California Environmental Protection Agency

**Best Management Practices
for
Enforceable Permits**
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Office of the Secretary

Acknowledgement

The following individuals deserve special recognition for their valuable contribution to the development of Best Management Practices for Enforceable Permits.

Dear Reader

The Enforceable Permits Steering Committee (Committee) was established by the Secretary of Cal/EPA in November of 2007 to identify and resolve issues related to the enforceability of permits within Cal/EPA's Boards, Departments, and Offices (BDOs). Its mission is to plan and implement the continuing improvement and coordination of California's permitting and enforcement programs and to ensure that permits are clear, consistent, and enforceable. Committee members represent permitting and enforcement programs throughout the BDOs. While some issues may be specific to individual BDOs, the Committee adopted an agency-wide approach and evaluated the most common overarching issues that arise when addressing the enforceability of permits. Each BDO is expected to determine for which specific permit programs within their organization this guidance is applicable. The Committee created this guidance document recommending best management practices (BMPs) to achieve several objectives:

1. Recommend approaches that increase the enforceability of permits and allow BDOs to maintain continuity and uniformity in their permits;
2. Promote a collaborative approach between permitting and enforcement programs;
3. Recommend measures to bridge any "cultural" gaps between permitting and enforcement programs at all levels;
4. Propose methods to track permit enforceability issues so that they are documented and can be addressed in the next permit cycle;
5. Provide a common guidance document to all BDOs while recognizing the uniqueness of each organization.

These BMPs are categorized into issues related to permit writing, permit compliance determination, monitoring, and procedure/process.

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Permit Writing

BMP 1 - The regulatory authority for the permit and the requirement(s) to comply with the permit should be clearly cited in the permit.

Discussion: The regulatory authority is the underlying framework for permit issuance and its relationship to the permit needs to be clear so that the context of the permit is understood. Inclusion of the specific citations for the requirement(s) to comply with the permit will provide additional clarity relative to the foundation of the permit and reduce confusion and potential challenge of the permit on foundation issues.

Recommended BMPs:

- Clearly state the regulatory authority of the agency to issue the permit.
- Develop and maintain a template for each agency that includes the required statutory and/or regulatory authority and how compliance with permit requirements is determined.
- Revise the template promptly to incorporate changes in laws, regulations, plans, and policies.
- Maintain the template as some of the underlying citations may change over time and/or need to be supplemented.

BMP 2 - The permit requirements and limits should be based on laws, and BDO established regulations, plans and policies.

Discussion: BDO standards (laws, regulations, plans, policies, etc.) have been established that place requirements which must be incorporated into permits. Interpreting each standard or policy for each permit requires much research and language development by staff. Consistency in the application of these standards is needed.

Recommended BMPs:

- Provide template language for each policy or requirement to be included in permits.
- Provide template instructions for permit writers.
- Review the permit to ensure that the applicable requirements are incorporated into the permit, and that the most recent standards are being used.

BMP 3 - All permit requirements should be clearly stated in terms that are consistent with statute, regulation policy, or plan.

Discussion: Terms used .in permits that are defined in statute or regulations will have a consistent definition that all permit writers and enforcement program staff can access and understand. For example, a permit that uses quarterly or annual averages would be inconsistent with the regulations that require weekly or monthly averages.

Recommended BMPs:

- Use terms defined in statutes, regulations, and policies in a permit.
- Include the citation (statute, regulations) of the definition for clarity.
- Cite the policy document for terms in policy.

BMP 4 - Terms used within each BDO on a statewide basis should have consistent definitions.

Discussion: Terms that are not defined in statutes, regulations, plans, or policies may be subject to inconsistent interpretation because they lack a consistent definition. Permit requirements that are ambiguous can lead to confusion on how compliance is determined. Variation in how a term is defined and used within a-permit and from permit to permit can make enforceability difficult as the original meaning of the term may not be the one used when evaluating compliance. An example is the use of the term "average." If the basis for calculating the average is not defined, it could be interpreted as a daily, monthly, or annual average. Only one interpretation would be consistent with the original intent of the use for the term "average."

Recommended BMPs:

- Write permit requirements in language that is clear.
- For terms not otherwise defined, indicate in the permit itself how the term is defined, either within the condition in which it appears, in a footnote, or in a document appended to the permit that includes all compliance terms and their definitions pertinent to the permit.
- Delineate any term that could be defined in multiple ways so it is clear how it is being defined in the context of the permit. For example, the term "capacity" should be defined relative to capacity for storage, a rate such as throughput capacity, etc.
- Minimize the use of acronyms. Spell out and define acronyms that are used the first time in the permit. Do not use acronyms if they are used only once in the permit.
- Avoid the use of "should" or "may" when the intent is to require actions. Instead, use "shall" or "must."

- Avoid the use of "as soon as possible." Instead, indicate a maximum timeframe. For example, "The operator shall take corrective actions as soon as possible but no later than 24 hours or at the end of the shift whichever comes first."
- Avoid the phrase, "take reasonable precaution." Instead, specify safe practices. For example, "reasonable precautions shall include but are not limited to: keeping combustible materials away from heat, having a 30-inch walk-way, storing all solvents in closed containers, and mixing volatile organic compounds in closed containers."
- Avoid the use of terms such as "significantly." Instead, when applicable use a range or percent. For example, "The operator shall take corrective action if the pressure drop is 10% out of the limit," or "the pH shall not exceed 7.5," or "the pressure drop shall not exceed 20 inches of water," etc.
- Avoid reference to a manufacturer's specification. Instead, include the specific parameters from the manufacturer in the permit. For example, "this equipment shall be operated within a temperature range of `x" at a pressure differential of `y'."

BMP 5 - Each BDO should establish and include in their permits a set of standard provisions.

Discussion: Certain provisions within the authority of a BDO may be applicable to all permittees no matter the site. If left to each individual permit writer, these provisions may vary in how they are included in the permit which could lead to confusion or additional time to identify them from permit to permit. This can lead to inconsistent enforcement of the provisions. However, there is a need for site specific conditions which should be included, as necessary, to address issues not covered by the standardized provisions, but should not contradict the standardized conditions.

Recommended BMPs:

- Develop and maintain templates of statewide standard provisions to be used by each permit writer.
- Develop standardized conditions that apply to a particular region or set of permittees so that they will be consistent for that region or group of permittees.
- Develop the standard provisions in cooperation between permitting program staff and enforcement program staff.
- Establish a maintenance program to review and update the provisions within each BDO, as well as a strategy to implement changes as permits are reissued, renewed, or revised.

BMP 6 - When the permit requires reporting, the permit should specify the requirements for the permittee to report required information.

Discussion: Most permits require the permittee to report specific information to the agency that issues the permit. Clarity regarding the what, when, and how of reporting is key in ensuring that the permittee will be able to fulfill the requirements, especially if the lack of complete and timely reporting getting to the correct agency program is a factor in determining compliance. This is especially important when the permittee is required to self-report violations and when violation determination requires calculations of analysis of sample data. Timeliness is important when violations may result in increased or accelerated actions being taken, such as additional or more frequent monitoring.

Recommended BMPs:

- List and describe the reporting requirements in one place in the permit.
- Ensure consistency between reporting requirements and applicable standards as they appear in statute, regulation, plan, policy, or in other documentation.
- Reference the specific forms to be used and how and to what entity they should be submitted, especially if it is not clearly a part of the reporting protocol.
- Allow flexibility in the terms in the permit to account for changes made in the reporting requirements. For example, the name, title, or address of a specific person at a regulatory agency may change during the life of the permit.
- Discuss the reporting requirements with the permittee prior to the permit being issued, to ensure that the permittee understands the requirements and consequences of failing to comply.
- Indicate to the permittee that failure to meet the reporting requirements will be a compliance issue.
- Provide a template or checklist to the permittee that clearly identifies the reporting requirements.
- Develop and implement standard permit language for recording and reporting, especially for self-reporting of violations.
- Provide standardized worksheets and reporting forms to permittees to use when reporting. These sheets and forms could be interactive (i.e. drop down menus) to ease in reporting items with limited types of responses (i.e. violation or no violation, dates and times, etc.).
- Provide for a web-based interface for reporting.

BMP 7 - When writing permits that require records to be maintained by the permittee, the permit should be specific as to which records need to be maintained and for how long.

Discussion: Permits that require records to be maintained should specify which records are to be retained, indicate if the records are to be maintained at the site and/or at another location, and be made available to the BDO.

Recommended BMPs:

- Provide a table or checklist in the permit that identifies the records that need to be maintained, the locations, and any relevant timeframes.
- Include a provision in the permit regarding record retention requirements by the permittee.
- Develop standard permit language addressing records retention by the permittee.

BMP 8 - Each permit mandate should have a clear consequence for failure to comply.

Discussion: The permits give the permittee the right to operate or discharge under certain conditions and limitations specified in the permit. It is the permittee's responsibility to make sure it complies with the permit, regulations, and law. Experience shows that when made aware of the consequences of noncompliance with the conditions of a permit, permittees tend to make more of an effort to comply.

Recommended BMPs:

- Develop and maintain a template for each agency that includes the required statutory and/or regulatory authority.
- Clearly cite general regulations that apply when compliance is not achieved.
- Meet with the permittee and clearly explain the permit requirements and consequences of noncompliance.
- Revise the template when procedures change over time.

BMP 9 - Modifications to permits (e.g. variances, time schedule orders, new laws, regulations, interpretations) should be clearly stated and fully substantiated.

Discussion: A permit can contain minimal information such as a reference to the application/operation plan or extensive detail on policy/regulation requirements and permitted activities. Whether a permit is simple or complex, at some point, it is likely to be modified during its term before it expires or before it is renewed. Permit modifications vary from minor changes (simple editing changes for greater clarity, typos, factual corrections, etc.) to major changes (making permit more or less stringent, removing requirements, reducing monitoring, changing the permit limits as a result of new court cases or adoption of new laws, regulations, plans, or policies). Regardless of the reason for the modification, the permit should remain as enforceable, if not more, as before the modification took place.

Recommended BMPs:

- Develop procedures for permit modifications.
- Modify templates so that new permits that are written using the templates will have the new information.
- If changes apply to a group of existing permits, consider applying the changes to the group of existing permits rather than changing each permit individually.
- Provide a forum for discussion of permit changes or usage issues so that permits with similar issues may benefit from changes in one particular permit. For example, at the Water Boards the template changes are discussed at NPDES Roundtable as issues arise.
- Consider entering permit changes into a database system or an issue tracking system so that all changes are clearly documented and are readily available.
- Show tracks or highlight the changes so that they can be easily seen when the revised permit is issued or noticed for public comment. If there are few changes, an errata sheet should be provided. If there are numerous changes, a table showing the page numbers of the changes should be provided instead. Both the revision sheet and the table of changes will facilitate review of the revised permit.

Compliance Determination

BMP 1 - Permits should clearly state how compliance is determined. Requirements and limits must be clearly stated.

Discussion: Permits sometimes fail to clearly state what activity is being permitted and how compliance is to be determined. This leads to ambiguity that undercuts agencies' ability to effectively enforce permits.

Recommended BMPs:

- Include in the permit the required citations and references to the appropriate regulatory and guidance documents for sample collection and analysis procedures.
- Develop and maintain a template permit for each agency that clearly states:
  - what activity is being permitted,
  - what is to be measured,
  - when it is to be measured, and
  - how it is to be measured.
- Specify in the permit all the parameters to be measured, and the conditions under which they should be measured.
- Include specific direction for analysis and reporting of parameters where where the permit limits are below current industry-standard detection limits.
- Specify test methods, type of equipment/Specify test methods, type of equipment/instrument used, its calibration and its precision.
- Specify in the permit the appropriate sampling collection method and (hourly, daily, weekly, etc.).
- Alternatively, require the permittee to submit a Sampling Plan which should include all elements described above.
- Revise the template when procedures change over time.

BMP 2 - Narrative or qualitative permit requirements should be clear, measurable, and enforceable.

Discussion: There are instances where regulations allow qualitative requirements to be part of the permit. For example, when numeric standards have not been established, it may be infeasible or impracticable to set numeric limits. The use of qualitative requirements could raise specific "enforceability" issues because establishing, reporting, and determining compliance with these qualitative requirements can be difficult, especially if the permit writer is not familiar with specific industry practices.

Recommended BMPs:

- Describe the parameters, including timelines and milestones for evaluating performance, when the limitations are based on the performance or implementation of BMPs.
- When feasible, include numeric limits which implement the narrative or qualitative requirements.
- Clearly explain and fully substantiate the procedure when setting numeric limits to implement narrative requirements.
- Become familiar with the industry being permitted.

BMP 3 - The permit should clearly state criteria and permit conditions.

Discussion: The permit should clearly state all criteria that must be complied with, and also clearly define how conditions of the permit shall be met. Permit conditions may be based on policy, rather than regulations. When relying upon a policy, clarification of the underlying policy may be needed prior to permit issuance in instances where the policy is lacking clarity.

Recommended BMPs:

- Clearly identify all criteria to be complied with, and the regulations or standards on which they are based.
- For specific permit conditions, explain how a standard or regulation applies.
- Clearly define how conditions of the permit shall be met (without dictating method of compliance).
- Write permit conditions in clear, concise, and succinct language.
- Include specific criteria for evaluation and compliance determination, such as parameters and test methodologies, for any limit or threshold required by the permit.
- If appropriate, establish policies in regulation.

BMP 4 - The permit should include compliance determination information.

Discussion: Some permit requirements are not clear. Instructions to permittees may not reference the regulations. The format of applications/operation plans and permits do not follow the format or order of the regulations. Determination of whether a violation has occurred is complex. For example, a permit that states "operator shall not produce offensive odors" is difficult to enforce.

Recommended BMPs:

- Provide an inspection checklist or compliance tool along with the permit.
- Discuss the requirement with the permittee and require the permittee to provide details showing how the permittee will comply (the name or title of the person who is responsible, forms and worksheets, sample schedule, etc.).
- Develop standard interactive forms for determining whether there has been a violation.
- Develop standard recording and reporting forms.
- Develop on-line applications, including fields for applicant to fill in detail showing how they will comply with each appropriate regulation.
- Provide for on-line recording and reporting of permit violations.

Monitoring

BMP 1 - When the permit requires monitoring, it should state the specific sampling and testing protocols upon which compliance shall be demonstrated.

Discussion: Compliance with some or all criteria or conditions included in a permit may need to be met through specific methods. For example, at the Water Boards, compliance with mercury limits requires the use of "clean" techniques. Thus, specific sampling and test protocols may need to be specified in the permit to determine compliance with the criteria or threshold in a condition.

Recommended BMPs:

- Clearly reference and, as needed, describe the thresholds or measures that must be met to maintain compliance for all criteria and/or conditions.
- Clearly reference and, as needed, describe the particular protocol, sampling, and testing methods that must be used to demonstrate compliance for all criteria and/or conditions.
- Clearly delineate in the permit the specific means and methods that need to be used to demonstrate compliance with the criteria and conditions, if there is no flexibility in the methods that can be used by a permittee to demonstrate compliance.

BMP 2 - The monitoring requirements should be consistent with monitoring objectives.

Discussion: Where monitoring is required in a permit, determine the need and basis for the requirement. The objectives of monitoring to detect the presence and concentrations of a wide range of contaminants over a wide area are different than the objectives of monitoring to determine whether the measures to prevent releases or emissions of specific constituents have been successful. For example, the State Water Board's preliminary draft NPDES General Permit for Adulticides states that the monitoring program is designed to measure contaminants in the watershed from application of adulticides.

The basis of the requirements is the Water Boards' water quality control plans which require "no toxics in toxic amount."

Recommended BMPs:

- Clearly state the objectives of the monitoring requirements.
- Clearly state the actions and schedules of the permittee to comply with the Monitoring requirements and achieve the objectives.
- Describe the parameters, including timelines and milestones for evaluating performance when the limitations are based on the performance or implementation of BMPs.

BMP 3 - When the permit requires monitoring, monitoring requirements should be linked to permit limits, actions or events.

Discussion: Monitoring should be linked to limitations, actions, and events. All items that need monitoring should be included and there should be a reason for all monitoring that is required.

Recommended BMPs:

- Provide a template with instructions for any permittee required monitoring that prompt the permit writer to ensure that all permit limits and other requirements (such as special studies) have corresponding monitoring requirements.
- Provide training to the permit writer on regulations to reinforce knowledge of monitoring requirements.
- Define the monitoring the monitoring requirements within special studies or otherwise specify in a template monitoring plan. (Such monitoring should not be confused with monitoring that is required for the duration of the permit.)
- Develop standard permit language that provides rationale for the sampling requirement and risk-based monitoring that allows for reduced monitoring frequency when the permittee has reached certain compliance milestones.
- Include justification for requiring monitoring in the permit fact sheet.

BMP 4 - Procedures should be adopted so that data required by the permit are from field samples and samples collected for laboratory analysis are admissible as evidence of compliance.

Discussion: Most samples collected for compliance are sent to a laboratory for analysis; the few exceptions are chlorine residual, pH, temperature, turbidity, etc. The accuracy of data is dependent on such factors as competency of personnel taking the samples, method of sampling, sample preservation, sample analysis, test method, and accuracy of the laboratory equipment and laboratory protocol. Data accuracy and reliability also play a critical role in compliance verification/determination especially when an enforcement action is necessary. They affect the admissibility of any result as evidence in proving compliance or non-compliance of permit requirements in a legal case. Therefore, the accuracy and integrity of data used in compliance verification/determination as required by the permit must be ensured.

Recommended BMPs:

- Analyses required by the permit should be conducted by a laboratory certified for such analyses by the Department of Public Health, except where otherwise allowed.
- Identify the laboratory that performed the sample analyses in all monitoring reports.

Procedure/Process

BMP 1 - Complex and lengthy permits should provide a summary of key permit and enforcement order milestones and deadlines.

Discussion: A summary can act as a quick guide for the permittee as well as the staff when enforcing a lengthy or complex permit. The summary is especially important when there are short- and long-term compliance milestones that have corresponding timeframes. These requirements may be embedded throughout the permit and can be hard to find and collate.

Recommended BMPs:

- Include an "Executive Summary" to the permit either as a "preamble" in a separate section of the permit or in a transmittal letter.
- Include the main conditions of the permit, especially the key compliance limits and conditions.
- Include a summary of milestones and deadlines that are either part of the permit or are part of an enforcement order that is running parallel to the permit requirements.
- Ensure that the Executive Summary is accurate.
- Include a disclaimer that the Executive Summary is provided only as a courtesy and that specific requirements and wording of the requirements in the permit or enforcement order are what should be used if there is a difference between them and the Executive Summary.

BMP 2 - Permittees should be directly informed regarding the specific requirements in their permit.

Discussion: Some permittees receive permits without any direct communication by the agency after a permit is issued. As has been observed, many permittees are unaware of the requirements of their permit, particularly small businesses. Communication either before or immediately after issuance of the permit is needed to establish a baseline of understanding by the permittee.

Recommended BMPs:

- Require the permittee to acknowledge receipt of the permit and acknowledge understanding of permit requirements.
- Provide training for the permittee either before or immediately after the permit is issued.
- Build in training as a permit requirement.
- Provide web-based training on an established frequency.

BMP 3 – Permittees should be directly informed that they must submit complete reports.

Discussion: Confusion arises when the permit is vague or inconsistent with the reporting procedures. The reporting requirements should be fully discussed with the permittee.

Recommended BMPs:

- Discuss the reporting requirements with the permittee so that there is greater assurance that the requirements are understood.
- Include in this discussion the fact that meeting the reporting requirements is a compliance issue.
- Provide for on-line reporting.
- Require summary of permit compliance status from a permittee.
- Communicate to the permittee that submittal of reports does not necessarily mean compliance.
- Ensure that the permittee understands the consequence of failure to follow permit reporting requirements.
- Ensure that resources and program priorities are in place to review submittals when developing reporting requirements in permits.

BMP 4 - The permit should reflect actual site conditions.

Discussion: Permit writers must be familiar with the site being permitted. Some permits may have been written without a site visit. A thorough knowledge of the site, which can only be gained through a site' visit, is needed to accurately develop operating requirements in a permit.

Recommended BMPs:

- Inspect the site at least once while drafting a permit, preferably in coordination with an enforcement staff person. If a contractor is responsible for performing a pre-permit inspection, and/or drafting the permit, the permit writer and enforcement staff should accompany the contractor.
- Ensure that the physical description of the site and the operation is accurately characterized in the application and the permit. For example, effluent limitations must be appropriate for the receiving water (or other medium) and the treatment proposed must be feasible (consider space limitations).

BMP 5 - Coordination should be established between permitting and enforcement staff.

Discussion: Established coordination between permitting and enforcement staff is necessary within BDOs. Information gained by the enforcement staff can inform development of a permit or needed revisions of a permit. When drafting a permit, the permit writer can obtain specific site information from enforcement staff that have visited the site and are familiar with the conditions. If enforcement staff observe conditions that need to be changed, this information should be provided to the permit writer. Conversely, the permit writer can request that, during an inspection, enforcement staff observe specific areas or operations that may be troublesome because of complex or unusual permit conditions.

Recommended BMPs:

- Hold routine joint meetings between permitting and enforcement staff.
- Conduct joint inspections with permitting and enforcement staff when a permit is being drafted or modified.
- Invite the permit writer on routine inspections.
- Ensure that enforcement staff has the opportunity and adequate time to review draft permits for enforceability and are able to provide feedback.
- Ensure that permit writers evaluate feedback from enforcement staff when modifying or drafting permits.
- For complex permits, develop lists of key requirements for enforcement staff to use to evaluate if a permittee is complying with a permit.
- Provide a checklist to staff for the following:
    o ongoing coordination between enforcement staff/permit writers,
    o things to do before drafting the permit,
    o things to do while drafting the permit,
    o things to check before the permit goes public, and
    o things to do after the permit is issued.
- Ensure that the permit writer has the opportunity and adequate time to recommend specific areas for the enforcement staff to observe prior to conducting the inspection.
- Ensure that the enforcement staff has the latest permit and has read it prior to inspecting the site.

BMP 6 - Training should be provided to permit writers and enforcement staff.

Discussion: A joint training program should be established jointly for permit writers and enforcement staff. All staff should understand the role of a permit and the role that compliance plays in ensuring that permits provide environmental protection. Training for both permit writers and enforcement staff is needed to ensure that permits are well written and enforceable.

Recommended BMPs:

- Assess training needs of permit writers and enforcement staff.
- Develop a training program, including training on the following:
  - Statutes, regulations, plans, and policies,
  - Permit writing, including what standard language to use, and
  - Writing permits that are enforceable.
- Cross train permit writers and enforcement staff in each other's programs.
- Track training needed and received by permit writers and enforcement staff.

BMP 7 - Permitting and compliance files and file maintenance should be a BDO priority.

Discussion: Access to and maintenance of permitting files and enforcement files are not consistently handled within BDOs. At times, files cannot be located, information is missing from files, or files have not yet been established for sites. In some instances files are retained at project managers' desks. Access to complete file information is critical for agency oversight as well as governmental transparency.

Recommended BMPs:

- Make paper and electronic filing systems and maintenance a priority.
- Ensure that responsibility for file maintenance is clear in each office.
- Ensure that files have the most recent information regarding the permit and compliance status.
- Ensure that the location of each file in each office is known.
- Complete a status report and discuss with the new permit writer when responsibility for administering a permit is transferred.