Monitoring Schedule of the UAGWDMP as updated per Permit Condition F.7.(g). [OAC Rule 3745-54-97(D)]

(h) Quality assurance, including field/lab/equipment blanks, duplicate samples and identification of potential interferences, shall be in accordance with the methods described in Sections 3.3 Sample Parameters and Schedule, 3.3.6 Quality Assurance/Quality Control, 3.3.6.1 Field QA/QC and 3.3.6.2 Laboratory of the UAGWDMP. [OAC Rule 3745-54-97(D)]

(i) Chain of custody procedures, including standardized field tracking reporting forms, and sample labels, shall be in accordance with Section 3.3 Sample Parameters and Schedule, and 3.3.5 Chain-of-Custody Procedures of the UAGWDMP. [OAC Rule 3745-54-97(D)(4)]

F.5. Elevation of the Ground Water Surface

(a) The Permittee shall determine the elevation of the ground water surface at each well each time the ground water is sampled, in accordance with Permit Condition F.7(b). [OAC Rule 3745-54-97(F)]

(b) The Permittee shall record the total depth of any wells installed in accordance with Permit Condition F.2 and the surveyed elevation of the top of casing, ground surface and/or apron elevation, and the protective casing of the monitoring well(s) within thirty (30) days of the date of installation (with as-built drawings).

F.6. Statistical Procedures

When evaluating the monitoring results in accordance with Permit Condition F.7., the Permittee shall use the following procedures to identify statistically significant evidence of contamination:

(a) The Permittee shall use an appropriate statistical procedure for determining whether a statistically significant change has occurred. The statistical procedure shall be determined in accordance with the most recently finalized U.S. EPA statistical guidance document. The Permittee may follow the flow chart for statistical analysis decision making as included in the ASTM guidance document number D 6312-98 entitled: "Standard Guide for Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs." The Permittee may also follow the ASTM, where deemed appropriate by the Ohio EPA. Any statistical method that is chosen must comply with the following performance standards:

(i) The statistical method shall utilize a sample large enough to ensure with reasonable confidence that a contaminant released to the ground water from the facility will be detected. [OAC Rule 3745-54-97(G)]

(ii) The statistical procedure must be protective of human health and the environment and provide reasonable confidence that the migration of hazardous constituents from a regulated unit into and through the aquifer will be indicated. [OAC 3745-54-97(H)]

(iii) The statistical method must be used in evaluating ground water monitoring data for each hazardous constituent specified in Permit Condition F.3(a). [OAC Rule 3745-54-97(H)]

(iv) The statistical method must be appropriate for the distribution of the data used to establish background values or concentration limits. If the distribution for the constituents differ, more than one statistical method may be needed. [OAC Rule 3745-54-97(I)(1)]

(v) The statistical method must provide a reasonable balance between the probability of falsely identifying a non-contaminating unit and the probability of failing to identify a contaminating regulated unit. [OAC

Rule 3745-54-(I)(2)]

(vi) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (PQL) approved in the permit that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility using the methods outlined in the most recent version of SW-846. [OAC Rule 3745-54-97(I)(5)]

(vii) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data. [OAC Rule 3745-54-97(I)(6)]

(b) The Permittee shall choose the appropriate statistical method within 90 days of the receipt of the last background sampling event data.

F.7. Monitoring Program and Data Evaluation

The Permittee shall establish and implement a detection ground water monitoring program that will determine with reasonable confidence whether any hazardous constituents have entered the ground water as a result of activities from the unit/area covered by the Part B Permit. The Permittee shall determine ground water quality as follows:

(a) The Permittee shall collect, preserve, and analyze samples pursuant to Permit Condition F.4.

(b) The Permittee shall determine ground water quality at each monitoring well (See Figure 4 presented in the UAGWDMP) semiannually during the active life of a regulated unit, including the closure period (and post-closure care period for land disposal units which do not clean close). [OAC Rule 3745-54-98(D)]

The Permittee shall express the ground water quality at each monitoring well in a form necessary for the determination of statistically significant increases.

[OAC rules 3745-54-98(C) and 3745-54-99(C)(2)]

(c) The Permittee shall determine the ground water flow rate and direction in the uppermost aquifer at least annually. [OAC Rule 3745-54-98(E)]

(d) The Permittee shall determine whether there are any statistically significant increases over the background values for all parameters identified in Permit Condition F.3(a), each time ground water quality is determined at the compliance point. In determining whether such increases have occurred, the Permittee must compare the ground water quality at each monitoring well specified in Permit Condition F.2(a) to the background ground water quality specified in Permit Condition F.3(a), in accordance with the statistical procedures specified in Permit Condition F.6. [OAC Rule 3745-54-98(F)]

(e) The Permittee shall sample annually for the semi-volatile organic compounds listed in Table 6, presented in the UAGWDMP and add semi-volatile organic compounds from Table 6 to the list of indicator parameters as presented in Condition F.3(a), if required per the procedure described in condition F.3(a).

(f) The Permittee shall perform the evaluations described in Permit Condition F.7(d) within ninety (90) days after completion of sampling. [OAC Rule 3745-54-98(F)(2)]

(g) The Permittee shall~~, within 90 days of permit journalization, submit an amended UAGWDMP to meet the revisions required by this permit. The submittal of the revised UAGWDMP constitutes a Class 1 permit modification for which the Director's approval is required~~ comply with the revised UAGWDMP as submitted on October 21, 2002, and approved by the director on December 20, 2002.

F.8. Record Keeping and Reporting
OAC Rule 3745-54-97(J)

Operating Record
OAC Rule 3745-54-73(B)(5&6), OAC Rule 3745-54-97(J), & OAC Rule 3745-54-98(C)

(a) Ohio EPA may request a copy of the full QA/QC report for a particular

sampling event if circumstances warrant, but in general, QA/QC data will not be required except as described in this Condition. The Permittee shall enter all of the following information obtained in accordance with Permit Condition F.7 in the operating record, as required by OAC Rules 3745-54-73(B)(5&6), 54-97(J), and 54-98(C):

(i) The laboratory results from each of the wells and their associated qualifiers, including the laboratory sheets for the full volatile and semi-volatile analyses (must include method codes, detection limits and units of measurement);

(ii) The date each well was sampled (tabulated):

(iii) The date, time, and identification of all blanks and duplicates;

(iv) Any field log documentation of deviation from the procedures in the UAGWDMP including documentation of parameter omissions during the sampling event;

(v) The date the Permittee received the results from the laboratory;

(vi) The date the owner or operator completed their review of the analytical laboratory's verification of the accuracy and precision of the analytical data and determined its quality. This review shall be based upon the elements in Permit Condition F.8.(a)(vii).

(vii) The results of the data validation review per F.8(a)(vi) including: report completeness, chain of custody, sample receipt form, signed statement of validity, technical holding time review, data qualifiers including their definitions, dilutions, blank data, spikes, spike recovery %, surrogate recovery, and an explanation of any rejected results consistent with the USEPA and Ohio EPA guidelines for data review;

(viii) Results of all blanks (trip, field, equipment and method);

(ix) Results of the field parameters;

(x) All chains of custody;

(xi) The date the statistical evaluation was completed;

(xii) The statistical evaluation of the data according to the statistical tests(s) that the Director has specified (must include all computations and results of statistical tests) OAC Rule 3745-54-73(B)(6), 54-97(J) and 54-98(C);

(xiii) Any changes in well status (i.e., going from unaffected to affected status and vice versa);

(xiv) Ground water surface elevations taken at the time of sampling each well as required by OAC Rule 3745-54-73(B)(6);

(xv) Data and results of the annual determination of the ground water flow rate and direction as required by OAC Rule 3745-54-73(B)(6); and

(xvi) The results of the last three years for all inspections required under OAC Rule 3745-54-15(D) related to ground water monitoring and equipment, as required under OAC Rule 3745-54-73(B)(5).

(b) The established background values and the computations necessary to determine background values must be included in the operating record and submitted to the Ohio EPA within ninety (90) days after the completion of the last background sampling event.

(c) The Permittee must submit an annual report to the Director by March 1st or first business day thereafter, if this falls on a weekend. The annual reports must reference the titles and dates of any other periodic reports required by the Permit or any updates to those reports (for example, due to confirmation sampling, comments by Ohio EPA, etc.), but generally do not need to include duplicates of hard copies previously submitted. The annual reports must include, at a minimum, the analytical results required by Permit Condition F.7(b), the ground water elevation data required by Permit Conditions F.5(a) and F.7(c), the results of the initial statistical analyses required by Permit Condition F.7(d), and the results of the evaluations required by Permit Condition F.7(e). In addition, a copy on disk of all ground water and blank data must be submitted electronically in the format supplied by the Director. A hard copy of well-specific information [location (latitude and longitude),

depth, construction, etc.] for any new/replacement wells, and any other information specified in the instructions for the annual report not addressed in this Condition must be submitted in accordance with the schedule stated in Condition F.8(d) as required by OAC Rule 3745-54-75 and 54-97(J).

(d) Other Reports

The Permittee shall comply with any reporting requirements that become necessary under Permit Condition F.10 in accordance with the schedule in that Condition and as required by OAC Rule 3745-54-77(C). If any of these dates falls on a weekend, the reports will be due no later than the following business day. Resampling reports must include the same types of information as the initial reports pertaining only to the resampled well(s). It is recommended that the Permittee submit the analytical results required by Permit Conditions F.7(b) and F.7(c), the results of the initial statistical analyses required by Permit Condition F.7(d), and the results of the evaluations required by Permit Condition F.7(e) in accordance with the following schedule and as required by OAC Rule 3745-54-77(C):

Samples to be Collected During the Preceding Months of:	Results Due to the Director By:
April - May October - November	Within 90 days of completion of the sampling event

F.9. Assurance of Compliance

The Permittee shall assure the Director that the ground water monitoring program will ensure the earliest possible detection of contamination leakage from the regulated units, that any contamination leakage would be characterized, and that the need for further action will be determined. [OAC Rule 3745-54-98]

F.10. Special Requirements if Significant Increases Occur in Values for Parameters or Constituents

If the Permittee has determined that a statistically significant increase has occurred

for any of the parameters or constituents identified in Permit Condition F.3(a), in accordance with the statistical procedures in Permit Conditions F.6. and F.7., the Permittee must:

(a) Notify the Director in writing, within seven (7) days of that determination. The notification must indicate what parameters or constituents have shown statistically significant increases and the corresponding analytical results. [OAC Rule 3745-54-98(G)(1)]

(b) Within 30 days ~~sample the ground water in the background well(s), the affected well(s), and the first immediately downgradient well(s) and determine the concentration of all constituents identified in the Skinner List of Parameters (Table 4. of the UAGWDMP)~~ of making the statistical exceedance determination, BP will sample the ground water in the nearest background well and the affected well and determine the concentration of all constituents identified in Tables 5 & 6 that were not analyzed during the most recent event at which the statistically significant increase occurred. [OAC Rule 3745-54-98(G)(2)]

(c) If the Permittee desires, for any additional compounds detected per F.10(b), resample ~~affected wells~~ within one month of determining a statistically significant increase and repeat the analysis for any compounds identified in Tables 5 & 6 ~~the Skinner List of Parameters (Table 4.~~ of the UAGWDMP~~)~~ that were detected. If the results of the second analysis confirm the initial results, then these constituents, in addition to those noted in F.10(a), ~~or if the Permittee elects not to re-sample, then the detected compounds~~ will form the basis for compliance monitoring [OAC Rule 3745-54-98(G)(3)]. [Note: BP has replaced the ground water hazardous constituent list included in the Appendix to OAC 3745-54-98 with a site-specific indicator parameter list (Skinner List, Table 4 of the UAGWDMP) of refinery related constituents, which will be analyzed annually. In addition, all site specific parameters, except semivolatile organic compounds included on Tables 5 & 6 of he UAGWDMP, will be analyzed semiannually.]

(d) Within ninety (90) days of determining a statistically significant increase, submit to the Director an application for a permit modification to establish a compliance monitoring program. [OAC Rule 3745-54-98(G)(4)] The application must include the following information:

(i) An identification of the concentration of each Skinner List (Table 4. of the UAGWDMP) constituent found in the ground water at each monitoring well at the point of compliance. [OAC Rule 3745-54-98(G)(4)(a)]

(ii) Any proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of compliance monitoring as described in OAC Rule 3745-54-99. [OAC Rule 3745-54-98(G)(4)(b)]

(iii) Any proposed changes to the monitoring frequency, sampling and analysis procedures, or methods or statistical procedures used at the facility necessary to meet the requirements of compliance monitoring [OAC Rule 3745-54-99] and the Ground Water Protection Standard [3745-54-92]. [OAC Rule 3745-54-98(G)(4)(c)]

(iv) For each hazardous constituent detected at the compliance point, a proposed concentration limit, or a notice of intent to seek an alternate concentration limit for a hazardous constituent under OAC Rule 3745-54-94(B). [OAC Rule 3745-54-98(G)(4)(d)]

(v) The Permittee shall begin sampling and analyzing for the new constituents at the next regularly scheduled sampling event following the event in which they were determined to be present.

(e) Submit to the Director an engineering feasibility plan (EFP) for corrective action and all data necessary to satisfactorily justify an alternate concentration limit within 180 days of determining a statistically significant increase, unless the concentrations of all hazardous constituents identified under permit condition F.3(a) do not exceed their respective values listed in Table 1 of OAC 3745-54-94 (or their respective MCLs), or the Permittee has sought an ACL variance for every hazardous constituent identified under F.3(a). If the Permittee's ACL request is denied the Permittee shall specify a timeframe for the submittal of the EFP. [OAC Rule 3745-54-98(G)(5)]

(f) If the Permittee determines, pursuant to Permit Condition F.7., there is a statistically significant increase above the background values for the

parameters specified in Permit Condition F.3(a), he may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In such cases, the Permittee shall:

(i) Notify the Director, in writing, within seven (7) days of determining a statistically significant increase, that he intends to make such a demonstration. [OAC Rule 3745-54-98(G)(6)(a)]

(ii) Within ninety (90) days of determining a statistically significant increase, submit a report to the Director which successfully demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. [OAC Rule 3745-54-98(G)(6)(b)]

(iii) Within ninety (90) days of determining a statistically significant increase, submit to the Director an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility. [OAC Rule 3745-54-98(G)(6)(c)]

(iv) Continue to monitor in accordance with the detection monitoring program at the facility. [OAC Rule 7345-54-98(G)(6)(d)]

F.11. Request for Permit Modification
OAC Rule 3745-54-98(H)

If the Permittee or the Director determines the detection monitoring program no longer satisfies the requirements of the regulations, the Permittee must, within ninety (90) days of the determination, submit the date of that determination and an application for a permit modification to make any appropriate changes to the program which will satisfy the regulations. [OAC Rule 3745-54-98(H)]