Project Title: Multimedia Oil and Gas Production Environmental Results Program Project Work Plan Revision 1

Location: Statewide Louisiana

Applicant: Louisiana Department of Environmental Quality

Contact: Chris M. Piehler, Senior Environmental Scientist
LDEQ
602 Nth 5th Street
Baton Rouge, LA 70802

Funding Request: $250,000

Project Period: From grant acceptance to September 2011

Project Summary

The Louisiana Department of Environmental Quality (DEQ) sought funding from the Environmental Protection Agency to assist in funding an innovative project to promote increased compliance rates within the oil and natural gas exploration and production industry sector (E&P) and streamline air and water permitting activities for both industry and the DEQ. Funding from the Environmental Results Program (ERP) will be used with state funds to demonstrate baseline compliance rates within air and water regulatory programs, apply innovative compliance assistance approaches including a web-based permit application module and self-certification process, measure compliance rates after application of compliance assistance approaches, and deliver a print-quality document "Field Guide to Environmental Compliance for the Louisiana Oil and Gas Exploration and Production Industry" ("Field Guide") which describes applicable environmental requirements for air and water media and instructions on the use of the web-based tools. The deliverables will be accompanied by a report on the effectiveness of the compliance assistance approach. The on-line modules will be transferable to other regulatory media and industry sectors. The guidance/instruction document including compliance assistance and compliance rate improvement procedures will be made available for other states use. This effort is supported by the Secretary of the Louisiana Department of Environmental Quality.

This project supports the "Innovating for Better Environmental Results: A Strategy to Guide the Next Generation of Innovation at EPA" by integrating air and water media across an entire industry sector, providing economical means for sector environmental compliance, and engaging industry in the development of tools and approaches that will increase compliance with environmental obligations. In addition, the deliverables stand to strengthen the U.S. Environmental Protection Agency's (EPA) partnerships with other states by making available descriptive compliance assistance approaches with certified effectiveness, by addressing environmental management of a unique business sector whose site specific activities can change rapidly, and by integrating compliance assurance and compliance assistance activities for efficient agency and industry operations.

The goal of this project is to increase environmental protection by increasing compliance with environmental requirements. This will be achieved through streamlining of the permitting process, increasing regulatory monitoring and enhancing industry understanding of environmental obligations. The DEQ is achieving this through collaborative work with the Louisiana Department of Natural Resources Office of Conservation (DNR/OC, which regulates oil and natural gas resource development), the public through environmental non-government organizations (ENGOs), and with the E&P industry sector. The DEQ will create tools and approaches with industry and ENGO input to efficiently achieve the goals of increased environmental protection and compliance. Documentation of these approaches and demonstration of their effectiveness in increasing compliance rates will be transferable to other state regulatory programs. These tools will also be transferable to other media and industry sectors.

The DEQ is taking a multi-media approach to this ERP project. All aspects are intended to address both air and water regulatory programs, with consideration given to future use of these tools and approaches for other media and other industry sectors. This feature has been requested by industry within the scope of this ERP effort as well as in other situations prior to this project's inception.

This project will also develop and publish (in the "Field Guide") pollution prevention and waste minimization practices that operators of E&P sites may use to enhance environmental protection in an economical manner. Within the scope of the ERP, these practices are considered Environmental Business Practice Indicators (EBPIs) and will be developed with close interaction with Stakeholders familiar with E&P business processes. These materials will be provided to industry through workshops after initial (baseline) compliance assurance visits, and made available in hard copy and through web portals. Documentation of these approaches will also be available to other state regulatory agencies for their consideration. In addition, findings of this project will be used to address other programmatic activities discovered to be in need of additional innovative approaches.

Needs Statement

The oil and gas production industry in Louisiana dominates the universe of facilities regulated though the air (Clean Air Act) program and is a significant component of the water (Clean Water Act) program. Over one-third of all known regulated facilities in these media in Louisiana belong to this industry category and many more are suspected to be operational without required permits. Over 43,000 active wells and thousands of production-related facilities produce, process, and transport oil and natural gas.

The management of permitting and compliance within these media and this industry sector faces significant challenges due to the large number of facilities and the dynamic nature of the industry. Traditional handling of permit applications and modification submittals can occur at a slower pace than industry business practices. This inherent lag in information about the regulated community renders compliance management, and subsequently environmental protection, potentially lacking in effectiveness. The rapidity with which the industry locates and re-locates regulated activities requires enhanced timeliness of programmatic actions for effective

regulatory management. Therefore, to efficiently address the environmental management challenges of such a specialized industry, innovative approaches to traditional regulatory practices are needed. The DEQ intends to use this grant award to produce internet based tools to allow submission of air and water permit applications.

This tool will also present opportunity for permit applicants to easily indicate which well sites are associated with their DEQ-regulated E&P facility. The siting and construction of well sites are permitted and regulated by the DNR/OC but are not typically subject to air and water permitting through the DEQ. However, oil and natural gas extracted from wells are gathered through flowlines to E&P sites, which contain numerous components that are regulated by DEQ. Through the on-line permit application tool, applicants will be able to easily identify those well sites associated with the E&P site subject to the permit application. Providing a process to associate well sites with E&P sites will also assist compliance assurance by providing another mechanism to search for activities subject to environmental regulation.

Environmental requirements applicable to the E&P sector can be difficult to discern for the regulated community. Reasons for non-compliance can include lack of understanding of applicable regulations. Many industry representatives are willing to conduct business in a compliant manner, but are not clear as to what requirements are applicable to a given facility or activity. A deliverable of this grant award is a document, developed with the input of the Louisiana ERP Stakeholders, that will put in layperson's terms how to determine the applicable air and water requirements for any given E&P facility or activity. The "Field Guide" will be designed with the users in mind, to be portable yet thorough, and to be an easy reference guide that can accompany industry field workers on the job. It will help bridge understanding of those requirements that may differ slightly from the federal to Louisiana-specific. The document will be public domain, published in hard copy and also made available through download from the DEQ website.

Compliance rate improvement will be measured after providing the "Field Guide", the on-line permit application and self-certification tools, through venues for delivery and discussion. This measurement will be the result of statistical comparison of compliance rates for air and water programs from inspections before compliance assistance (baseline) to inspections conducted after compliance assistance (post-treatment). These tools and the process by which they are disseminated and maintained will be "certified" with these measurements of compliance rate improvement. The manner in which changes to compliance rates are measured is detailed in the following section "Project Design".

Project Design

This project will produce compliance assistance tools for the E&P industry and measure change in compliance rates attributable to a those tools and approaches. Compliance rate changes will be measured by: 1) performing baseline full compliance evaluations (FCEs) on a subset of E&P facilities for air and water requirements; 2) creating and distributing tools to industry for their use in conducting self-assessments and self-certifications; and 3) after sufficient time for business practices to adjust to using the newly developed tools, conducting full compliance evaluations at E&P facilities that represent the same companies subject to baseline FCEs, but at

different facilities than those that were subject to the baseline FCEs. This approach will help to isolate measured compliance improvements to those attributable to the compliance outreach efforts as opposed to improvements that may come as a result of formal enforcement action, which would likely be facility-specific.

Stakeholder involvement - This project requires involvement of a number of representatives from USEPA, DEQ, DNR, industry, and the public (through ENGOs). Prior to this work plan revision, contacts have been established and relationships developed to further the project activities and goals. Other Stakeholders have since been identified, specifically within industry, whose involvement will be necessary. Contact with the Louisiana Oil and Gas Association will be initiated during the fall of 2008.

Stakeholders and their anticipated contributions are described below:

- USEPA - the Environmental Results Program is housed within the USEPA and is providing the grant award, program oversight and guidance to the Louisiana ERP Oil and Gas Project.
- DEQ - the Louisiana Department of Environmental Quality is providing project design and management, input on permitting and enforcement issues, inspections for compliance rate determination, software programming and testing for web-based compliance assistance tools, and web-site operation and maintenance for stakeholder input and information transfer.
- DNR - the Louisiana Department of Natural Resources has provided direct access to data tables associated with the regulatory functions that agency applies to the oil and gas E&P industry. This access will be used to coordinate through web-based applications, the identification of well sites associated with the DEQ permit application of a given E&P site. This is elaborated in the next section "**Partnership with DNR/OC**".
- Industry representatives - a number of groups that represent oil and gas industry interests have been included in the discussions of this project and more will be included before the compliance assistance phase of this project begins. It is absolutely essential for the industry, who is the intended user of compliance assistance tools developed within the scope of this project, to guide the development of these tools and assist in customizing the associated approaches. The compliance assistance tools developed for this project are intended to be used by this group of stakeholders.
- Public (ENGOs) - environmental advocacy is a driving force in environmental protection. Having the benefit of independent third party involvement will assist in ensuring that goals of this environmental results project are reached. In addition, ENGOs can help recognize the applicability for future use of these tools in other media, other programs at the DEQ, and other regulatory agency uses.

Stakeholder involvement is maintained through periodic workshops, conference calls and the Louisiana ERP website (http://www.deq.louisiana.gov/portal/tabid/2727/Default.aspx) where comments can be provided to the DEQ and information transferred to visitors of the web page.

Partnership with DNR/OC - The oil and gas E&P industry in Louisiana is regulated by DEQ and by DNR/OC. Activities associated with well bore construction, logging and production recording are subject to authorization and tracking by the DNR/OC. Wells are typically not

regulated by the DEQ air and water programs unless the well leaks or otherwise is not functioning normally, and then DEQ involvement would be temporary until the abnormal condition has passed. However, E&P facilities, to which crude oil and natural gas from producing wells flows, may be subject to DEQ air and water permitting. Partnership with DNR/OC is necessary to gain access to the DNR/OC data tables which are updated frequently and with great rapidity.

Access to these data serves several purposes both within and outside the scope of this project design. First, data on well operators are used to determine the facilities subject to FCE inspections. More on this is discussed in the subsection "Facility selection" below. Second, the web-based permit application module, created to enable a simple, timely method of applying for appropriate DEQ permits, will be used to link the DEQ on-line permit application with DNR/OC data. This will provide an easy "check off" method for a permit applicant to include the wells associated with an E&P facility subject to the permit application. Third, and outside the scope of this project design but useful for future compliance assurance activities, DNR/OC data can be checked to identify oil and gas E&P activities for which the DEQ may not have received permit application. This feature will enable discovery of activities potentially subject to DEQ regulation in the office and reduce resources necessary to otherwise locate these unpermitted activities by minimizing time in the field.

As of the date of this work plan revision, agreement has been reached with DNR/OC and access to the subject data tables has been provided. The Information Services Division (ISD) staff members responsible for construction of the web-based permit application tools will use that access to link the module to the DNR/OC well data. An applicant can select the well operator and field and this will prompt the module to list all wells in that field operated by that company. The applicant can then check to include wells associated with their facility. This information will be included in the formal DEQ permit application completed on-line.

Facility Selection - The universe of well site operators in Louisiana varies from approximately 1200 to 1300 annually. The target number of well sites selected from the DNR/OC well site database for initial FCE is 300 (representing 300 operators) for an approximate sample size of 23 to 25%. Inspectors conducting FCEs are instructed to go to a listed well site and locate the associated E&P site for compliance evaluation. Well sites were selected based on the following criteria:

1) The well operating company operates more than one E&P site in Louisiana so that baseline FCEs and post treatment FCEs can be conducted at different facilities operated by the same company. This allows compliance changes to be largely attributable to compliance assistance as opposed to potential enforcement ramifications.

2) The well operating companies selected represent the operators with highest monetary value of production to maximize the probability of a chosen facility to be subject to permitting and to help ensure the company operates more than one regulated facility in Louisiana.

3) Sites belonging to selected operating companies are distributed across the state in a manner that would spread inspection resource allocations evenly across the six DEQ regions of the state to maximize the number of site visits without excessive impact on inspection resources.

The bias that this approach provides slants facility selection toward those operators who are most likely to afford to be in compliance and/or have resources to conduct activities in a compliant manner. This minimizes the affect of economics on the operational decisions made by facility operators. This also gives opportunity to fully develop and "fine tune" compliance assistance approaches so that small-profit operators will be provided with a proven set of compliance assistance tools.

Additionally, the 300 selected operating companies were divided into two groups: those that are known to have a DEQ air and/or water permit, and those that do not. This was done to maximize the probability that facilities subject to permitting (but were not properly permitted) would be included in order to use one of the tools to be provided within the compliance assistance component of this project. Approximately 200 operating companies selected had some permit (air and/or water) with the DEQ and approximately 100 did not. Note that a facility may be legitimately operating without a permit, but that cannot be determined until the site is visited and the situation evaluated.

As site visits ensue, discovery of sites that will not fit this project design may occur. For example, a well site may be shut in and not operational. Also, a facility may have recently undergone upset conditions (hurricane impacts, well blow out, etc.) and not be in a normal operating situation. When these facilities are encountered, the inspectors are advised to gather what information they can and discuss this with the ERP Project Manager. The subject site may then be replaced by another from the DNR/OC database by working down the "production value" criteria 2) above.

For post-treatment compliance evaluation site selection, well sites operated by the companies subject to baseline FCEs will be selected randomly from the list of wells operated by that company. The post-treatment inspections of coastal zone facilities will be randomly selected from the same operators' remaining coastal zone facilities and round two inspections of upland facilities will be randomly selected from the same operators' remaining upland facilities. The only non-random aspect of the selections will be to make adjustments to evenly distribute inspections across regions. This selection will be subject to modification in order to address criteria 3) above.

Baseline Compliance Evaluations - Full compliance evaluations will be conducted at a subset of the universe of facilities within Louisiana to gain a measure of current compliance rates within the industry for air and water programs. Guidance, orientation, and oversight are provided to inspection personnel to ensure consistent, thorough and accurate facility site reviews. Inspection information entered into TEMPO will be scrutinized for quality control by the project manager. Captured data will be compared to 'post-compliance assistance treatment' inspection data to measure changes in compliance rates after introduction of the compliance assistance tools to industry.

Compliance Assistance Tools - Interactions with industry and the public prior to this work plan revision have initiated dialogue into the development of tools expressed as being useful for compliance assistance. The tools include web-based modules for permit application and self-

certification by industry as to their environmental requirements. In addition, interaction throughout this project is available through a web page hosted by the DEQ (http://www.deq.louisiana.gov/portal/tabid/2727/Default.aspx) and designed to provide project specific information and opportunity to comment upon or ask questions.

Compliance assistance tools developed within the scope of this project include the following:

- Web-based permit application modules - well operators will be able to use the internet to complete an on-line form to submit application for air and water permits. In addition, compliance self-certification forms will be available on-line and can be completed and submitted to the DEQ electronically. Enabling on-line permit application will remove a "temporal" obstacle to environmental compliance by providing a more timely method of submitting and updating permit applications. Self-certification gives operators an opportunity to assure themselves and the regulating agency that compliance has been achieved at the subject site.
- "Field Guide to Environmental Compliance for the Louisiana Oil and Gas Industry" - this document will put into laypersons language how to identify the air and water program requirements that are applicable to a given E&P facility. It will also describe how to use the on-line permit application modules. It is intended to be easily read and portable, to be used in the field or office as needed. The document will also discuss practices that industry representatives can employ that will go beyond compliance and provide added protections for the environment. These practices will include efforts that reduce waste and prevent pollution. These "Best Practices" are considered Environmental Business Practice Indicators within the scope of the ERP program and can be distributed to other agencies and programs.
- Workshops - workshops will be held in the creation and in the final distribution phases of the web-based applications and "Field Guide". Workshops will provide opportunity for the public (through ENGOs) and industry to give guidance and comment, to review draft materials for acceptability, and to give approval for final work products. A web site for information transfer has been developed to support this activity and is available at http://www.deq.louisiana.gov/portal/tabid/2727/Default.aspx.

Once finalized, the tools will be distributed to industry members of the ERP stakeholder group as well as through correspondence directly to the corporate offices of the companies subject to the baseline and post-treatment FCEs.

Post-treatment FCEs - Full compliance evaluations will be conducted at facilities owned by companies subject to the baseline FCEs, but at different facilities other than those inspected as part of baseline. This will identify changes to compliance rates attributable to corporate level compliance assistance as opposed to those attributable to facility-specific enforcement actions. Information from these inspections will be compared to baseline compliance rate data and used to develop the quantifiable changes to compliance rates. Compliance rate changes can be described within the context of each individual regulation, group of regulations, or to judge the success of self-certifications. High compliance rates observed with facilities that submit self-certifications can be used to direct limited LDEQ inspection resources to facilities other than those providing self-certifications of compliance. Facilities self-certifying compliance but found significantly lacking in some areas can be the focus of additional outreach.

Reporting on ERP Project Results - Findings from the compliance evaluations will be reported to the ERP Stakeholders and EPA staff as a measure of the success achieved through the project's activities. Statistics on the compliance rates specific to regulation or groups of regulation will "certify" effectiveness achieved using the compliance assistance tools and also serve to identify where areas of further compliance assistance may be needed and applied. For each regulation and/or group of regulations, data analysis using the Student's *t*-test (or nonparametric equivalent) will describe whether compliance rate changes are statistically significant and to what degree (percentage) that compliance rates improved.

Environmental Results Program Criteria

Priority Issues

This project addresses two environmental issues of national priority, wet weather pollution and contributions to ground-level ozone. Water discharges from E&P sites are mostly tied to storm water runoff. Increased compliance with environmental regulations can reduce runoff potential of pollutants. Air emissions associated with E&P sites contain compounds precursory to ground-level ozone formation. Clarifying the effects of E&P site operations on ambient air standards and providing economically positive pollution prevention opportunities can reduce emissions that contribute to ground-level ozone.

Measurable Improvements

This project will measure change in industry behaviors specific to compliance with environmental requirements. Baseline compliance rates determined through compliance assurance inspections will be compared to compliance rates after compliance assistance tools and efforts are applied. Documentation on utility and effectiveness of the tools will then be available for transfer to other agencies accompanied by a report describing the beneficial affect on industry and the environment.

Transferring Innovation

Documentation of the innovative approaches associated with this project will be available for transfer to other regulatory agencies. Louisiana's web-based on-line permitting and compliance self-certification tools will be written in Microsoft Visual C# 2005, a language within Microsoft Visual Studio. The robust nature of the software platform makes it adaptable to a variety of environmental data management systems. Instruction on the use of these tools will be a component of the Field Guide, a print-quality document made available in hard copy and through the internet. The compliance assistance approaches will be certified with a measured compliance rate change.

Project Cost

Funds awarded for this project are being leveraged with significant LDEQ programmatic funding to provide efficient development of deliverables.

Technical Feasibility

The approaches subject to this project have been accomplished with positive results on smaller scales. Linking the approaches together and expanding the scope is technically feasible and proven.

Team Proposal
The LDEQ is collaborating with the Louisiana Department of Natural Resources, which regulates E&P activities such as well drilling, underground injection and well-site access in wetland areas, to ensure that industry activities are accurately identified for appropriate regulatory consideration. Further, interactions with stakeholder groups (i.e., oil and gas E&P representatives and ENGOs) will ensure that utility of the deliverables is maximized and goals of environmental protection are achieved.

Innovation in Permitting
Standard practices within the E&P industry sector are typically rapid in terms of locating and re-locating site activities. This rapidity is a challenge for traditional CWA and CAA permitting actions, both for the regulatory agency and the permittee. Developing an on-line permit application mechanism, on-line compliance self-certifications, and a guidance document for use of on-line tools and understanding applicable regulations will provide an innovative approach to address this need.

Readiness and Commitment
Business practices within the LDEQ relative to air and water regulatory programs, especially permitting, are challenged by the large number of regulated sites that are created through the dynamic nature of the oil and gas E&P. The LDEQ and industry need an efficient and innovative approach to reducing the burdens associated with a large and dynamic industry. Once success of the approaches in this project is demonstrated, the LDEQ anticipates expanding these approaches into other media and industry sectors to continue to exploit the benefits.

Stakeholder Involvement
Planning, review, and comment on the details of this project are vetted through the public and through the industry sector in which it targets. Several meetings with the Louisiana ERP Stakeholders are anticipated from project planning to tool implementation. Usefulness of this tool to the industry is an absolutely essential feature of the project, necessitating well cultivated relationship with users.

Work Plan Phases

Phase I
This Phase runs from grant award to completion of certain preparatory aspects of Phase II accompanied by the initiation of other Phase II precursory tasks. Phase I is the preparation for compliance assurance and compliance assistance actions in Phase II. Tasks (and their respective responsible personnel) to be completed in Phase I include:

- Holding Stakeholders meetings to advise and gain input on project design, implementation and anticipated format of project deliverables. These meetings are conducted with industry representatives, the public through ENGOs, and DEQ Senior Environmental Scientists (Seniors) within the Office of Environmental Services (OES).

- Submission and approval of a quality assurance project plan (QAPP) for data collection activities associated with the Louisiana ERP. This QAPP will be modified and subsequently approved when project activities are adjusted. The QAPP is consistent with the Louisiana DEQ Quality Management Plan and with EPA guidance.
- Establishment of inspection tools necessary to ensure consistency of inspection techniques applied by Office of Environmental Compliance (OEC) Surveillance Division (SD) personnel. This includes requirement checklists and personnel training sessions to maximize similarity among Full Compliance Evaluations (FCEs) for water and air media geographically across regions of the state and temporally from Phase II (baseline) compliance inspections to Phase III (post-treatment) compliance inspections. Assigned personnel include SD Seniors for water and air and SD Environmental Scientists who will conduct Phase II and III compliance inspections.
- Identification of facilities and companies subject to the project. This is accomplished by an SD Senior. Details on facility selection and adjustments necessary to replace inappropriate initial facility selections are provided in "Project Design: Facility Selection" above.
- Initiating development of software programming for creation of web-based tools for industry use, i.e., on-line compliance self-certifications and on-line permit application submittals. This includes issuance of contract for information technology services associated with operations of the web-based tools. This is accomplished by Office of Management and Finance (OMF) Information Services Division (ISD).

Phase II

Phase II begins with the baseline FCEs of subject facilities for air and water requirements. Compliance assistance is applied through OEC interactions with subject facilities based upon FCE findings. Compliance assistance tools are provided to industry representatives and meetings are held in three geographic locations in the state to explain their use. Phase II starts in September 2008 and is completed by September 2009. Tasks (and their respective responsible personnel) to be completed in Phase II include:

- Conducting FCEs for air and water regulatory programs on subject facilities. This activity, along with the associated documentation, handling, and data entry into the DEQ database Tools for Environmental Management and Protection Organizations (TEMPO) is accomplished by SD Environmental Scientists, their respective chains-of-command and other OEC personnel, i.e., Enforcement Division (ED), as appropriate based upon findings during the FCE.
- Review and edit as necessary FCE data entry into TEMPO based on hard-copy documentation to ensure accuracy and completeness of data. This is accomplished by SD and ED personnel.
- Completion of proto-type of web-based tools for compliance assistance, i.e., on-line compliance self-certifications and on-line permit application submittals. This is accomplished by Office of Management and Finance (OMF) Information Services Division (ISD).
- Completion of a draft Field Guide compliance assistance tool. This tool, intended for use by industry, will contain guidance on determining applicable air and water requirements for a given facility, instructions for use of an on-line web-based permit application mechanism, and instructions for use of an on-line compliance self-certification. This draft will be

produced by a group of DEQ staff from ISD, SD, Business and Community Outreach Division (BCOD), ED, Water Permits Division (WPD), and Air Permits Division (APD).

- Conducting 3 regional compliance assistance meetings with stakeholder to discuss Phase II FCE findings and disseminate the draft Field Guide and proto-type of on-line services for review and comment. This is accomplished by BCOD, SD, and ISD staff.
- Finalize the Field Guide and on-line system services with revisions provided by Stakeholders. Distribute to all subject facilities and associated corporate representatives. This is accomplished by ISD SD, BCOD, ED, WPD, and APD.
- Conduct 3 regional stakeholder meetings to release the finalized Field Guide, on-line permit application module and on-line compliance self-certification module. This is accomplished by BCOD, SD, and ISD staff.

Phase III

This phase begins approximately 9 months after the final task in Phase II, giving industry the opportunity to implement usage of the compliance assistance tools provided in Phase II. Phase III begins with FCEs to be completed at facilities owned by companies represented in the Phase II facility list, but includes facilities owned by those companies that were not inspected in Phase II (same company, different facility). Compliance rates are calculated before compliance assistance tools (Phase II) and will be compared to compliance rates after the development of, dissemination of, and instruction on the compliance assistance tools (Phase III). This phase ends with the evaluation of the compliance rate comparisons, report development on the project results, and the delivery of specific work products subject to this grant award, i.e., on-line air and water permit application modules for Louisiana's data management system, an on-line air and water compliance self-certification form, and the "Field Guide to Environmental Compliance for the Oil and Gas Exploration and Production Industry." Tasks (and their respective responsible personnel) to be completed in Phase III include:

- Identification of facilities subject to Phase III FCEs. This is accomplished by an SD Senior.
- Conducting FCEs for air and water regulatory programs on subject facilities. This activity, along with the associated documentation, handling, and data entry into the DEQ database TEMPO is accomplished by OEC/SD Environmental Scientists, their respective chains-of-command and other OEC personnel, i.e., Enforcement Division (ED), as appropriate based upon findings during the FCE.
- Reviewing and editing as necessary FCE data entry into TEMPO based on hard-copy documentation to ensure accuracy and completeness of data. This is accomplished by OEC/SD and OEC/ED personnel.
- Conducting analysis of Phase II and Phase III compliance rate data to determine whether the treatment applied to industry (compliance assistance in the form of on-line tools and Field Guide document) has resulted in a statistically significant increase in compliance. Before- and after-treatment compliance rates will be analyzed using a one-tailed two-sample t-test, provided the resulting data is normally distributed. Should the resulting data be found to be non-normal, the Mann-Whitney nonparametric test will be employed. This is accomplished by an OEC/SD Senior with OMF/ISD assistance.
- Reporting to the EPA on the results of the project through compiled documentation, discussion and summary. This is accomplished by a group of DEQ staff representing ISD SD, BCOD, ED, WPD, and APD. The draft report will be provided to the EPA for review and comment prior to being made final.

- Delivery of the "Field Guide to Environmental Compliance for the Louisiana Oil and Gas Exploration and Production Industry", the on-line air and water permit application module for the Louisiana data management system, and the on-line air and water compliance self-certification form.

Schedule of Milestones and Deliverables*

***Schedule subject to adjustment based upon *force majeur* occurrences such as hurricane impacts and associated response to those issues**

(PM=Project Manager, OEC=Office of Environmental Compliance, OMF=Office of Management and Finance, OES=Office of Environmental Services)

Milestone	Deliverable	Percent Complete as of August 25, 2008	Target Completion Date	Assigned staff
	1) Initial Stakeholder meetings (on going)	100%	May 15, 2007	PM, OEC,OMF,OES
	2) QAPP submittal	100%	March 2007	OES
3) Air/Water Inspection guidance		100%	June 26, 2008	OEC
4) Inspector orientation		50%	August 29, 2008	PM, OEC
5) Phase II facility list (Facility list adjustments as needed)		60%	August 29, 2008	OEC
	6) QAPP adjustments	0%	December 31, 2008	PM
	7) 4th Quarter 2008 progress report	0%	December 31, 2008	PM
	8) Baseline FCE inspections	40%	March 31, 2009	OEC
	9) 1st Quarter 2009 progress report	0%	March 31, 2009	PM
10) Inclusion of additional stakeholders not previously identified		0%	December 2008	OEC

Milestone	Deliverable	Percent Complete as of August 25, 2008	Target Completion Date	Assigned staff
11) Data entry to TEMPO QC		0%	April 15, 2009	PM, OEC
	12) On-line permit application and self-certification tool and instructions	35%	April 30, 2009	PM, OES, OMF
13) Guidance on applicable requirements		30%	January 2009	PM, OMF, OES
	14) Field Guide draft	0%	March 2009	PM
15) Regional stakeholder meetings for presentation of and discussion on draft compliance assistance tools		0%	May 2009	PM
	16) Field Guide final	0%	June 2009	PM
	17) 2nd Quarter 2009 progress report	0%	June 30, 2009	PM
	18) Regional stakeholder meetings for release of compliance assistance tools and guidance on their use	0%	July 2009	PM

Milestone	Deliverable	Percent Complete as of August 25, 2008	Target Completion Date	Assigned staff
	19) 3rd Quarter 2009 progress report	0%	September 30, 2009	PM
	20) 4th Quarter 2009 progress report	0%	December 31, 2009	PM
	21) 1st Quarter 2010 progress report	0%	March 31, 2010	PM
22) Phase III (post treatment) facility list (Facility list adjustments as needed)		0%	June 2010	OEC
	23) 2nd Quarter 2010 progress report	0%	June 30, 2010	PM
	24) 3rd Quarter 2010 progress report	0%	September 30, 2010	PM
	25) Phase III (post treatment) inspections	0%	December 2010	SD ESs, ED ESs
	26) 4th Quarter 2010 progress report	0%	December 31, 2010	PM
27) Data entry to TEMPO QC, rate statistics		0%	March 2011	PM, OEC

Milestone	Deliverable	Percent Complete as of August 25, 2008	Target Completion Date	Assigned staff
	28) 1st Quarter 2011 progress report	0%	March 31, 2011	PM
	29) Final report and deliverables	0%	June 30, 2011	PM

ERP Revised Budget Summary

(*Financial Information removed by EPA as confidential business information)*

	FTE	Total Project Cost	State Leverage Funds	EPA Funding
Salaries plus 25% Benefits				$
OEC Seniors (3)	0.65	$		
OMF/ISD PAs (3)	1.00	$		
OMF/ISD TSAs (3)	0.75	$		
OMF/FSD Staff (1)	0.10	$		
OES ES Staff (2)	0.20	$		
Information Technology Services Contract		$		$
Indirect Costs*		$		$
Travel		$		$.
TOTAL				**$250,000**

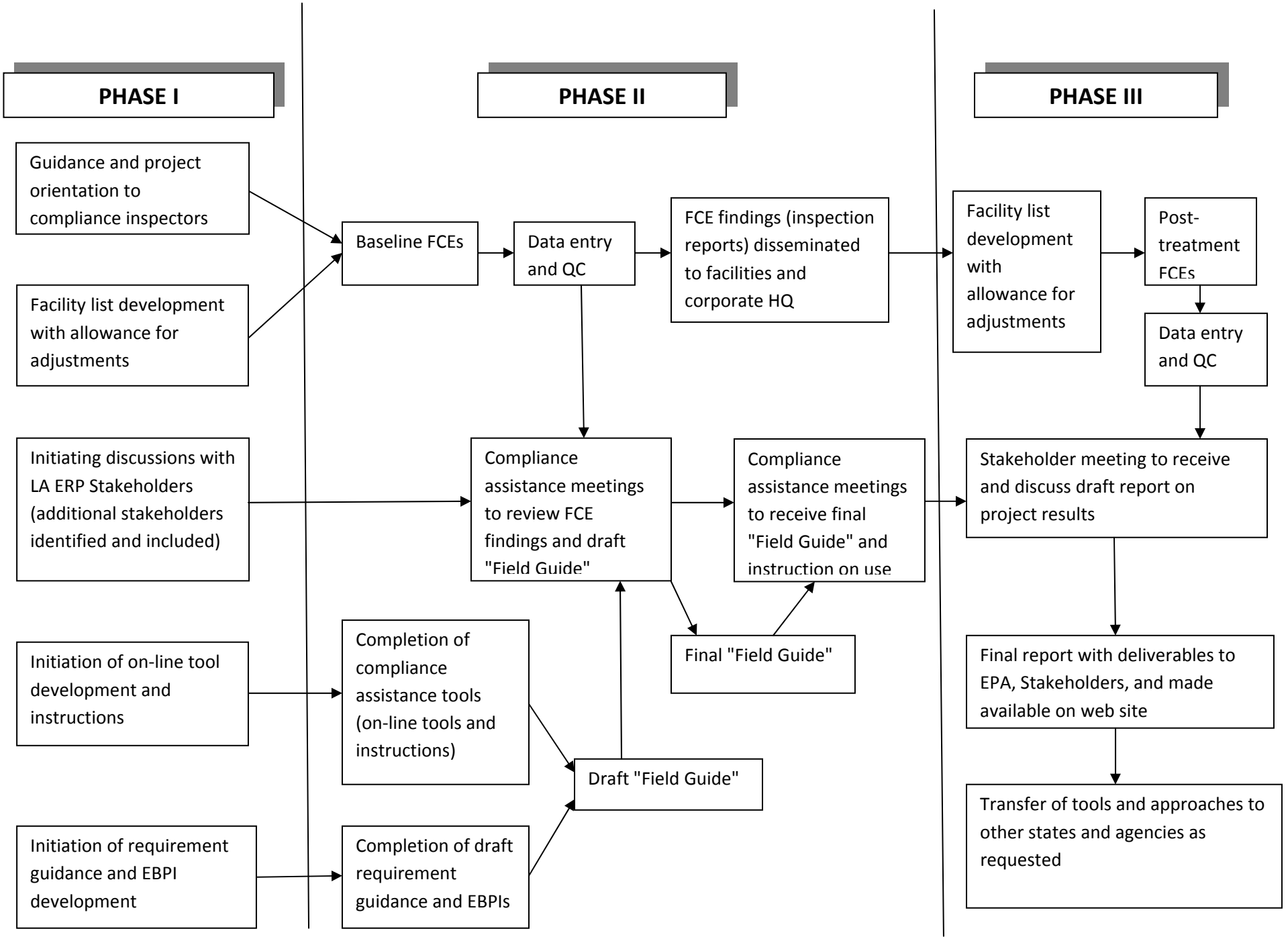
*Indirect Costs are for supplies, printing, utilities, etc. needed by staff in support of grant activities.

Program/Project Description

			Outcomes			
Resources & Partners	**Activities**	**Outputs**	**Customer Reached**	**Short Term**	**Intermediate Term**	**Long-Term**
• USEPA • LDEQ • LDNR • Trade/Business Associations • Environmental Consulting Firms • Public, through environmental non-government organizations	• Identify and involve internal and external stakeholders in ERP development • Conduct outreach to regulated community	• List of stakeholders • Public meetings • Public communications	• LDEQ • LDNR • Trade/Business Associations • Environmental Consulting Firms • Public, through environmental non-government organizations	• Increased knowledge of ERP's and potential benefits	• Agency/industry relationships and collaborations are created and fostered • ERP approaches adopted by industry	• ERP utilization by industry results in a high level of compliance, reducing pollutant releases to the environment
	• Finalize project design and expectations of ERP • Data exchange collaboration with LDNR • Identify all oil and gas production operators in the state • Develop EBPI's, P2s and BMPs • Develop compliance assistance materials	• Linkage between regulatory programs for more clear sector regulation • List of oil and gas production facilities prior to ERP outreach • Environmental Business Practice Indicators, BMPs and P2s • Compliance assistance outreach materials	• LDEQ • LDNR • Regulated community • Trade/Business Associations • Environmental Consulting Firms	• Increased awareness among industry sector of applicable regulations and how to achieve compliance • Areas of performance problems are more easily identified • Increased understanding of "beyond compliance" options	• Areas of non-compliance and performance problems are addressed • Facilities adopt and maintain EBPIs, P2s and BMPs	• Environmental compliance is improved • Emissions of air pollutants are reduced • Discharges of water pollutants are reduced

			Outcomes			
Resources & Partners	**Activities**	**Outputs**	**Customer Reached**	**Short Term**	**Intermediate Term**	**Long-Term**
• LDEQ • Trade/Business Associations • Regulated community	• Develop multimedia inspector checklist • Develop and conduct inspector training • Conduct targeted baseline and final inspections	• ERP training for inspectors on inspection tools and techniques ensuring thorough site reviews by inspector • Common areas of non-compliance identified • Establish baseline and final compliance rates of target operators	• Regulated community • Trade/Business Associations • Environmental Consulting Firms	• Regulated community awareness of common areas of non-compliance is enhanced	• Regulated community identifies common non-compliance issues at specific facilities and brings them into compliance	• Correction of areas of common non-compliance decreases release of air and water pollutants to the environment
• USEPA • LDEQ • LDNR • Trade/Business Associations • Environmental Consulting Firms • Public, through environmental non-government organizations	• Conduct compliance assistance workshops • Develop, test and launch online self-certification program and web-based permit application tool • Implement self-certification program • Create interface with TEMPO database • Publish "Field Guide"	• Compliance assistance workshops conducted • Web-based permit application tool integrated with TEMPO database • Online self-certification tool integrated with records management and TEMPO database • Planning application of ERP to other sectors and media • "Field Guide to Environmental Compliance"	• Regulated community • Trade/Business Associations • Environmental Consulting Firms • Public, through environmental non-government organizations	• Awareness of compliance assistance tools (location and utility) developed	• Operators self-certify compliance with applicable requirements on-line • Operators apply for necessary air and water permits using on-line tools	• Proper permits are issued that are protective of the environment • Activities at specific facilities result in reduced releases of air and water pollutants

External Influences: Stakeholder participation, state and federal budget constraints, leadership changes at appointed level, staff inertia, and public opinion



Logic Model for the Oil and Gas Production Environmental Results Program Project