16156.5203

FINAL

PERMIT STREAMLINING REPORT FOR SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Submitted to

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February 1999

EXECUTIVE SUMMARY

The South Coast Air Quality Management District (AQMD) processes approximately 11,000 permit applications annually. Applications include those to construct new equipment, existing equipment operating without a permit, modifications, relocations, change of conditions and change of ownership. Additionally, in 1997 and 1998, approximately 900 applications were filed for initial Title V facility permits. A permit streamlining study was conducted to evaluate the existing permit program and various alternatives and to recommend short-, medium- and long-term solutions to make permit processing more effective. *Effective* was defined as reducing permit processing time, reducing the AQMD permitting effort, reducing permit applicant effort and enhancing emission reductions.

The Study investigated:

- Permit Application Workflow and System Structure
- Suggestions from AQMD Staff and Permit Applicants
- Available Supporting Systems, Programs and Procedures
- How Other Air Quality Agencies Do Business
- How Other Non-Air Quality Organizations Do Business

The Study was conducted concurrently with Permit Streamlining Task Force efforts and was also coordinated with a group investigating Fee Structure. Approximately 200 ideas from a multitude of sources were segregated according to eight categories and rated according to six primary evaluation criteria and 22 subcriteria. The criteria were weighted by the Permit Streamlining Task Force to reflect their relative importance to the permitting process.

Idea Categories

1. Fees
2. Forms
3. Interactions between permitting and other AQMD sections
4. Management issues
5. Application tracking
6. Permit processing
7. Support systems and procedures
8. Application work flow

Evaluation Criteria (and Weighting Factor, %)

1. System Efficiency (25%)
2. Responsiveness to External Customers (20%)
3. Effectiveness in Meeting Air Quality Mandates (15%)
4. Provision of Support to Other AQMD Programs (10%)

5. Ease of Implementation (20%)
6. Management Considerations (10%)

The ideas were evaluated by five members of the AVES team according to the subcriteria. The subcriteria were scored between -3 and +3, representing a rating of least to most favorable.

The result of this exercise was ranked lists of permit streamlining ideas divided into eight categories. The scores were graphed for each category and those above a natural break were ranked "best." The "best" ideas were then called "solutions" and grouped according to the general "area of concern." Care was taken to ensure that all solutions within an "area of concern" were internally consistent.

Summary of Key Findings and Recommendations

The highest ranking ideas that would streamline permitting and reduce time required to issue permits were grouped to address the most serious permitting process problems or "areas of concern."

1. Steps Required to Issue Permits
2. Communications
3. Permit Structure and Facility Permits
4. Management and Organization Issues

Each area of concern is presented by (1) describing the problem, (2) listing a summary of recommendations, and (3) providing an overview of benefits gained from implementing the recommendations. A detailed discussion of recommendations is presented in Section 5.

CONCERN #1 – <u>Steps Required to Issue Permits</u>. In an effort to process the large number of applications received each year in an orderly fashion, AQMD's permitting workflow has evolved into an extremely complicated process that involves many steps. With few exceptions, each application travels the same path regardless of its type and complexity. Bottlenecks and delays are possible at each step of the process. Often, the actual processing time for a conventional (non-facility type) equipment permit is relatively short when compared to the lengthy waiting time that can occur when encountering a bottleneck.

Of the actual processing time, engineering evaluation is the most time-consuming because of the nature of the individual steps that an engineer must take. These steps include the initial examination, requesting additional information (from the applicant), meetings, historical research (internal), emission calculations, rules analysis, BACT analysis, toxics analysis, offsets analysis, computer entry, discussing the application with the supervisor/senior engineer, revisions, and possibly, hearing board appearances. An unofficial "time-motion" analysis (see section 2.1.5) revealed that the top three time-intensive activities for the engineer to process conventional (non-facility

type) equipment permits were: (1) rules analysis (BACT, toxics, offsets, conditions), (2) information requests, and (3) emission calculations.

Recommendations – Applications for frequently permitted equipment may be processed more efficiently using a simplified alternative procedure called a Standard Permit. For these types of applications, the AQMD should use its experience and clearly define the criteria under which the equipment may be permitted without extensive evaluation. This concept of the Standard Permit has been proposed by the AQMD staff and approved by the Permit Streamlining Task Force. The Standard Permit concept should be expanded to cover as many equipment categories as possible. By processing a significant number of applications through the simplified alternative routing, the workload on the regular process can also be reduced. A system must be instituted to continuously update and maintain the program to retain program effectiveness. Other recommended solution categories are:

1. Standardization – Standard permits, standardized permit process.
2. Electronic Application Submittal – Applications and eventually all permit documents to be submitted electronically, implement the WARP II system.
3. Application Tracking – Applications and associated documents to be assigned a tracking number. Tracking system for source tests, plans. A unique number for each piece of equipment. Generate aging reports on all applications.
4. Prescreening – Eliminate. Engineers to determine application completeness as soon as assigned.
5. Reject Incomplete Applications (Information Request) – Objective criteria to accept or reject applications which will reduce amount of time requesting information from severally incomplete applications.
6. Rules – Permit by rule. Evaluate impact on permitting as rules are proposed or amended.
7. CPP Reform – A CPP reform package was proposed by the CPP task force.
8. Prioritization – Bottlenecks need to be identified and processing tasks re-prioritized according to time lag; engineers given tools.
9. Support Systems – Better capture and transfer of data electronically.
10. Fees – Reconcile Rule 301 and BCAT/CCAT fee tables.

Benefits – Expected benefits of implementing the above recommendations would:

1. Reduce the percentage of applications requiring extensive engineering processing through Standard Permits. As many as 30 to 35 percent of applications could eventually be processed as Standard Permits.
2. Allows applications to be reviewed and deemed complete more efficiently (i.e., within one to two weeks) and eliminate duplicated effort.
3. Provide more efficient application and document tracking mechanisms.
4. Provide a mechanism to analyze process bottlenecks, measure engineer performance.
5. Rejecting incomplete applications allows engineers to not waste time requesting information that should have been submitted.

6. Automate pre-screening by allowing the computer to pre-screen once applications are submitted electronically.

CONCERN #2 — Communications. Poor communication of AQMD policies and procedures to permit applicants leads to incomplete and inaccurate applications, incorrect fees, and disgruntled, confused applicants. Ultimately, air quality suffers from this confusion. Poor communication of internal policies to permitting engineers leads to increased processing time as engineers debate informal policy interpretation. It also leads to inconsistent permitting policy on the front line. Poor data retrievability and inability to manipulate information vital to the permit processing engineer (e.g., past permit data, source test information, data reentry, etc.) greatly increases application processing time.

Recommendations – Many highly rated solutions were linked to the need for better communications (e.g., greater use of the Web, worksheets for applicants, permitting manual, BACT manual, staff training, pre-application meetings, a group designated to meet applicants [meeters], Automated Computer Expert System [ACES], fees hotline). One of the highest ranking solutions listed the need for timely, consistent policies and permit evaluation protocols (posted on the Web). This would be especially useful for the applicants and AQMD engineers in understanding the most current policies and methods to demonstrate compliance.

With respect to pre-application conferences, the AQMD should have experienced permit engineers who can meet with potential permit applicants well in advance of application submittal. Team members would discuss the proposed project and identify all regulatory requirements. They would have the knowledge and the authority to tell the prospective applicant what conditions must be met, what information must be submitted, and what the correct fees are, for the application to be successful—given that the information is available at the time of the pre-application conference. The AQMD engineers' performance would need to be measured based on information provided to the applicants. Recommended solution categories are:

1. Expanded Use of the AQMD Web Page – Post policy, procedures, emission factors. Post list of certified manufacturers and equipment on AQMD web page.
2. Applicant Assistance – Permitting fee worksheet, pamphlets, R301 hotline; public outreach – No fault audits, coordination with industry and small business; customer feedback – Forum on AQMD web page.
3. Pre-Application Conferences – Correct answers within 24 hours.
4. Guidance Documents – Permit processing handbook, computer tutorials, procedures.
5. Forms – One source responsibility, simplify, input from all groups.
6. Training – More extensive training across groups, including Information Management.
7. Finance and Permit Processing – Coordinate fees, late payments, penalties, fines.

Benefits – Expected benefits of implementing the above recommendations would be:

1. Keep permitting staff informed of past and current policies, thus expediting the permit review processes and promote consistency.
2. Consistent and published policies and emissions estimation methods minimize misunderstandings.
3. Provide the regulated community with a better understanding of how the permit review process works. In return, the regulated community can submit a more complete permit application.
4. Provide better coordination among permitting teams, IM, planning and source test groups. Policies are more consistently applied by various permitting teams. IM can produce software support in a timely manner.

CONCERN #3 – **Permit Structure and Facility Permits.** Until recently, AQMD permitting comprised single permits for equipment called the permit unit. The RECLAIM and Title V programs brought about the concept of the facility permit. The Title V program especially, has required tremendous resource shifts within AQMD engineering to process these complex permits. The result has significantly impacted the time and resources available to process traditional permits. Small-scale efforts to contract work outside has not substantially improved the situation.

During the evolution of RECLAIM, equipment was further broken out according to "device" and previous permit conditions were rearranged and rewritten in a standard set of conditions. This philosophy was carried over to Title V and results in an increase in the amount of work required to incorporate existing permits into facility permits. While individual device listing may have its merit for the VOC RECLAIM program (had it been implemented) because of source diversity, it is not necessary for the NO_x/SO_x RECLAIM program or for Title V, because NO_x and SO_x devices are in most cased separate permit units anyway.

Another source of excessive engineering effort is related to the complexity of the software used to process facility permits called the Facility Permit (FP) program and the soon-to-be-released Facility Permit Processing System (FPPS). These programs are designed to query a large number of parameters using a database format. The permit conditions module is especially complex. The question becomes one of information cost versus usefulness. It was reported that engineers sometimes spend more time working on the facility permit program than doing emission calculations and permit evaluations.

Recommendations – Recently (November 1998), the AQMD permit streamlining team submitted a proposal to reduce the effort and time to process Title V applications for Group B and C facilities. The proposed solution was to staple existing equipment based permits and to add EPA requirements such as monitoring, record keeping, and

reporting (MRR) conditions. The Permit Streamlining Task Force approved the proposal and recommended immediate implementation.

Along those same lines, we recommend that permit database information requirements be reviewed and simplified where possible. This is especially important for equipment description and permit conditions. It should be easy for an engineer to capture old data and eliminate reentry of data into inflexible formats. Recommended solution categories are:

1. Consolidated Permit Processing – One simplified program that includes both Title V and Non-Title V permitting. Prevent double entry of information.
2. Electronic Data Capture for Version Tracking – Enhance capture of wording and conditions electronically; capture final versions of each Title V permit for version tracking.
3. MRR and Rules – Capture monitoring, record keeping, reporting and rules electronically.
4. Version Tracking – Develop Title V version tracking for A, B, and C group facilities.
5. Standardized Conditions – Method to standardize conditions but retain flexibility.
6. Title V Training – Provide specialized software and processing training.
7. Permit Processing – Provide printing flexibility.
8. Inspector's View – Provides facilities more organized format, no need for flipping between sections.

Benefits – Expected benefits of implementing the above recommendations would:

1. Provide a permit format already familiar to the regulated facilities.
2. Provide a more user-friendly permit process software (SSPS) for permitting staff. The permitting engineer can could then concentrate on evaluating the permit, rather than spending time struggling with the complex support system.
3. Provide equal staff time among traditional permit and facility permit evaluations.
4. Provide better electronic data capture and the ability to track permit versions.

CONCERN #4 – **Management and Organizational Issues.** While permitting is one of the AQMD's primary functions, there is no one person in charge of the process. In addition, the efforts of those who manage the process are diluted by many other responsibilities. As a result, permitting is seriously impacted by policies and procedures established by various individuals or groups that may or may not be involved in permitting at all. Therefore, there is a need to have a group focused on permitting all the way through the management levels and to ensure all permitting related issues (i.e., NSR, toxics, CEQA, Title V, etc.) are coordinated through this focused group.

Another major issue is: What systems are in place to manage and prioritize the process, analyze performance measurements and thus assure continuous improvement? AQMD measures many internal and external performance parameters. However, even if the correct parameters are measured, if processes and procedures

are not in place as an integral part of the system to effectively use the measurements to track, manage and prioritize permitting, the effort to obtain the measurements is wasted.

One example of a measurement parameter that could be enhanced to better assist management of permitting activities is to improve reporting and tracking of time spent on permitting—and the Fee Study Group concurs. Currently, there are only a few charge numbers, and most entries are made at the end of each two-week period.

Another example that needs to be examined regularly is the way AQMD prioritizes its applications. The current 7/30/180-day prioritization practice may not have served the best interest of the AQMD nor the regulated community because of unrealistic expectations as well as recent changes in state law.

Recommendations — The AQMD Governing Board and top AQMD management should provide the driving force and unwavering support to implement a management system modeled after ISO9000. The goal would be to establish procedures and policies to manage the permitting process and measure and improve system performance. This is critical for effective management of the permitting process in terms of its ability to efficiently process and evaluate applications in a consistent, thorough and timely manner.

A brief summary of management systems and their applicability to the AQMD is presented in Section 5. The common thread running through management systems is the commitment to continuous improvement. Continuous improvement can only be realized by implementing processes and procedures that measure system performance and that have the flexibility to make changes to achieve organizational goals and targets. It is also important to audit system performance so that these important processes and procedures do not wither. Recommended solutions are:

1. Quality Management System – Implement a system that promotes continuous improvement.
2. Management Responsibility for Permitting – One person in charge of permitting and coordination of permitting issues; focused groups for processing of permits.
3. Resolving Permit Issues – Group to resolve permit issues as they arise.
4. Measuring Key Parameters and Monitoring the Permit Process – Tracking permit processing time and other activities. Time/motion study of AQMD permitting staff time. The amount staff need to match backlog can be established and adjusted to special projects and changes.
5. 7/30/180-Day Schedule Reevaluation – 120-day state mandate, intermediate time.
6. Technical and Management Training – Develop technical expertise and breadth.
7. Customer Service and Business Awareness – Develop customer focus and business sense.
8. Project Orientation – Engineers to be responsible for applications from start to finish.
9. Management By Objectives – Implement system for individual performance review.

10. Implementing Permit Streamlining Solutions – One person in charge of implementing.

Benefits – Expected benefits of implementing the above recommendations would:

1. Hold permitting staff accountable for job performance.
2. Provide time expended by engineers; thus, cost to evaluate permit applications can be more accurately measured.
3. Provide effective management system that can audit system procedures and promote continuous improvement.
4. Conform with state and EPA air quality mandates.
5. Provide a customer focus and business attitude towards permitting.
6. Staffing level based on backlog and time/motion studies.

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Section 1

INTRODUCTION

The Permit Streamlining Study (Study) is organized according to task as listed in the Request for Proposals (RFP). Section 1 of the Study introduces the purpose and summarizes the key features. Section 2 lists the current South Coast Air Quality Management District (AQMD) permit process and includes the results of AQMD staff and permit applicant interviews as required in Task 1 of the RFP. Section 3 lists the outside agencies and other organizations surveyed and the results of those surveys as required by RFP Task 2. Section 4 lists ideas gathered while conducting Tasks 1 and 2, as required by RFP Task 3. Section 5 lists specific recommendations, how they would be implemented, and their projected implementation schedule, as required by RFP Task 4.

1.1 BACKGROUND

The AQMD is a regional air quality regulatory agency responsible for ensuring attainment of the National and State Ambient Air Quality Standards (NAAQS and CAAQS) in the South Coast Air Basin and Coachella Valley. Equipment and process permitting is one of the major activities AQMD conducts to achieve and maintain necessary emission reductions.

However, because the South Coast Air Basin is designated as extreme ozone nonattainment of the NAAQS, thresholds for permitting are very low. As a consequence, AQMD receives approximately 11,000 permit applications annually. The permits vary in complexity and type and permit applicants vary in their level of sophistication. In addition, facility permits from the Title V and RECLAIM programs require significant AQMD permit engineering resources.

Air toxics programs (i.e., Rule 1401 and Clean Air Act Title III) and planning programs (i.e., CEQA and NEPA) add increasing complexity to the permitting process.

This combination of factors has created a large permit application backlog. The AQMD has implemented a variety of permit streamlining measures over the last several years. However, it is essential to continually improve permit processing, or the backlog and cycle time could ultimately increase.

1.2 PURPOSE OF THE PERMIT STREAMLINING STUDY

The AQMD commissioned the Study to evaluate existing permit processes based on specific evaluation criteria. Input was solicited from AQMD engineers, permit applicants, clerical staff and AQMD management. In addition, the Study evaluated other air quality agencies and nonair quality organizations to determine whether good ideas from these organizations could be effectively implemented by AQMD.

The Study's purpose was to evaluate existing systems, as well as evaluate proposed enhancements and current changes being implemented. By stepping back and viewing where the AQMD had been and the direction where planned changes would be taking the AQMD, the Study provides course corrections and objective recommendations.

1.3 STUDY RECOMMENDATIONS—BENEFITS AND NEGATIVE IMPACTS

Out of this investigation, a set of specific recommendations were formulated to make the AQMD's permitting process more effective. Effective was defined as enhancing emission reductions, reducing AQMD permitting effort, reducing permit applicant effort, and reducing permit processing time. These recommendations were divided into immediate, short-term and long-term implementation categories.

Any change to how a company conducts business has benefits (e.g., cost reductions, lower cycle time, emission reductions) and negative impacts (e.g., increase of resources, cost increase, shift of burden). Optimally, this change should maximize benefits and minimize negative impacts.

Study recommendations listed in Section 5 have been evaluated for benefits and negative impacts. This benefit/impact analysis enables the recommendations to be prioritized and ranked for future implementation.

1.4 IMPLEMENTATION OF RECOMMENDATIONS AND RESPONSIBILITIES

Section 5 briefly outlines implementation strategies for each recommendation and AQMD staff responsible for ensuring successful implementation.

Section 2

REVIEW OF CURRENT AQMD PERMIT PROCESSES

This section presents a review of current AQMD permit processes and results of interviews with AQMD staff and permit applicants.

2.1 PERMIT PROCESSING FLOW

The existing AQMD permit processing system can be divided into the following stages:

1. Incoming Applications
2. Application Validation
3. Prescreening
4. Data Entry
5. Permit Processing
6. Permit Approval by Supervisor
7. Permit Issuance

This flow is presented in Figure 2-1.

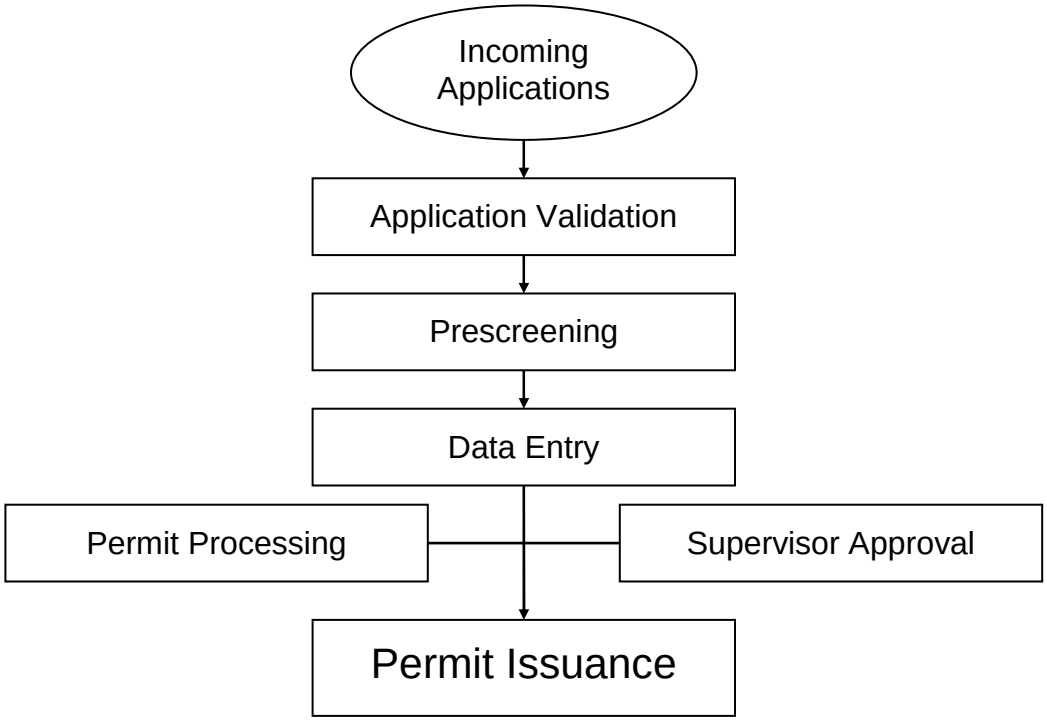

Figure 2-1. Permit Processing Flowchart

2.1.1 Permit Counter

Permit applications are accepted at the permit counter and are also received from applicants via mail. Applications are date-stamped, logged in the computer, and receipts are printed for applicants who hand deliver their applications. Electronic applications have not yet been received by AQMD. Minimum quality assurance/quality control (QA/QC) is performed for the applicants at the counter. Receipts are printed by the finance counter, which is located near the permit counter, and are given to the applicants. The counter is often staffed by a receptionist who has a sheet listing the AQMD engineer phone extensions to contact the correct AQMD engineer if applicants have any technical questions. However, it was noted that engineers are not always at their desks and that questions do not always receive immediate answers. The AQMD provides engineers with pagers. However, engineers report that they are seldom paged; therefore, these pagers are not being used.

Other AQMD staff manning the counter have varying levels of expertise and available resources at hand. In the best case, permit applicants' questions are answered accurately at the counter by a knowledgeable engineer. However, it has been reported that applicants have received inaccurate or no information.

2.1.2 Application Prescreening

At the end of each work day, permit applications accepted at the Permit or the Financial hand-delivered to the Permit ServicesSection on AQMD's fifth floor. Applications mailed from applicants are delivered daily at 9:30 a.m. Prescreening is typically completed by permit engineers who rotate daily into this position, although the rotation frequency varies from team to team. There is no team with an engineer or engineers specifically designated full time for prescreening applications. The prescreening engineer reviews the applications for completeness and generates a Prescreening Fee Assessment Report in the AQMD Permitting System.

The engineer performs the following steps during the prescreening process: (1) Check for completeness - 400A, supplemental forms, signature, check enclosed, MSDS sheet, (2) Make calls for clarification or additional information if necessary. Current policy is to make three attempts before rejecting applications, (3) Log into CLASS and complete fee assessment sheet and print report, (4) accept or reject application if fee is insufficient (less than 85% of applicable fee), (5) Complete rejection sheet with reasons for rejections and put in reject pile or accept application and complete 7/30/180 determination (check box).

The printout from the fee assessment sheet is used later by data entry to enter the BCAT/CCAT into the system as well as information on large or small business or if there is a penalty. At this point the system validates the information generated by the engineer and if there is a discrepancy, the matter is resolved later between the data entry person and the prescreening engineer.

If the screening is not passed, the checks are returned and no refund check is requested from the AQMD Finance Department. Currently, even though the 7/30/180 days criteria is officially in effect, most engineers do not perform this evaluation. Also, data entry into the computer during screening cannot be saved. Once an engineer logs off the computer, all data are lost. This may change in the future with the implementation of programs designed by Information Management (IM) to enhance the application data entry and tracking (see Section 2.3.3).

2.1.3 Data Entry

After prescreening, the applications are returned to Permit Services. Data such as BCAT and CCAT numbers require re-entry into the database. Checks are separated from the applications and sent to the Finance Department. Different colored folders are generated to identify application priority.

At the data entry step, an identification number is assigned to new facilities. An application number is assigned to the application and a folder is created to hold the documentation. The folders are color-coded based on the 7/30/180 application type. The check is accepted and the application is assigned to a department for review. An acceptance letter is sent to the facility, which includes the application number(s), team assigned and phone numbers.

The 400A computer interface consists of five tabs: Application, Equipment, R-461, Tracking, and Company. The applications are sorted according to each permitting department function. There are four staff members currently assigned to this task.

Labels for the application folder and a finance fee report are generated.

2.1.4 Permit Evaluation Teams

The AQMD's Stationary Source Compliance (SSC) Division is organized into "Teams" that include Major Sources/RECLAIM and Title V, Coatings, Public Facilities, Chemical and Mechanical, Refineries, Air Toxics, Service Stations and Neighborhood Commercial. Applications are assigned to one of these Teams during the prescreening process. For example, landfills are assigned to Public Facilities, spray booths to Coatings and so on. Similar policies should be applied to similar equipment, no matter which Team does the processing. However, it was found that policies are not always consistent between Teams. For example, best available control technology (BACT) for new portable internal combustion engines (ICEs) should be a catalytic converter, four degrees of retard (timing), turbocharged and aftercooled. However, some Teams approve permits for emergency ICEs without the catalytic converter. This inconsistency can confuse the permit applicant.

2.1.5 Application Distribution and Processing Workflow

Application Distribution

The Team supervisor distributes applications among staff according to: (1) workload and availability, (2) experience, (3) alphabetical designation of the facility's name, and (4) who has worked on the facility historically, etc. We have only found one Team that proactively tracks which engineer is assigned a particular application and incorporates an aging report. Other Teams primarily use manual tracking methods.

Processing Workflow

The following lists the actual processing tasks an engineer must perform to process application for conventional equipment permits. Additional tasks are required for the engineer to then work on the facility permit software program to issue a RECLAIM or Title V permit.

1. Initial Examination
2. Request for Information
3. Historical Research
4. Emission Calculation
5. Rules Analysis
6. BACT Analysis
7. Toxics Analysis
8. Emission Offset Analysis
9. Computer Entry
10. Supervisor Review
11. Revision

INITIAL EXAMINATION

The engineer performs an initial examination of the application folder. The examination almost duplicates the pre-screener's review. Form 400A, and Forms E-xx are reviewed for necessary information. The BCAT/CCAT identification is verified to be correct. The engineer decides whether enough information was provided to complete rules analysis, emission calculations, BACT, Toxic analysis, or emission offset analysis. The application is reviewed for any historical information (i.e. Was the unit in operation elsewhere, then bought by this facility? If it is a modification or change of condition is the current permit/application nos. identified?) The engineer looks for the fee evaluation sheet, and if found verifies the information on it.

Applications are sometimes incorrectly categorized for BCAT/CCAT. Applications that have been submitted bound together are separated into different application folders and given to different divisions or engineers. Sometimes not all of the information is included in each folder. Fee evaluation sheets, letters, calculations, and back-up information are often separated in this process.

Initial examination also consists of tracking down other documents submitted which include source test, CEQA, HRAs, ERCs, information submitted but placed in the wrong folder for grouped applications.

There is also the problem of applications for existing equipment operating without a permit. This is caused by poor planning, miscommunication, neglect, ignorance or disregard for regulation on the part of the applicant. These applications are typically much more difficult to process because they lack pertinent data not always apparent to the pre-screener.

REQUEST FOR INFORMATION

If the application cannot be evaluated because of lack of information or the information is unclear, the engineer will contact the application to request additional information or clarification.

This process can become tedious and lengthy for several reasons:

1. The applicant is not technically savvy, and therefore does not understand the request or does not know how or where to get the information.
2. The application is for an equipment modification performed by the facility itself, therefore applicant cannot get any information or predict emissions.
3. The equipment is operating without a permit and the applicant does not want to source test, nor get information from the manufacturer.
4. The application is a modification and no calculations were done in the previous permit files, therefore all calculations must be completed. Manufacturers may be out of business or no longer support the equipment.
5. The equipment was in operation outside of the AQMD and no information is available on the equipment.

Application evaluations are often delayed because of New Source Review (NSR), BACT and emission offset (ERC) requirements. Applicants are often unaware that their application submittal for basic equipment requires it be BACT-equipped and/or that emission offsets are required.

The request for information may become an iterative process. For example, additional information may be requested to complete emissions calculations, these calculations may show BACT, ERCs, and an HRA is required. The facility must then be notified and the engineer must wait for the facility to decide whether to cancel the project, reduce emissions elsewhere on site, reduce throughput or operating hours, buy ERCs, take a facility emissions CAP, change chemicals within the process or decide on BACT.

This process can easily become the most time consuming process, especially for modifications or change of conditions. Modifications and changes of conditions

become difficult because manufacturers usually supply information for new equipment, but this information may not be available for older or modified equipment.

HISTORICAL RESEARCH

Historical research is examination of AQMD records for modifications, related permits at the same facility, equipment sold between independent facilities, change of conditions, change of location, change of ownership, etc.

Liberty

Historical documents (plot plans, hearing board documentation, old permits, etc.) are scanned into image files that are stored in a server. The scanned images are available on designated workstations and recently, engineers' desktops via the Liberty program. Information is requested by the engineer via e-mail to the records request division. Records loads the requested information onto "jukeboxes". Data from Liberty can be printed for reference. Currently, data are retained as images only, not characters, and are electronically transferred. Optical Character Recognition (OCR) capability would be required to allow for electronic character transfer.

Because information is stored by application or permit number, the original information must be tracked from application to application until enough information is gathered to verify the basis for the current emissions to be compared to the modification or change of conditions, etc.

This process can make relocations, modifications or changes of conditions require more time than applications for new equipment.

Historical research can be streamlined by storing information based on equipment identification numbers instead of permit or application numbers. It is a tedious process to request an application in Liberty only to find it is a modification and to have to continue to make additional requests for information until a sufficient level of information is available or to find at the end that not enough information is available in the archived files.

Transferring the Liberty system to intranet to provide more users access will make it easier for information to be obtained. The AQMD also plans to buy larger jukeboxes that will allow all applications to be accessed without requesting the information be uploaded by Records Request personnel.

EMISSION CALCULATIONS

Emissions calculations are completed by several methods:

1. Source test information is preferred and often required for larger or unusual equipment.

2. Historical source test data on similar models or types of equipment.
3. Manufacturer emission information.
4. AQMD/CARB/EPA default emission factors.
5. AQMD/CARB/EPA emission estimation methods.
6. Mass balance.
7. Best engineering estimate.

Emission calculations can become lengthy for equipment that are grouped together like process tank lines. The process becomes even more involved for modifications or replacements because of the comparison to the current emissions for NSR.

Emissions may need to be recalculated as facilities modify parameters (e.g., operation time, throughput, chemicals, overall facility emissions) to avoid lengthy or adverse monitoring, reporting, record keeping conditions or processes such as HRA, ERCs, or BACT that would be triggered by the information originally in the application.

This process can become tedious for relocations, modifications and changes of equipment because the calculations may be novel, where manufacturers normally have information for new equipment.

The time required to calculate emissions can be reduced in a number of ways. Access to more emissions calculation techniques through the internet and shared methods in a permit processing handbook can speed the choice and completion of calculation methods.

RULES ANALYSIS

Rule analysis is a fairly simple task. However, because Rules are often open to interpretation and need specific policy decisions to apply to specific equipment, this process can become difficult. There have been instances when industry has argued that no one can meet the Rules as published.

This process also becomes difficult for existing equipment operating without a permit. These applications are very low priority and have sometimes been held for years. Some Rules are based on equipment manufacturing date or installation date, as well as the date the application was deemed complete.

Permit Conditions are developed based on rules analysis and emissions calculations. The conditions developed based upon rule analysis is based on team, manager, or processing engineer's policy. Applicants also complain that similar equipment is treated differently by different teams. Applications submitted for similar equipment within the same year or quarter are sometimes given different conditions.

The time spent in rules analysis can be reduced by standardizing polices and posting them on the intranet by topic and date. All policies should be retained because the engineer may need to refer back to old rules and policies for older applications.

BACT ANALYSIS

BACT analysis is often difficult because it is based on policy and current control "achieved in practice". Divisions have different polices, and BACT is updated by memo. The public also has access to an out-dated BACT Manual published by the AQMD (last revised 1995).

Applicants have to purchase the BACT Guidelines or download them from the AQMD web site. This guidance document is outdated. New BACT determinations are made by the AQMD but not disseminated, except internally, through written memorandums. Applicants often plan for construction or enter contracts with companies to supply them equipment. Because the current BACT is not public, the applicants sometimes have to redesign, rebid and perform additional research, to meet the current BACT. Sometimes the redesign or cancellation of the original design costs the companies additional manhours, holding fees, reshelving fees, blueprint fees, consultant fees, deposits, certification fees for drawings, etc.

Applicants complain that applications are completed based on the BACT Manual or by conversations with AQMD personnel, and that this is contradicted later by the processing engineer.

Applications are rejected because BACT has not been submitted with the application. Applicants complain that BACT was not requested under the BACT Guidelines or conversations with the AQMD, therefore the fees and time it took for the application to be denied is a business loss that could have been avoided if policies were clear or public.

If the engineer or supervisor decides to wait for information, then the application is shelved until the applicant determines what BACT to use and submits an application.

Applicants may decide to reduce operation hours or throughput, or chemicals used, therefore emissions need to be recalculated.

Reasonable Available Control Technology (RACT) is sometimes required for existing equipment. RACT may be difficult to determine because of the amount of space available, or general configuration of old equipment.

TOXICS ANALYSIS

Analysis for air toxics emissions is based on the policy of the unit, manager, or processing engineer. Some applications are evaluated for all toxics and others are evaluated for some or none of the toxics. Toxic emissions from natural gas combustion, process tanks or aggregate processing are not always considered.

In addition, toxics analysis may not have been completed in previous permits or applications, so modifications that do not change emissions can be held up because the toxic evaluation reveals that the unit is in violation.

Applicants may decide to reduce operation hours or throughput, or chemicals used, therefore toxics emissions need to be recalculated.

Tier I and II toxics analyses are typically not difficult for the engineers to prepare. However, when the applicant submits a Tier III or IV HRA, a computerized tracking mechanism tied to the application number would reduce processing engineer uncertainty relative to review by the modeling section.

EMISSION OFFSET ANALYSIS

Analysis of emission offsets is often a mystery to the applicant. Many applicants have no idea the current level of their facility's total potential emissions. In addition, the AQMD's records for the facility's potential-to-emit are not always accurate, partly because facilities not know how to assess this information or are even aware this information is important, the permit process is held up until they are educated about the process and purchase ERCs, accept a facility limit or reduce emissions elsewhere in the facility.

Applicants may decide to reduce operation hours or throughput, or chemicals used or a facility emissions cap, therefore, again emissions need to be recalculated.

COMPUTER ENTRY

The CLean Air Support System (CLASS) is a suite of programs developed to support the permit process. CLASS is used to process all applications to some degree. RECLAIM and Title V applications only use CLASS for the NSR module. The Facility Permit (FP) program—soon to be replaced by the proposed Facility Permit Processing System (FPPS), processes the remainder of Title V and RECLAIM permits. CLASS consists of several parts: Download, Computer Assisted Permit Processing System (CAPPS), Upload, NSR, and Permit. In addition, Liberty (a program that makes scanned images available), is also used by engineers to view past permit activity.

Download — The permit engineer evaluates the applications by first downloading the application file from the computer. The download function downloads the application from the network database to a local desktop. The downloaded file already contains some data entered during the prescreening process, such as the fee and 400-A data.

CAPPS — CAPPS is a DOS-based program that is scheduled to be migrated to a Windows environment-. CAPPS consists of several parts: 400A Information, Fee Information, Automated Emission Inventory System (AEIS), Permit Wording and Conditions.

1. Facility Information - 400A information is entered into the database.
2. Fee Information - Fee information is entered into the database.
3. AEIS - Average emissions, average operating hours, and applicable rules are entered into the database.
4. Permit Wording and Conditions - The equipment description is added to the database through a Microsoft Word interface. Permit conditions are added to, or retrieved from the database. Printing options are available from this menu.

Upload — The information that is added through CAPPS at a local desktop and is uploaded to the network (INGRES Database).

NSR — NSR affects all permits for new, modified or relocated equipment. This automated system includes the following processing activities:

1. ERC administration and tracking
2. Priority reserve account
3. Administration
4. Emission calculations
5. Required offset calculations
6. Application of available ERCs
7. Applicability of emission-based requirements
8. On-line supervisory approval

Permit — After the supervisory approval is granted, a permit number is issued. The permit application allows the permit number to be downloaded from the network into a desktop computer.

Access to the CLASS system is restricted to periods when the network is available or stable. CLASS is maintained in the Central Information Repository, which is supported by the INGRES Database Management System (DBMS). The INGRES DBMS provides relational data management and supports the industry-standard Structured Query Language (SQL). The CLASS system needs to be reset by IM or CLASS personnel when the network is interrupted or INGRES becomes unstable. IM and/or CLASS personnel are available for consultation and to correct problems from 7:30 a.m. to 5:30 p.m. Tuesday through Friday.

For equipment permits and facilities not subject to RECLAIM or Title V, Permit wording is entered using Microsoft Word. Editing and QA/QC can be completed in Microsoft Word. The macros that merge the permit templates, permit wording and conditions into a Microsoft Word document for printing, strips the formatting of the permit wording document. Because of this, permit engineers are asked to not format the permit wording with numbers or indentations, but to use tabs. All computers have been updated from Microsoft Word 2.0 to Microsoft Word 8.0 for Office 97.

Permit conditions are entered through the CAPPS interface. The interface allows default conditions to be entered, edited and stored. There are no editing or QA/QC functions within the CAPPS interface. Spelling and grammatical errors have been observed in permits that have been issued and archived in the Liberty system.

Permit wording, conditions and engineering evaluations are not captured by the current permitting system. The permit wording and conditions are stored on the hard drive of engineers' desktop computers in Microsoft Word. The permit itself can be saved electronically. The engineering evaluations are stored in Microsoft Word and Excel files. Future support programs under development by IM, scheduled for implementation sometime in 1999, may alleviate this loss of data problem (see Section 2.9.1).

Hardcopies of this electronic information are scanned and stored in the Liberty system—a redundant process. The information is already electronically stored on desktops, then manually scanned (which takes time) and is retyped when modifications are requested by applicants. If the electronic information was captured and stored during the permit process, scanning would be alleviated, and information would not need to be re-entered for modifications.

Computer entry is slow because CLASS and its components are DOS-based programs that do not have the QA/QC and data entry tools available to newer Windows based programs. Information is loaded from and to the INGRES database.

Any changes to the 400A, emission calculations, operation hours, fees, etc. require that information to be uploaded again to the INGRES database which cause operation hours in NSR to be erased and potentially need the emissions in NSR to be re-entered to recalculate the emissions.

ERCs are often triggered by automatic calculations in the NSR program. If facilities change operating hours, apply BACT, take a facility emissions cap or alter throughput to relieve this problem, then data must be re-entered and re-uploaded.

Computer entry is inefficient because the current programs are outdated and do not perform up to original expectations. Modules can be added to CAPPS to provide standardized conditions and wording, but only a few modules were created. Information has to be re-entered, or is not saved between tasks.

SUPERVISOR REVIEW

Supervisors and Senior Engineers review the application and return corrections and additional policy information to the processing engineer to correct or modify the application. There is time lag as the application is placed at the bottom of the supervisors in box.

Some teams have weekly coordination meetings. Such meetings would serve to highlight priority applications. In addition, team managers should direct supervisors and

senior engineers to make reviewing and returning applications to the processing engineer a priority.

REVISION

Revisions to conditions and wording are simple. Any other changes to emission calculations, operation hours, fees, etc. require computer re-entry, modification and uploading. Any uploading requires re-entry of operation hours into NSR, and if the operation hours change, then the emissions must be re-saved to update the emissions calculations within NSR. Each revision other than conditions and wording is equivalent to re-entering all information.

Any revision also increases the amount of supervisor review time and travel time between the engineer and supervisor.

BOTTLENECK ANALYSIS

It is very difficult to determine how long it takes an engineer to complete any given permit process. The time varies across equipment type, facility location, facility size, technical ability of the applicant, environmental awareness of the applicant, and difference of policy of within and between units.

A limited “time-motion” study was performed to estimate the time it takes engineers to complete tasks. This information is not currently collected by the AQMD on an ongoing basis. The AQMD needs to conduct this type of study because an accurate bottleneck analysis can not be prepared until this is completed.

To develop the limited processing engineers’ time analysis, we created a worksheet and polled engineers and AVES staff that have worked under contract to the AQMD as permit processing engineers. The absolute hours required to process a permit will vary widely depending on the type of equipment, the engineer and the type of permit application. The results are listed below sorted by the percentage of processing time.

Table 2-1 Percentage of Processing Time

Task	Percentage of Processing Time
Request for Information	19.10%
Emission Calculation	13.84%
Toxics Analysis	9.12%
Supervisor Review	8.98%
Rules Analysis	8.70%
Historical Research	8.34%
Initial Examination	7.59%
Computer Entry	6.97%
BACT Analysis	6.67%
Revision	6.40%
Offset Analysis	4.27%

Combination of Similar Tasks

Combined Task	Percentage of Processing Time
Rules Analysis (including Toxic, BACT, Offset)	28.77%
Information Request (Applicant and Historical)	27.44%
Emissions Calculations	13.84%

Rules analysis can be broadened to include not only the analysis of the rules but also the calculations and tasks governed by the rules, such as toxic, BACT, and offset analyses. Toxic analysis can also be split between rules analysis and emissions calculations because much of the toxic analysis can be calculations and modeling. However, sense the most complicated toxic calculations and modeling is reviewed by the HRA or Toxic Units at the District, toxic analysis was combined with rules analysis.

PERMIT PROCESSING OBSERVATIONS

The following permit streamlining study staff preliminary observations were made after interviewing AQMD staff engineers and following the application workflow from receipt to permit issuance.

- Permit engineers are less-than-enthusiastic about the pre-screening assignment.

- Application pre-screenings are not completed in the order they are received, but by their level of difficulty. “Difficult” files are left for the next pre-screener and often remain for several days before they are addressed.

- Very few applications are rejected (92% are accepted according to information gathered by the Fee Study) although many applications do not have the required information on Form 400A or 400-Ex forms, or the forms are not completed

correctly. AQMD engineers have reviewed applications even when the type of equipment is not designated on Form 400A.

- Fees are often incorrectly assigned because the device type is incorrectly assessed due to insufficient information.

- Fees are often incorrectly assigned because the modifications are completed between the prescreening stage and the application evaluation stage. (If an applicant starts or completes construction, the permit processing fee is 150 percent (150%) of the amount set forth in the Summary Permit Fee Rates tables.)

- During each step, there is no tracking method to quickly and easily locate the applications. Applications can be tracked by the last entry into CLASS, but applications can be easily transferred between engineers or supervisors. Currently, the AQMD is developing a more robust tracking system (see Section 2.9.1 for future program development by IM).

- Data must be entered twice. The data entered by the pre-screening engineers should be able to be retained in the database while doing the pre-screening evaluation. These data should be able to be downloaded again for other uses.

- CAPPS is not flexible. The CAPPS Migration project under development by IM should alleviate this problem.

- The AQMD receives approximately 11,000 applications per year. There are only 60 permitting engineers performing permit evaluations. Therefore, each engineer must process approximately 180 permit applications per year (11,000/60). However, many of these applications are change of ownership, pre-certified equipment and other applications that are easily processed. A more representative range of "normal" applications processed would be closer to 120-150/yr.

- Engineers work at their own pace and a system is not in place that ensures accountability. The time required for an applicant to receive a permit is determined by the permitting engineer assigned.

- Applications are not always assigned to engineers with the working knowledge or experience with that particular type of equipment. Inexperienced engineers have written permit conditions that cannot be complied with and/or are illogical.

- Source test reports take too long to be evaluated (exceed 30/180 day limits).

- There is no tracking system for source test reports, health risk assessments or plans. Applicants often complain, "We already sent the report, why are you asking for it again?" (An enhanced source test information management system (STIMS) is scheduled for implementation January 1998 by ASTD).

- Application evaluation has been delayed because of the BACT requirement. Applicants have submitted applications for basic equipment which is subject to BACT, without providing BACT or a BACT analysis. Many do not have the ability to choose or evaluate BACT.

- Application evaluation has been delayed because of the offset requirement. The applicants may require their management approval to purchase ERCs. Review and approval for ERC contracts is a time-consuming process among sellers, buyers and brokers.

- Application approval is delayed because of the public notification requirement.

2.2 EQUIPMENT, FACILITY AND REGISTRATION PERMITS

2.2.1 Standard NSR and Existing Equipment Permit Applications

Seven-Day Permits

Seven-day permit applications are assigned to permit services. These applications include change of ownership, negative air machines, and registered/certified permits. They are reviewed by permit services personnel, and entered into the INGRES database through CLASS, which is the permit processing computer program. The permit services supervisor approves the application and new permits. Seven-day permits cannot require a Rule 1401 evaluation, offsets, CEQA or public notification. In addition, letters of acceptance are not sent out for seven-day permits to avoid the confusion of arriving after the permit is issued.

30/180 Day Permits

The 30- and 180-day applications are assigned to permit processing engineers by the Team supervisor. The engineers then review the applications. Emissions estimates are reviewed, corrected or calculated. Rule evaluation is completed. BACT, CEQA, and NSR analyses are completed. The applicant is contacted if additional information, public notification, or offsets are required. The Source Test Division is contacted, if a source test needs to be reviewed. Planning is contacted if a Tier III or IV analysis was submitted with the application. The CEQA Section is contacted if CEQA is triggered.

After all information and offsets are gathered and the other departments approve source tests, CEQA and risk assessments, the information is entered into INGRES through the CLASS system. Reports and a draft copy of the permit are printed or a denial letter is drafted.

The application is returned to the supervisor for review and final approval. If the supervisor approves the application, it is returned to the engineer to print out a final three copies (file, compliance and facility copies). If the supervisor approves the denial letter, the engineer prints the letter on AQMD letterhead. If the supervisor requires the

application to be corrected, the application is returned to the engineer and is resubmitted for review and approval of these corrections.

Compliance and Finance Steps

The permit file is then submitted by the team supervisor to Permit Services, who then routes it to the Compliance Division for filing. Permit Services staff performs QA/QC on all conventional, non-facility, equipment-based permits before they are mailed out or distributed internally. If a permit requires additional fees, the facility copy is held by Permit Services until the correct fees are collected by the Finance Department. This step will be more critical after implementation of the new 85% fee policy. Once the permit is approved, it is signed and mailed to the facility.

A new permit processing program, called Small Source Permit System (SSPS), is being developed to handle equipment permits. SSPS will not use the CAPPS module of CLASS, but has an emissions estimation module that integrates AEIS and NSR calculations.

2.2.2 New Title V Permits

The applications are assigned to permit engineers by the Team supervisor. All current standard permits and applications are collected by the process engineers from Records Request, Liberty, and Permit Services.

After the engineers enter the equipment descriptions, the relationship between equipment and control technology is shown. The engineer correlates the conditions on the current standard permits with standardized conditions for Title V permits. AQMD and federal rules are then assigned to the conditions. Monitoring, Record-keeping and Reporting requirements are added to each device and a draft copy is printed.

The applications are then reviewed by the supervisor. If corrections are needed, the application is returned to the processing engineer. If the application is approved, it is sent to the Title V manager who is familiar with EPA standards. If corrections are needed, the application is returned to the Team supervisor and permit engineer to make the corrections.

After the application is approved by the Title V manager, the draft application is sent out to the facility to review. If the facility finds errors, the application is returned to the permit engineer to correct and the QA/QC process is started again.

After the application is approved by the facility, the application is submitted to the EPA for comment and review. Dialogue between the AQMD and EPA occurs until issues are resolved. The application is then returned to the permit engineer to make the changes that were agreed upon in the dialogue. The application is resubmitted to assume the QA/QC process.

IM is developing a Facility Permit Processing System (FPPS) to handle Title V and RECLAIM permits. FPPS has several modules including prescreen, conditions, emission calculations, toxic risk, applicable rules, engineer recommendations, supervisor approval, printing and viewing, and data archiving/permit revision.

2.2.3 Title V Modifications or Additions

If modifications to existing equipment or new equipment are added to a facility that has a Title V permit, then Forms 400A and 400Ex are submitted by the facility. The standard permit processes are completed, then the permit engineer makes the required adjustments to the Title V permit. The Title V permit is then submitted to the Title V QA/QC process. Once approved, the new Title V permit is sent to the facility.

2.2.4 RECLAIM Permits

If a facility is determined to trigger RECLAIM requirements by the AQMD or by self evaluation, the facility must mail a letter to the RECLAIM division and submit a fee that is equal to 10% of the fees required for all current permits held and applications in the permit process at the AQMD.

The applications are assigned to permit engineers by team managers and supervisors. As with the Title V permit applications, all current standard permits and applications are collected by the process engineers from Records Request, Liberty, and Permit Services.

The engineers enter the equipment descriptions and the relationship between equipment and control technology is shown. The engineer correlates the conditions on the current standard permits with standardized conditions for RECLAIM permits. AQMD rules are then assigned to the conditions. Monitoring, Record-keeping and Reporting requirements are added to each device and a draft copy is printed.

The applications are then reviewed by the Team supervisor. If corrections are needed, the application is returned to the permit engineer.

After the application is approved by the supervisor, the draft application is sent to the facility for review. If the facility finds errors, the application is returned to the process engineer to correct and the QA/QC process is started again.

Once approved by both the AQMD and the facility, the final permit is printed. RECLAIM permits are not reviewed by the EPA or the public.

2.2.5 Equipment Certification/Registration

The equipment certification/registration program was established to streamline permitting of specific types of equipment. If the equipment is on a pre-approved AQMD list and the applicant agrees to comply with a standard set of permit conditions, the

permit can be issued “over-the-counter” at the AQMD’s permit processing desk in the lobby. Equipment currently permitted through this system includes charbroilers (exempt from permitting as of January 1, 1999, but still subject to Rule 222), dry cleaning machines, small boilers, soil remediation equipment, abrasive blasting and control equipment, automotive spray booths, and certain emergency ICEs. Many parties have recommended that more equipment be precertified to allow applicants to have an expedited permit in exchange for choosing AQMD-registered equipment.

AQMD is also developing a program that enables an applicant to remotely apply for certified equipment, called RACER (Remote Application for Certified Equipment Registration). RACER provides a streamlined method to apply for an AQMD permit-to-operate precertified equipment and is scheduled for implementation late 1998/early 1999.

2.3 PERMIT APPLICATION TRACKING

The current AQMD permit tracking system can list where a particular permit application resides in the CLASS system for that particular application. The inquirer chooses the Permitting System module in CLASS, queries the application number, then double-clicks on the application number. There is also an engineering report used for tracking purposes. Each of the permit processing teams has varying levels of spreadsheet or manual tracking systems. In addition, IM prepares a list of all applications on a weekly basis from a comprehensive database that resides within the INGRES system.

However, it was reported during the AQMD staff interviews that the IM list is incomplete, inaccurate, and unwieldy. The process used for updating the database was reported as deliberate and methodical, not quick and easy. This was reported by IM to be related to computer security levels. Data update requests are typically transmitted by engineers who process them with limited security access to Permit Services. Future modifications to the CLASS System by IM may alleviate this update problem.

The current network and database systems used by AQMD have various levels of security that prevent changes without proper management approval. The current system was created to prevent accidental modifications or modifications that may disrupt or contaminate the database. For example, if the address of a facility is changed by a permitting engineer, then the Facility ID may need to be changed or the alternate address may have a separate Facility ID. Such changes could corrupt the billing and emission databases.

The security measures create extra steps for making changes to the database. For example, lists given to managers of outstanding applications are sometimes duplicates of those already completed or transferred, but this is not reflected in the tracking system. Such changes need to be made by IM or Permit Services (who have security clearance). Permit Services staff routinely make changes to the CLASS system upon receiving a request from a Senior Engineer, AQAC Supervisor, or engineer. IM staff also make changes for requests documented and routed through Permit Services.

One manager complained that even after requests are made, updates and corrections requested by him for his list of outstanding applications are seldom implemented. Modifications to applications that have been approved are also stalled by this process. However, some errors are caught by the engineer, supervisor or Permit Services after an application has been approved by the supervisor, but prior to the permit being sent to the facility. These errors are difficult to correct.

2.3.1 Locating Applications within the Permit Process

Tracking the time spent (see Section 2.3.2) and the location of each permit are related activities. Locating and evaluating the status of any application requires effort and time. An application can be tracked by the Permitting System to a particular department or even an engineer within a department. Because applications are transferred between engineers and between the supervisor and assigned engineer, its exact location cannot be determined, only the location of its last database action. The inquirer must contact the supervisor, engineer, or both. Even then, the contacts may be out of the office or the application could have been transferred to still another engineer or contractor.

2.3.2 Time-and-Materials Reimbursement—Tracking Time

Regulation III allows the AQMD to assess a facility's fees for Title V permit evaluation and for Rule 301(y), based on an engineer's time spent performing it. Currently, however, AQMD staff fill out timesheets every two weeks and usually use only a limited number of charge numbers (one to three). Given this time-keeping practice, there is no accurate way for AQMD to assess a time-and-materials fee to a facility. For example, the current practice of logging in an application folder, would not likely pass an external audit acceptable to a permit applicant. However, this deficiency could be addressed by the proposed application tracking system described in Section 2.3.3. A time-and-materials worksheet similar to that used by Source Testing staff has also been developed for Title V evaluations and would be another potential method for tracking time.

2.3.3 Information Management

Information Management (IM) is developing an automated application tracking system. The proposed tracking system includes many enhancements to the existing tracking system:

- A tracking number can be assigned immediately upon receipt of an application.
- A tracking number can be assigned to the check and forwarded to Finance for processing.
- For tracking a transferred application, IM has proposed an enhancement called a "handshake" whereby engineers must electronically accept an application before it can be transferred. This would ensure that an application is not lost via transfer, but would not solve the underlying problem of determining to whom "gray area" applications should be assigned.

- IM has developed an electronic timesheet that will allow an engineer to track the amount of time spent processing an application.
- Title V permits are often revised multiple times before being issued. This is necessary for a facility to keep up with changes in its operation. However, the AQMD must keep track of these revisions. Revision 1 might be in the EPA's hands, revision 2 might be with a supervisor, while revision 3 is being processed by an engineer. IM has developed a revision tracking program as part of the proposed FPPS.

2.4 PERMIT APPLICATION FORMS AND PACKAGES

Permit application forms and their accompanying documentation (i.e., application packages, plans, health risk assessments, MSDSs, source tests, CEQA documentation, plot plans, and equipment specifications) are how the applicant transfers pertinent information to the permit processing engineer. To date, nearly all permit forms and documentation are submitted in hardcopy form. In a few cases, applicants submit data electronically via disk or e-mail.

The backbone of the permit application process is Form 400A. All applicants must submit this form for initiating a new permit, a modification, a change of ownership, etc.

Other forms can include equipment-specific forms (400E-XX), a form for emission reduction credits, etc.

The 400E-XX series forms (22 in all) are used to supply equipment- and process-specific information. By and large, these forms are concise and functional. The gasoline station form (400E-11) is currently under review to determine whether the number of diagrams showing island configuration can be reduced to one. This is driven by the need to simplify Rule 1401. It is unknown whether other 400E-XX forms are currently being examined for Rule 1401 simplification. Currently, there is a proposal for a separate Rule 1401 Form.

2.4.1 Form 400A

Many comments were received on the Form 400A by both the AQMD engineers and the permit applicants. The current form is extremely compressed, with much added information (and more planned) and a small typeface, making it difficult to read. The most recent change included a reverse side for Title V information and a 400E forms list on the front. In addition, a new block of CEQA questions is in the planning stages for incorporation.

From IM and Permit Services perspectives, it is important to settle on a form and stick with it. Because this form serves as an interface and drives all of the background systems, it must remain unchanged so that continuous updates to the systems are not required.

2.4.2 Application Packages

Application packages that are received by the AQMD are often incomplete. Most often, this is caused by a majority of permit applicants who are unfamiliar with AQMD submittal requirements. Most facilities have only a single AQMD permit and only a small percentage of facilities submit more than one application per year.

If an applicant is not familiar with the AQMD permitting process, the attitude, "How hard can it be to fill out a form?" is maintained. What is not realized is that Form 400A should be treated as a transmittal sheet for the other information required by the AQMD engineer to process a permit application. Essential to the application are the Form 400E-XX series, emission factors or calculations, source test report, risk assessment calculations, BACT analysis, CEQA documentation, equipment specifications, site maps, plot plans and MSDSs.

A permit applications checklist can be found on the AQMD web page but it is not referenced by "Form 400A Application Instructions," "Form 400A," or "Form 400E" series. The reverse side of Form 400A has a Title V submittal checklist.

Many other agencies have a comprehensive, integrated permit application package (with instructions) that ensures the agency will receive the required information. If information is left out of the application package, the application is rejected.

2.4.3 WARP II and Electronic Application Submittal

The Web Actuated Request for Permits (WARP) system provides a method to facilities wanting to apply for AQMD permits via the internet. The original WARP program was used for pilot purposes. WARP II, the system currently under development by IM for full implementation, was originally scheduled to be introduced December 1998.

WARP II allows permit applicants to complete Form 400A and the accompanying Forms 400E-XX on-line. Forms 400-E-1 through 400-E-20 request specific information for the device(s) and are categorized by equipment type. Form 400-E-GI is designed for equipment types not found on Forms 400-E-1 through 400-E-20. However, the WARP II system does not include Form 400-E-GI, because the wide diversity of possible equipment submitted with this form prevents simple fee verification calculations.

Applications submitted via WARP II will be reviewed and approved for processing by an AQMD engineer. If the application is approved, the information will be uploaded to INGRES and processed in the same manner as other standard permits.

There are many advantages to an electronic data submittal system.

- An application number can be assigned immediately.
- A fee module will calculate the correct fee after the application has been completed.

- There is less potential for incomplete applications.
- There is less potential for data transcription errors. The AQMD engineer can review and implement the application electronically.
- Fees could also be paid electronically through electronic fund transfers or credit card authorization.
- The applicant can check on the status of the application through the WARP II interface.

Other application information such as MSDSs, plot plans, risk assessments, source tests and CEQA will still require hardcopy review. However, emission calculations and word processing files can be transmitted via e-mail. In addition, traditional hardcopy documents such as plot plans and MSDSs are becoming more frequently available electronically.

An electronic permit application submittal is being implemented by a number of other state agencies and is a promising way to streamline the permitting process (see Section 3).

2.5 FEE STRUCTURE AND EQUITY STUDY RECOMMENDATIONS

2.5.1 Alternate Permit Fee Schedule

The Fee Structure and Equity Study Team determined whether fees charged by AQMD for permit processing and annual renewal were equitable for both the AQMD and for the facility. For example, the Fee Study Team found a nearly $10MM shortfall between revenue and expenditures for permitting for fiscal year 1996/1997.

The Fee Study Team's recommendations could affect the permitting process in several ways. A simplified fee structure would translate into fewer permit application fee errors. Application fee errors are a major cause of applications being rejected. Charging more in application and renewal fees to make up for the shortfall would have implications on how facilities view the permitting process—expectations could increase, more attention to paying the correct fee, etc.

2.5.2 Checks

The Triennial Audit found that checks submitted with applications were not always immediately deposited upon receipt at the. From a fiscal standpoint, the delay in processing application checks is questionable and has resulted in instances where checks were held longer than the expiration time shown on the check, requiring the customer to reissue the check. From a permit processing standpoint, the delay also causes problems. When a check remains attached to an application, it signals a shortfall in fees or other application problem.
By processing application checks immediately, as recommended by theTriennial Audit, the financial aspect is removed from the application permit process. This is very important in speeding up the process of getting the application to the permit processing

engineer. The major disadvantage is that fees would have to be reconciled either before the application is accepted or before the permit is issued.

2.5.3 Time Spent on Applications

The Fee Study Team has had difficulty determining the actual time spent on each type of permit application. The difficulty in tracking the time spent on each type of permit application is directly related to the difficulty in tracking the time spent on any single permit. Because the engineers in each division did not know the actual time spent on each application, they estimated this time subjectively. The Fee Study Team recommended that AQMD engineers log the amount of time spent processing an application by entering the application number and associated hours on their timesheet on a daily basis. This would also have the benefit of available BCAT/CCAT information for analysis.

Applications have been put aside by AQMD staff because of their difficulty or political nature. Engineering Services contractors were assigned applications for permits to operate that were submitted in 1994 for combustion equipment that have been in continual operation even before the submittal date and have still not been source tested as required by AQMD rules.

The length of time that permits are held without evaluation hinders an applicant's operations. Applicants have installed or begun construction of equipment because an evaluation was not started until a year after the applications were submitted. Fee problems are also developed by this delay because the applicants must now be penalized 50% of the amount set forth in the Summary Permit Fee Rates tables. No real conclusions can be drawn by the subjective time estimates of the engineers within each Team. For any real analysis of the Fee Structure and Equity Study, a quantitative analysis of the time spent on every permit application is needed.

2.6 AQMD PERMITTING STAFF INTERVIEWS

Table 2-2 summarizes the results of interviews with eleven AQMD permit processing engineers and three permit services representatives. Interview forms for each permitting staff are presented in Appendix A. The comments presented are those of AQMD staff or of their attitudes. No judgment regarding the validity or accuracy of AQMD staff comments is made at this time by the authors.

2.6.1 Computer System

- The computer network "goes down" a lot.
- The NSR System is very difficult to use.
- Engineers can get stuck in the middle of a task.
- The CLASS system is slow and Information Management (IM) is slow to respond with corrections. For example, fees have not been updated although the rule was

amended in July 1998. IM does not want teams creating their own tracking systems although several have done so.

- Only a supervisor can print a final RECLAIM permit from his/her computer. The system is locked from engineers. Also, once a supervisor approves a permit in the CAPPS system, it is locked and it is impossible to open the system and fix a mistake. IM must be called or the permit is retyped.
- A possible solution is to only print RECLAIM facility permits once a year with all changes made during the year at that time rather than reprinting every time the applicant makes a change.

Table 2-2. AQMD Engineer Responses To Permit Streamlining Survey

What aspect of permit processing is most time consuming?

Response	Number of responses
NSR	1
BACT	3
Getting info. from applicants	3
Prescreening	1
Public Notices	1
CAPPS	1

Has preprocessing and prescreening reduced your permit processing time?

YES	3
NO	6

Note: Yes respondents qualified their answers. One engineer stated, “only if the prescreening engineer is going to be the permit processing engineer” does prescreening save time. Another qualified by saying, “it only saves time if strict policies are implemented and followed and lots of applications are rejected.”

Please describe other problematic areas in terms of permit processing.

NSR	3
Computer problems (system goes down, locks up, hard to use)	3
Source Test Review is time consuming	3
CAPPS	6

Old CAPPS system worked better, more data entry needed now, too much cutting and pasting.

2.6.2 The Application Process

- Getting information from applicants is one of the most time-consuming aspects of permitting process.
- Small sources should be directed to Small Business Assistance more often as the applicants are the ones that have the most trouble filling out the applications.
- The new 400A form has lots of problems. AQMD should resume using the old 400A form and the old 400A booklet on how to complete it.
- Problems with the NSR system include: balances not being updated and only two NSR staff engineers having access to the system.
- Source test reports take a very long time to review (up to one year). Several Teams use their own "in-house" expert to review source tests. A possible suggestion is that each Team have a source test person dedicated to these reviews.
- There may be a brochure available for Small Business Assistance which outlines the permitting steps.

2.6.3 Prescreening

- The BCAT/CCAT system is used only for determining fees and for statistically tracking the number of various applications received. The system is too cumbersome.
- Assignment of 7/30/180 days for application review does not work because by default, almost all applications receive 180-day assignment and, hence, lowest priority.
- The three phone call system to the applicant is unworkable. The engineer can't get information anyway. The engineer should be either assigned to that application right away or the package should be immediately rejected and sent back to the applicant.
- A tracking system is needed to determine the status of an application. (Much of the staff are unaware that limited tracking ability resides within CLASS.)
- The rejection form letter does not have enough space for all necessary comments. The letter indicates that the applicant was contacted three times, but that is often not the case. The policy is not being enforced.
- The old permit processing handbook should be updated and all engineers should be trained.
- The CAPPS system makes customizing permit conditions difficult.
- The 85% fees policy will not work. It will be even more confusing in prescreening.
- Some units have devised their own templates for "standard" pieces of equipment. Most engineers just use old applications that they have saved on their own computers.
- Engineers should be allowed to prescreen from their desks.
- Engineers are divided on prescreening policies. Some indicate that rejecting a lot allows those that are completed to be processed in a timely manner. However, many others indicated that they are putting off the inevitable and they should be accepted so the engineer can start contacting the applicant for the missing information.

- One or two full-time prescreeners may help streamline the system because they would be more consistent.
- No one knows how to process a RECLAIM change of ownership application.
- Institute a Rule 301 hotline to help people calculate fees.
- Engineers do not want to work the lobby desk or assist applicants. Team phone numbers are not answered.
- Engineers believe that they should limit the number of rejected applications.
- No one supervises the engineers in the prescreening room. They do not pick up where the previous engineer left off. Instead, they start with a new application package. They do not try to reconcile or recall applicants with missing data; therefore, problem applications may stay in prescreening until that particular engineer rotates back into prescreening.
- Several engineers indicated that prescreening has probably slowed down the process rather than expediting it.

2.6.4 Permit Processing

- Gasoline stations are processed through a specific module which can complete an application very quickly as long as the application includes all necessary information.
- It may be possible to create such a module for emergency ICEs.
- The new computer system requires a lot of typing and repeat typing. Type equations is difficult and time-consuming.
- Engineers should spend more time looking for compliance with BACT, ERCs and Rule 1401 rather than the rule evaluation (R. 401, 402 etc.).
- A Rule 1401 template should be developed which shows that all required calculations have been made (Maximum Individual Cancer Risk--MICR resident, MICR worker, Hazard Index—HI chronic and HI acute).
- Applications with public notices are very time-consuming. Nine letters and two notices are required. Some groups have administrative staff doing this.
- AQMD may go to electronic timesheets with more job codes. This would help track the number of hours spent on various applications.
- There is no electronic archiving of permit applications in the current system.
- The old “equipment-based“ permit style is easier for inspectors to use.

2.7 PERMIT APPLICANT INTERVIEWS

2.7.1 Applicants Surveyed

The purpose of this survey was to solicit suggestions and ideas from permit applicants representing a wide range of potential facilities needing permits. An initial survey was sent to 25 companies representing small, medium, and large businesses. The facilities included small wood furniture manufacturing companies, a pipeline, a large coatings facility, a landfill, and an oil exploration field. These facilities were selected as they represented industries that are served by various AQMD permitting Teams.

The first 20 companies were selected based on suggestions gathered from the Permit Streamlining Task Force members. Another five surveys were sent based on a random selection of applications recently submitted to the AQMD.

We telephoned all of the companies and then faxed a cover sheet with a brief description of the survey and a two-page questionnaire that they could return by fax. (A copy of the survey package for each interviewee is included in Appendix B.) A tally of survey results is presented in Table 2-3. The comments presented are those of permit applicants. No judgment regarding the validity or accuracy of the applicant comments is made at this time by the authors.

2.7.2 Applicant Survey Responses

Twenty-two applicants responded to the survey. For the most part, people have had good experiences working with the AQMD. One of the most frustrating aspects cited is the time involved in waiting for Permits to Construct. This makes it difficult for companies to plan for future facility expansions. Other frustrations cited include: forms are difficult to complete, inconsistent advice between different engineers, RECLAIM permits and compliance are difficult, inconsistent timeframes for the review and completion of applications.

Applicant suggestions included:

1. Put more technical data on the AQMD web page
2. Eliminate the RECLAIM program
3. Increase training for engineers
4. Improve outreach for small businesses

2.8 PERMIT SUPPORT SYSTEMS

Permit support systems have been described in previous sections, but are listed here as a summary recap. These are: CLASS (CAPPS, NSR) and FPPS/SSPS. In addition, network management and intra/internet access are briefly discussed as engineer support systems.

Table 2-3. Applicant Responses to Permit Streamlining Survey

Would you be willing to pay an additional fee for expedited permit review?

Yes = 13
No = 9

What percentage of the current fee would you be willing to pay?

5% to 25%
100% if the permit would be guaranteed within 45 days.

Have your ever used any of the following AQMD permitting services?

	Yes	No
Permit assistance desk/operator	9	14
Small business assistance	3	19
Registered equipment permit processing	3	15
WARP system	0	22
AQMD website	8	14

If yes for any of the above, what did you find helpful?

- Website is helpful
- Forms availability
- Quick responses to my questions
- Permit assistance/desk operator
- Easier to process/shorter wait period

Not Helpful?

- Website not clear enough. Hard to download Rule 1150 excavation permit info.
- Staff at permit assistance desk couldn't always help me or answer my questions.
- Permit assistance and registered permit processing.
- Obtaining copies of permits.
- Some precompleted registered equipment application forms do not have the correct permit fee information.

What aspect of permit application preparation is the most difficult/time-consuming?

- Emission calculations (11)
- Filling out forms
- Waiting for responses
- Technical information
- Fee and form determination
- Explaining the processes or equipment operations to AQMD

- Modifying an existing permit
- Gathering equipment data
- Rule 1401 analysis
- Permit review – don't know if they will approve the permit or not
- Preparing work description and monitoring plan
- Assembling all the required info. – manufacturers specs, flow diagrams, plot plans, and engineering drawings
- Regulation XIII and XIV MICR and BACT analysis
- Education of AQMD staff on specific industry processes and associated operational requirements.

What could be done to reduce time spent or the difficulty level of that portion of the process?

- Website publication of more AP-42 type information.
- Have more AQMD assistance with filling out forms.
- Send applications directly to engineer who will ultimately be issuing PC/PO
- Speed up process at AQMD
- Improvements in our in-house permit application and assembly policies and procedures
- Examples and guidelines for emission factors published by the AQMD. We are the experts on our processes, not the AQMD.
- Eliminate detailed analysis for identical equipment
- Tailor the permit application for the specific job or equipment

What is your biggest frustration with the permitting process?

- Time delays/waiting many months.
- If the fee isn't calculated properly, the entire permit package gets returned.
- The "never satisfied" request for more information by AQMD.
- AQMD personnel who cannot speak English clearly.
- Engineers keep getting distracted or pulled off permit evaluations for other priorities.
- AQMD review period is too long.
- Not having questions answered.
- Trying to find the right person.
- It's a black hole! We do not routinely get deemed complete letters. We currently have approx. 30+ applications pending at this time with some over one year old.
- The issuance process after a permit has been generated by the engineering branch is inordinately long and nebulous!
- I cannot estimate to my superior how long it will take to process our applications.
- AQMD staff unknowledgeable or right in implementing requirements.

What is the shortest amount of time it has taken to receive a permit?

2 days, 2 weeks, 2 months

The longest?

2 months, 7 months, years

The average?

2 months, 4 months, 6 months, one year

What, if anything, caused delays in the process?

- Getting information from source testing and equipment manufacturers.
- Not sure.
- Workload of the engineer (we have one engineer who gets all of our permits) and other entities and permits get higher priority even if they were submitted after ours.
- Getting permits assigned to engineers.
- Loss of permit by staff (location unknown).
- Supervisor/manager review.
- Typing.
- Mailing process.
- Fees are processed separately from applications. Our agency requires an invoice to process a check and checks are submitted to AQMD separately from our application package. The AQMD has difficulty matching the check with the applications.

Were the delays related to problems internal, external or with AQMD.

Internal = 14
External = 6
AQMD = 5

Has AQMD ever asked you to provide add'l information? What type of info?

- Site diagrams
- Manufacturers specifications
- Clarification of industrial processes
- Valve, fitting counts
- Process flow diagram/plot plan and a revision to the process description
- Information regarding equipment and operating modes
- Facility plot plans

How soon after you submit your application are you contacted by AQMD?

- 1-2 months, unless we call them first
- I usually call first
- We are not usually contacted by the AQMD unless they have a question. In fact, we do not receive letters that they have received our application.
- Months
- One month to one year
- Six weeks or more
- 2-4 weeks
- Sometimes no contact is made by the AQMD. We usually initiate contact.

- Usually never. The permit just arrives in the mail.

What, if any, have been specific areas in the permit process that continually produce problems or delays in your pursuit of permits?

- Small permit modifications are not given priority, but may be required by regulations.
- Complexity of rules.
- Dedicate certain engineers to the process and permits.
- Have other engineers dedicated to handling Title V, RECLAIM and other stuff.
- Streamlining the permit process, take advantage of trained outside permit processors, computerize the format.
- Several times our applications have been lost in the system. It seems to be somewhere after being logged in and before it reaches the engineer. Lack of communication between the permit engineers and the applicant has caused numerous delays. It seems that when the engineer runs into a problem or something he isn't sure about he sits on it for a while. At other agencies they immediately contact me and we resolve it usually within a few minutes.
- I think they could be remedied if the engineer contacted us as soon as he receives the application with the estimated date that he expects to issue the permit. Once he begins to work on the application if he would contact us with any questions or concerns and issue a draft permit for our review I believe most of the problems would be resolved.
- Workload of our engineer.
- Having permit process which requires application to go through multiple steps in multiple parts of the agency; e.g. permit receiving, completeness review, engineering analysis, modeling and permit issuance.
- Have the engineer who is assigned to the permit be responsible for the lifecycle of the permit from completeness review to mailing the permit.
- Prescreening process and overly long evaluation process.

Do You Have Any Additional Suggestions for Making the Process More Efficient?

- Streamline the permit process and take advantage of the trained outside permit processors.
- Computerize the format.
- Try to give verbal approval on simple or small applications and let formal approval be issued later.
- Reduce the complexity of the fee rule.
- Issue a one-page list of all application forms and equipment for which each application applies.
- More straightforward rules.
- Immediate assistance with fees and forms.
- Deal with all data requests at the same time (not separately).
- Have permit engineers ask only for the information that is needed and is reasonable.
- Eliminate the RECLAIM program.

- The applications go through a lot of hands before it reaches the engineer. I currently have applications that were submitted over 30 days ago and the engineer still has not received it. Also, after it leaves the engineer and his manager it goes through several levels of management for sign off. This seems very unnecessary. The AQMD should empower the managers thereby eliminating all these layers of bureaucracy.
- Add an on-line process to track permits which identify where the permit is in the process and what track it is on (30/90/180), who is assigned to the application, date received, date deemed complete, estimated issuance date.
- Issue a deemed complete or incomplete letter in a timely fashion.
- Work harder and smarter.
- All permit processing engineers should pass the CPP exam. And the engineers should follow the guidelines when they process applications.
- All engineers should have deadlines for processing permit applications. Use of CPP program. Use of pre-approved consultants/contractors used by the applicants at their expense and used by the AQMD to reduce the workload.
- I don't think it is that bad.
- Generally, we try to address permit issues through industry groups (SCAP) to ensure consistent results or avoid a re-invention of the process.
- Keep the number of persons handling an application to a minimum.
- Managers seem to take as long as they want to approve permits and correspondences. Revise management roles to improve oversight responsibilities.
- Assign the person who processes the application the duty of ensuring fee payment.

2.8.1 Network Management

The AQMD network and databases were created in-house by AQMD staff and with assistance from outside contractors. Over time, the network breadth has increased without expanding the network hardware capability. Between 1997 and 1998 the following were completed:

1. The network was reconfigured
2. An outside review was completed with recommendations for upgrading
3. All desktop computers were replaced with 486 or Pentium-based processors
4. All desktop computers were upgraded from Windows 3.11 to Windows 95
5. CLean Air Support System (CLASS) was revised and upgrades installed
6. Office 97 was installed or upgraded locally on desktop machines

These changes have improved the overall speed and stability of the network. IM has submitted a budget to provide for the growth occurring in the electronic growth of various programs. The plan projected 100 Megabyte (MB) capacity for network servers and the possibility of providing each floor with its own LAN. This money was re-allocated and these proposals to provide adequate room for growth have been delayed.

Permit Services still reports network stability problems in their area. From March 1998 through October 1998 there were thirteen network related incidents (areawide) and 21.5 hours of associated downtime (six hours during nonworking hours).

2.8.2 Electronic Access to Reference Material

The internet offers a wealth of material that is useful and updated; e.g., USEPA's AP-42. The AQMD library has a copy of AP-42, Vol. 5, 1995. The USEPA has an updated copy of AP-42 with references and proposed revisions. The hardcopy of AP-42 does not include the references or proposed revisions. The references are often needed to determine whether emissions factors provided in AP-42 can be used for a specific application or if the emission factors can be extended to similar operations. The proposed revisions provide a glimpse into the direction the USEPA is headed. This can assist in planning and also provides emission estimate techniques that may not be available elsewhere.

The AQMD also works in conjunction with the Office of Environmental Health Hazard Assessment (OEHHA) for guidance on risk assessment methods (Rule 212, Rule 1401 and Rule 219 evaluations). The Department of Toxic Substance Control (DTSC) also has guidance for health risk assessments and toxic chemicals.

Generic Material Substance Data Sheets (MSDSs) are available through the USEPA Office of Pollution Prevention and Toxics, NIOSH, and OSHA.

These and other government sites have newsletters and publications that can keep AQMD personnel abreast of issues that may be important to permitting, risk assessment or planning. Currently, not all engineers have access to the internet.

2.9 AQMD PERMIT ENGINEER INTERACTIONS WITH OTHER GROUPS

2.9.1 Information Management (Permit Records)

IM plays a key role in enabling the permit engineer to process applications. IM is responsible for creating and maintaining the network, databases and support systems (e.g., CLASS, CAPPS, NSR, STAR). In addition, IM systems such as Liberty must be accessed by the permit engineer to view prior permit records. Some permit records are stored on microfiche and access to the information pickup point is the Library which has limited hours of operation.

IM maintains Liberty (scanned images), administers Permit Records and maintains INGRES. However, plans are not sent to Permit Records and are not under the jurisdiction of IM, but instead are stored in a locker.

Permit processing has become increasingly dependent on electronic media. This dependence has been fostered by the need to become more efficient and save applicants money. However, to continue to reduce costs and comply with new

environmental programs and regulations, the dependence on electronic media will increase even more rapidly.

The key to advancing the electronic programs is the interaction between permitting staff and IM. The interaction has varied from little interaction with the permit staff in the update of NSR to active involvement of the Title V group in the development of the FPPS and SSPS software.

Three observations were made during meetings with IM and the permit streamlining personnel:

1. Consistent long-term representatives (actual users) from the Permit Processing Teams are needed to interact with IM over an entire project. IM has exhibited frustration that representatives from the FPPS/SSPS development and streamlining Teams were rotated so that the later Team representatives often questioned why FPPS/SSPS was structured as it is now. IM observed that FPPS/SSPS and other programs are designed based on structure and requirements requested by the previous FPPS/SSPS development and streamlining teams. IM stated that changes can be made, but it is not fair or possible for them to explain or justify assumptions and requirements given to IM by previous development and streamlining Teams. A recent proposal was made to not use FPPS to process B and C Title V permit applications (FPPS would still be used to process Group A facilities).

2. Because users, permit processing and streamlining representatives are not thoroughly familiar with IM systems, changes are made to forms or processes that IM use as a basis for electronic programs or systems. For example, WARP II and FPPS/SSPS were designed based on hardcopy forms provided by the AQMD to the public. Users, permit processing and streamlining representatives have changed these forms several times during this process, also some information that is required to correctly process applications is still missing from certain forms. This causes redundant programming or gaps in programming while policy decisions are being made.

3. The distinction between policy and programming requirements is not well understood by users, permit processing and streamlining representatives. In an interview, IM explained that programming and changes were held up because policy issues were not being resolved by permit processing and streamlining management. Many of the inconsistencies and problems in the electronic applications were caused by inconsistencies and problems in policies between permit processing and streamlining divisions and managers.

2.9.2 CEQA Review

The Legislature enacted the California Environmental Quality Act (CEQA) (Pub. Resources Code, δ 21000 *et seq*.), in 1970, one year after Congress enacted its predecessor statute, the National Environmental Policy Act (NEPA) (42 U.S.C. δ 4321

et seq.). Like the Federal NEPA, CEQA was conceived primarily as a means to force public agency decision-makers to document and consider the environmental implications of their actions.

CEQA applies to all governmental agencies at all levels in California, including local agencies, regional agencies, and state agencies, boards, and commissions. Rather, CEQA contains substantive provisions with which agencies must comply. The most important of these is the provision requiring public agencies to deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen the effects.

All "projects" constructed in California that may result in significant environmental impacts require a CEQA review. Significant impacts are emission thresholds that can be found in the CEQA guidance document and in Regulation XIII. Generally, the Lead Agency is the city in which the project is located. Occasionally, an environmental agency with jurisdiction over one of the potential impact areas can assume the Lead Agency role. The AQMD currently relies on the applicant to disclose the CEQA status of his/her project on Form 400A. The current Form 400A includes one question regarding CEQA applicability.

Documents required by CEQA include, among others, initial studies, negative declarations, environmental impact assessment documents, and mitigation monitoring plans. Environmental impact assessment documents are assumed to resemble the traditional environmental impact report format.

The AQMD is considering adding a CEQA applicability checklist form to the application package. Every applicant would be required to complete and submit this form regardless of equipment type. Under the proposed system, a CEQA form would be required to ensure that projects are not missed that may require CEQA documentation by either a city or the AQMD acting as Lead Agency. This new policy would require additional review by AQMD permit engineers because this form would be included in each application package. An extensive public outreach and This new policy would require additional review by AQMD permit engineers because this form would be included in each application package. An extensive public outreach and education effort would be required for instructing applicants on how to fill out the form.

CEQA can produce significant delays to the permit process, because AQMD engineers are not allowed to process applications until all of the finalized CEQA documentation is submitted.

2.9.3 Customer Service (Fee Issues)

The customer service representatives are the liaison between permit applicants and the AQMD staff. They assist with a wide variety of functions including: billing, processing refund checks, and maintaining facility accounts for other fees such as annual emission inventory fees. They are assigned to facilities based on the facility's last name. They

work with the applicant to answer questions regarding overpayment of permitting fees and/or emission fees.

A simplified fee structure would simplify the challenging job of the customer service representatives and reduce time spent by the permitting engineer with customer service on refunds or underpayments.

2.9.4 Air Toxics Team And Planning Division (Modeling)

Air Toxics

Permitting engineers complete the initial air toxic health risk assessment according to Rules 212 and 1401. The permit processing engineers are restricted primarily to Tier I and Tier II risk assessments. Some engineers also perform Tier III assessments and approve permit applications based on the results.

Prior to September 8, 1998 only carcinogenic risk assessments were completed. After September 8, 1998 chronic and acute noncarcinogenic toxic risk assessments were required. In Tier I, toxic emissions are compared to a look-up table for both carcinogenic and noncarcinogenic chemicals by species. Under Tier II, toxic emissions for carcinogenic, and chronic and acute noncarcinogenic risk are placed into linear equations along with values from Rule 1401 look-up tables.

In addition, before equipment can be excluded from written permit under Rule 219, the Tier I risk assessment must be completed. Equipment that fails the Tier I evaluation must be permitted. This will increase the application load of the permitting engineers.

If the equipment fails both Tier I and Tier II screening, a detailed risk assessment is required under Tier III or Tier IV. Tier III and IV risk assessments cannot be completed by the permit engineer because air dispersion modeling must be performed. The facility must complete the detailed risk assessment or have the AQMD out-source the risk assessment to contractors.

The detailed risk assessment is not evaluated by permit engineers, but is assigned to the modelers in the Planning Division. Depending on the complexity of the health risk assessment and the modeler's workload, the review can take an appreciable amount of time, sometimes months.

Air toxics health risk assessment issues can also impact Title V permits. This is the case when a facility voluntarily wishes to impose an air toxicant limit to fall below the public notification threshold for AB2588. The Title V permit processing engineer works with the Air Toxics Team engineer, and in some cases Planning, to construct a condition that can be attached to a specific piece of equipment for enforceability purposes. The air toxic emission limit thereby becomes enforceable and the facility is able to demonstrate their permanent emissions reduction.

This type of activity adds complexity and time to the Title V permitting process and also requires added engineering resources. However, this complexity will only increase as the federal Title III requirements (air toxics) are incorporated into the Title V permit.

Background -- Criteria Pollutant Modeling

Facilities must also submit air dispersion modeling to demonstrate compliance with ambient air quality increments. For example, emissions of large combustion sources that do not fall within the limits of the Rule 1303 evaluation table must be modeled. Dispersion modeling is submitted to the modeling section of Planning for review. Depending on workload, the modeling review can cause a significant delay in the permitting process. For example, if Planning is preparing an Air Quality Management Plan (AQMP) update or other significant effort, modeling resources are stretched thin.

Observations

- The revision of Rules 1401, 212 and 219 will increase the number of permit applications and the number of permitted units within the basin. Under Rule 219, if equipment fails Tier I, applications must be submitted despite whether or not the equipment passes Tier II screening or a refined risk assessment.
- Permits are delayed by the completion and review of the risk assessment, modeling or source test.
- Inconsistencies in exemptions or standards for requiring health risk assessment calculations, source tests or BACT increase the delay in permitting. Because the exemptions and standards are not published and not consistent between departments, each engineer must develop their own standard which will be approved, rejected or modified by the division.

2.9.5 Source Testing

Source testing is required for processing applications for Permits-to-Operate for equipment not having AQMD/CARB/EPA default emission calculations or are required by rule. Various AQMD Units have standards for determining when source testing is required. These standards are often unwritten and inconsistently applied between units.

When a source test is required to demonstrate compliance with an emission limit, a facility typically contracts with an outside firm to perform the source test and prepare a report. The facility then submits the report. Facilities have claimed their source tests were reported “lost”—disassociated from the application. The reason for this is that source tests, as with Rule 1401 refined health risk assessments (Tier IV), are typically not submitted with the application package and therefore not trackable.

To make matters worse, the source test reports, even if they are submitted with the application package, are separated from the package and sent to the source test section for review. This seems problematic from a tracking perspective according to interviews with permit processing engineers. IM is investigating the use of bar codes for

applications and accompanying documents for logging purposes. A bar code with application number on the source test report would make tracking the report possible.

2.10 CERTIFIED PERMIT PROFESSIONALS

Certified Permit Professionals (CPPs) are engineers and nonengineers who have passed an exam given by the AQMD. CPP classes are available through extension courses to prepare potential CPP candidates for the CPP test. CPPs must take an extensive eight-hour test to demonstrate their familiarity with AQMD rules and regulations, permitting proficiency, ability to prepare emission calculations (criteria and toxics), understanding of equipment processes, BACT, public notification and offset requirements.

For rapid processing of applications, CPPs are trained to calculate the correct fees, prepare thorough rules and BACT analyses, and provide all necessary technical data. An application submitted by a CPP must include a complete equipment description in permit wording format. CPPs are given limited access to facility information electronically through the AQMD web page after providing written authorization from the facility.

Applications submitted by CPPs were to be given priority for permit processing (but are not currently) because these packages are assumed "complete." Last year, approximately 300 of the 11,000 applications received by the AQMD were submitted by CPPs who noted the application package as such.

In 1997, 52 CPPs submitted 308 applications—nearly 70% were for major sources. Equipment types included:

- Control Equipment (20% of total)
- Spray Booths (20%)
- Emergency ICEs
- Printing Presses
- Abrasive Blasting
- Soil Vapor Extraction
- Underground Storage Tank Degassing
- Size Reduction Mills
- Kilns
- Fiber Processing Systems
- Odor Control Systems

The average time spent by the AQMD to process CPP applications from time of receipt to issuance was approximately 51 days. For the first half of 1998, this processing time has improved, taking to 16 days.

Many CPPs are not "tagging" their permit applications because there is very little perceived incentive to do so. If a CPP submits three "incomplete" applications, his/her

certification may be removed. However, this policy is very loosely enforced. The major reason CPPs become decertified is by their not paying the $150 annual certification renewal fee.

At the time of this writing, the Permit Streamlining Task Force had recently approved a proposal presented by the CPP Committee that listed criteria CPP applications must adhere to and benefits the AQMD would provide for those "qualified" CPP applications.

2.11 PERMITTING ORGANIZATION AND MANAGEMENT PRACTICES

Organizational and Management practices are important factors in determining the current state of permit processing and in making headway towards streamlining the process. AQMD's current structure for Stationary Source Compliance (SSC) was instituted in 1992 to implement the RECLAIM program. SSC has two divisions: one primarily handles RECLAIM and Title V facilities while the other handles all other types of businesses. The two divisions and an administrative group are then organized into a total of eight operational teams and four administrative or staff teams. Each operational team handles certain types of industries or facilities, while the administrative teams develop or administer special programs. All 12 teams are fully involved in permitting and rule development while most teams are also involved in compliance activities for their assigned industries and/or programs.

Although this SSC organization has improved the coordination and effective implementation of programs affecting permitting, compliance and rule development within individual teams, problems develop over time. The links and consistency between teams for permitting have weakened. The development of permitting related policies, standards and guidelines cannot be completed without the involvement of the top management at the executive levels. Moreover, as the priorities have shifted, some of the resources were allocated for the development and implementation of RECLAIM and federal Title III and Title V programs. A number of the permit streamlining issues identified during the investigation for the study may be attributed in all or in part to the unique characteristics of the SSC organizational and management practices.

2.11.1 Survey Of AQMD Team Managers

Five permit team managers were surveyed to assess current organizational and management practices and to determine potential areas where permit processing improvement might be made. Survey questions included:

1. Where is permitting in the priorities of the AQMD?
2. How are you evaluated for performance? How often are you evaluated?
3. What are the metrics used for measuring effective permitting? Are there targets for the number of permits an engineer should be able to complete in a week? How is engineer performance measured?
4. If engineers were required to record application numbers on their timesheets daily, would this be an additional management tool? Is this practical?

5. What kind of authority does the AQMD allow their managers to manage this function? Do the managers have the authority and the responsibility? How do managers discipline poor performance or reward outstanding work?
6. Are you required to submit a business plan?
7. What level of business training have you had?
8. Is there a mechanism for maintaining permitting policy consistency between teams?
9. Do you have an annual budget for your team?
10. Are you rewarded if your team exceeds the commitments in your business plan?
11. What is the penalty for not applying for a permit? Would a business be better off to wait and be discovered and then pay a fine rather than make itself visible to the AQMD?
12. Do you regularly solicit feedback from permit applicants?
13. What program do you have to foster continuous improvement?
14. Do you have suggestions to improve the permitting process?
15. Do you have suggestions regarding management practices?

2.11.2 Survey Results

Permitting Organizational Structure. While permitting is one of the AQMD's primary functions, there is no one person in charge of the process. In addition, the efforts of those that manage the process are diluted by many other responsibilities. Two Assistant Deputy Executive Officers manage divisions that perform permitting functions. Almost all teams within these divisions that perform permitting, also perform rule writing and compliance activities.

During the survey it was stated that a reorganization of permitting teams may take place in the near future. The new structure would remove rule writing from the duties of permitting engineers. Some of the teams would primarily be compliance-only or permitting-only but two large teams will perform integrated compliance and permitting activities.

One manager said the mix of compliance and permitting didn't work well because very few staff were comfortable in both realms. Another manager said the new organizational structure would provide better focus on permitting activities because rule writing could be very time consuming.

Performance Measurement. All managers said they participate in the budget process and that goals and targets are discussed during this process. However, none said they prepare a business plan to formalize goals and strategies to attain those goals.

Not all of the managers are reviewed annually. One manager has not been reviewed in five years. Managers are somewhat measured against the informal goals set the previous year. However, there seems to be no consequence of either good or not good performance. The middle ground is left alone. Outstanding performance is

acknowledged, but not by things such as bonuses or other material gain. Poor performance is dealt with by shuffling the manager off to a less desirable position.

None of the managers were asked about performance reviews for supervisors or senior engineers. Engineers are typically reviewed once per year. As with the managers, the middle ground of engineer performance is left alone. Engineers that receive an "outstanding" rating are given points. Along with seniority points, performance points can determine who survives a future round of layoffs. There was reported to be a step-wise procedure to handle engineers that exhibit poor performance.

Managers said measuring engineer performance is difficult because applications vary in complexity, but acknowledged that measurement is needed.

Management Systems. The managers typically felt that procedures to measure system performance, integrated into an overall management system would be a good idea. However, the management system could not be cumbersome or add layers of bureaucracy.

The Fee Study suggestion of having engineers record daily, time worked on individual types of applications, was discussed with the managers. In general, they agreed the idea was workable and that it would serve as one way to measure engineer performance. One manager said there would need to be some flexibility, because engineers sometimes receive multiple applications from a facility all in one bundle (e.g., 40 storage tanks, 20 ICEs, etc.). New systems being developed by Information Management (electronic timesheets, bar coding) may make this Fee Study suggestion manageable.

In addition to measuring time spent on individual applications, the managers were asked about measuring time spent on engineer activities (e.g., emission calculations, information requests, etc. -- See Section 2.1.5). One of the managers said that this would be worthwhile if improvements could be gained and bottlenecks identified. The idea of procedures to measure the performance of permitting parameters and strive for continuous improvement received tentative acceptance by the managers, but they would like to see concrete examples.

General Suggestions. The managers provided the following suggestions to improve the permitting process:

- Require permitting engineers to periodically inspect facilities that have submitted applications. This would provide valuable insight into applicants' operations. Compliance rates would probably improve.
- Increase the scope of the current certification/registration programs.
- In the goal for standardization of Title V permit conditions, there must be room for flexibility. Not everything fits into neat categories.
- The computer support programs are becoming too cumbersome. The programs should be tools for the engineers, not the engineers slaves to the programs.

- There should be more use of data entry clerks to free up engineer time for more technical work.
- There is a need for consistency between teams (BACT especially). The idea of posting policies and procedures on the web was well received.

2.11.3 Quality Control and Continuous Improvement

Programs such as ISO 9000 and ISO 14000 stress the importance of measuring performance to understand where system improvements can be made. These programs institute a series of management systems, provide for auditing their performance and pave the way for continuous improvement. Many AQMD permit applicants are certified to these programs or have other sophisticated management systems in place. AQMD management practices could benefit from discussing these programs with the regulated community and/or implementing a management program. A brief discussion of management systems is presented in Section 5.

2.12 APPLICATION PRIORITY

The AQMD currently prioritizes permits based on the amount of emissions from equipment types. The amount of emissions is divided into three categories and times are assigned to these categories. The three lengths of time are 7 days, 30 days and 180 days.

Each length of time starts with application receipt by the AQMD and ends with issuance of a Permit to Operate. In practice, the activity covered by the time span is application receipt by the AQMD to the issuance of a Permit to Construct, or a Permit to Operate, if no Permit to Construct is issued. The distribution of applications received over the past 2 years is approximately as shown in Table 2-4.

Table 2-4 Current Distribution of Applications

Priority Category	Description	Current	
		Count	%
7-day	Standard Permits, Straight C/Ownership Registration	2,300	23%
30-day	Small Sources with Standard Controls, No Toxics, Non-RECLAIM, Non-Title V	2,200	22%
180-day	Sources Subject to Notice, Modeling, Detailed HRA	5,500	55%

While permits are categorized by 7, 30, or 180 days, many are not completed within the specified time span. The 30-day application category goal is often not met. A consultant in the pilot Rule 301 (y) express permit program complained that it took over a month for his permit to reach the permitting engineer for evaluation.

Currently, most permits are assigned to the 180-day category (55%) and the 7 and 30-day category are even at around 23%. Standard permitting is projected to shift applications from the 30-day category to the 7-day category.

Regulatory Mandates

There are two issues that the AQMD must resolve to meet the regulatory mandates:

1. Applications for existing equipment without a written permit may be subject to a more stringent Lowest Achievable Emissions Rate (LAER) requirement.

2. Reflecting State law, Rule 210 now requires Non-CEQA applications to be completed in 120-days.

Existing Equipment without a Written Permit

Existing equipment without a written permit are not considered a priority. AVES has evaluated such equipment with applications that are anywhere from 2 to 6 years old. AVES has also noted that some of these applications are for equipment that require BACT and are operating without controls, some are in violation of emissions limits set by AQMD Rules and Regulations, and some require source testing, public notification or detailed heath risk assessments. These applications are lower priority because the AQMD desires to expedite the applications for companies that have correctly applied for a permit to construct before beginning construction. The current process often exceeds the Rule 210 limits and either burden facilities as they wait for authorization or indirectly promotes companies to begin construction while the application is under evaluation.

However, equipment that is operating without a permit often did not have an application because the facility was not familiar with the AQMD's, EPA's or the State's Rules and Regulations. This unfamiliarity of the need to have a permit for the process is often associated with unfamiliarity with emission limits or other requirements can lead to violations of these limits. Applications are often submitted because an inspector has noticed that other violations beside the lack of written a permit. The potential for violation is high, therefore the prioritization of these applications should be increased. At the least the AQMD should investigate the risk associated with low prioritization of these applications.

In addition, the lengthy delay in the issuance of a permit may potentially make the situation worse. EPA has implied that LAER determination is based on the date the permit is issued. LAER requirements in general become more stringent over time. Therefore, if LAER is applied by the date the permit is issued, business owners who operate without a permit may quickly face a control requirement they cannot meet.

120-Day Requirement

The current prioritization may need to be modified in order to meet State law and Rule 210. According to Rule 210 (a) a permit application must be deemed complete within 30 calendar days of the receipt of an application for a permit. Rule 210 (c) states that permits to construct shall be denied 120 calendar days after the date of filing if the applicant has not submitted sufficient information to be deemed complete. Rule 210 (d) requires permits to construct be completed within 180 days.

Reflecting State law, Rule 210 now requires that CEQA exempt applications must be completed within 120 days.

During this study, various prioritization approaches were examined. An approach that meets regulatory requirements and still meets applicant needs reprioritizes applications as follows:

1. Certification/registration permits or other registered permits once developed.
2. Sources with low emissions, standard controls, no toxics, non-RECLAIM, non-Title V: Both Class I (permit to construct, relocation, change of condition) and Class III (permit to operate without prior permit to construct, change of ownership).
3. Sources exempt from CEQA, but with higher emissions, no public notice, and no detailed modeling, or toxics risk analysis: Both Class I and Class III.
4. Sources exempt from CEQA, but with higher emissions, public notice, detailed modeling or toxics risk analysis: Both Class I and Class III.
5. Sources subject to CEQA or PSD analysis.
6. Final P/O for which as P/C has been issued.

Facility permit modifications shall be similarly prioritized. Priorities for plans and ERCs shall be determined on a case-by-case basis.

Notwithstanding the time limits set forth in Rule 210, establish the following goals for issuing permits:

1. Priority 1: 7 days
2. Priority 2: 60 days
3. Priority 3: 120 days
4. Priority 4: 180 days
5. Priority 5: >180 days
6. Priority 6: No priority

The 30-day priority category was expanded to 60-days to provide the time it currently requires to pre-process/screen and for post-evaluation. A 120-day priority has been added to meet the State requirements.

The AQMD staff has estimated the number of permits within the suggested re-prioritization based on the analysis of applications received over the past 2 years and

anticipated implementation of certain streamlining recommendations. The results of the estimation can be seen in Table 2-5.

Table 2-5 Projected Distribution of Applications

Priority Category	Description	Proposed Priority	
		Count	%
Exempt	R219 exempt, R222*	750	6%
7-day	Standard Permits, Straight C/Ownership Registration	3,500	26%
60-day	Small Sources with Standard Controls, No Toxics, Non-RECLAIM, Non-Title V	1,340	10%
120-day	Sources exempt from CEQA, No Notice, No Modeling, No Detailed HRA	2,710	20%
180-day	Sources Subject to Notice, Modeling, Detailed HRA	1,350	10%
>180-day	Sources Subject to CEQA, PSD Analysis	450	3%
No Priority	Sources That Have Been Issued A P/C, and are awaiting final P/O	3,500	26%

* Rule 222 removes specific equipment such as negative air machines and charbroilers from requiring regular permits.

Section 3

HOW AIR AGENCIES AND OTHER ORGANIZATIONS DO BUSINESS

For Task 2 of the Permit Streamlining Study, air quality regulatory agencies and other non-air organizations were surveyed to gather ideas/solutions that could be implemented to make AQMD's permitting process more effective.

The South Coast Air Basin (Basin) is unique because it is in non-attainment for the carbon monoxide (CO) and nitrogen dioxide (NO_2) National Ambient Air Quality Standards (NAAQS). The Basin is classified as extreme non-attainment for ozone. The Federal Clean Air Act (CAA) of 1990 requires that areas that are not in attainment must meet specific emission reduction goals, demonstration of reasonable further progress, and stringent sanctions for failure to attain or meet interim milestones. In addition to Federal requirements, California has additional requirements under the California Clean Air Act (CCAA)of 1988.

The CCAA requires Best Available Retrofit Control Technology; reduction of nonattainment pollutants and their precursors at a rate of five percent per year, or, if this cannot be done, include all feasible measures and an expeditious implementation schedule; reduction of population exposure to severe nonattainment pollutants (i.e., ozone, carbon monoxide, and nitrogen dioxide for the Basin) according to a prescribed schedule; and, ranking of control measures by cost-effectiveness and implementation priority.

The magnitude of non-attainment drives the strictness of rules and regulations and the breadth of industry captured. An example of this are the requirements for "Major" sources under Title V. Of all agencies in the U.S., only the AQMD defines "major" sources as facilities that emit greater than 10 tons NO_x, etc.

Streamlining ideas and systems that work well for other agencies and organizations may not be effective for the SCAQMD. All ideas and systems were received during the survey and were evaluated with other streamline ideas at a later time (see Section 4 Permit Streamlining Ideas)

3.1 AIR AGENCY PRELIMINARY SURVEY

The purpose of the preliminary survey was to identify permit streamlining measures that have been used by other State and local air pollution control agencies, other government agencies, and private industry, that would prove beneficial to the AQMD. The original scope was to select five organizations from fifteen candidates, and evaluate each one as a model for potential changes at the AQMD. It occurred to us, however, that very few organizations would have adopted all or even most of the permit streamlining measures of interest to this study. We decided, therefore, to increase the

number of organizations to study, so that as many permit streamlining measures as practicable could be evaluated.

The RFP called for evaluating:

- Title V program implementation and permit database structure
- Application workflow
- Fees and cost recovery systems
- Workflow and automation in place

Fees and cost recovery systems were not investigated as a primary consideration because this was a task called out for the Fee Structure and Equity Study Team to perform. However, we did not restrict our investigation to RFP areas. We also investigated:

- Engineer accountability
- Document management
- Expert system software
- Equipment registration programs

3.1.1 Agencies Surveyed

For the preliminary survey, we chose forty of the agencies listed in the Air and Waste Management Association's 1996 Government Agencies Directory (AWMA, 1996). The selection was not random. We favored agencies that were responsible for large urban areas, and we eliminated those our experience showed to be lacking in innovative methods for permit processing. Table 3-1 lists the agencies that were sent the preliminary survey package.

Table 3-1. Air Agencies That Were Sent the Preliminary Survey Package

- Allegheny County Health Department (Pennsylvania)
- California Air Resources Board
- Bay Area Air Quality Management District (California)
- Alabama Department of Environmental Management
- Chicago Department of Environment (Illinois)
- Colorado Department of Public Health and Environment
- Connecticut Department of Environmental Protection
- Delaware Department of Natural Resources and Environmental Control
- Florida Department of Environmental Protection
- Georgia Air Protection Branch
- Illinois Environmental Protection Agency
- Indiana Office of Air Management
- Iowa Department of Natural Resources
- Jefferson County Department of Health (Alabama)
- Kentucky Department for Environmental Protection, Division for Air Quality
- Louisiana Department of Environmental Quality
- Maricopa County Environmental Services Department (Arizona)
- Maryland Department of the Environment
- Massachusetts Department of Environmental Protection
- Mississippi Department of Environmental Quality
- Michigan Department of Environmental Quality, Air Quality Division
- Minnesota Pollution Control Agency, Air Quality Division
- Missouri Department of Natural Resources
- New Hampshire Air Resources Division
- New Jersey Air Quality Management
- New York Department of Environmental Conservation
- North Carolina Department of Environment and Natural Resources
- Ohio Environmental Protection Agency, Division of Air Pollution Control
- Pennsylvania Department of Environmental Protection, Bureau of Air Quality
- Philadelphia Air Management Services (Pennsylvania)
- San Diego County Air Pollution Control District (California)
- San Joaquin Valley Unified Air Pollution Control District (California)
- South Carolina Department of Health and Environmental Control
- Tennessee Division of Air Pollution Control
- Texas Natural Resource and Conservation Commission
- Vermont Agency of Natural Resources, Air Pollution Control Division
- Virginia Air Pollution Control
- West Virginia Division of Environmental Protection, Office of Air Quality
- Washington State Department of Ecology
- Wisconsin Bureau of Air Management

3.1.2 Survey Materials and Procedures

We began by telephoning all the agencies to determine the best point of contact for the survey. Then we faxed the following materials to each agency:

- A fax cover sheet briefly describing the survey and referring to the cover letter and questionnaire.

- A cover letter from the AQMD, describing the project and requesting the cooperation of the survey recipients.

- A two-page questionnaire form.

The surveys were sent in two groups. The fax cover sheet for the first group announced that we would be telephoning them "within the next few days" to obtain information. The second stage requested that the recipient fill out the questionnaire and return it to us via fax, or to fax us a convenient time and date for a telephone interview.

For all the agencies in the first group, and for those in the second group that did not respond in a few days, we called or sent e-mail messages to the designated contacts. We asked for a prompt response or we obtained the information over the telephone.

3.1.3 Survey Responses

We received responses from twenty-seven State agencies and six local agencies. These are listed in Table 3-2, with the names and telephone numbers of our contacts. We obtained the survey information over the telephone from thirteen agencies. (Some of these also submitted written materials, such as flow charts.) In several cases, we also downloaded information from an agency's internet web site.

3.1.4 Evaluation of the Responses

Our basic question in reviewing the materials submitted by or obtained from the thirty-three agencies was, "What does this agency have that the AQMD could use in its permit streamlining effort?" The other information provided to us, such as the number of permits issued, and the description of the permitting process, was used to put the permit streamlining information into perspective. A second, less important criterion was the degree of similarity between the agency and the AQMD, with respect to size, budget, types of industries receiving permits, and geographical location.

Reserve for Table 3-2 (3 pages)

We selected nine State and local air pollution control agencies for further study. Table 3-3 lists the agencies, and those aspects of their operations that we believe merit more in-depth investigation. These aspects include, but are not limited to, the following:

- Computerized application processing and tracking systems.
- Automated review of permit applications for completeness.
- Expert systems.
- Permits by rule, general permits, and registration.
- Greater accountability for individual engineers (project manager approach).
- Computerized document management systems.
- Different fee systems.

3.2 AIR AGENCY FOLLOWUP

3.2.1 Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is responsible for regulating air pollution sources in Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara counties, and portions of Solano and Sonoma counties. In 1997, the BAAQMD issued authorities to construct (ATCs) and permits to operate (PTOs) to 1316 and 2089 sources, respectively. The nature of the BAAQMD's regulated community, its rules and regulations, and the types of permits issued are similar to those of the AQMD. There are some differences, however. At the BAAQMD, there is no prescreening of applications for completeness. In addition, permit engineers are assigned to individual facilities, not to organizational units, based on the type of facility or emission source (see below for further discussion). From the survey form and conversations with BAAQMD staff (DeBoisblanc, 1998; Stromberg, 1998), we identified the following elements of the BAAQMD's permit processing system that could be applied at the AQMD:

- Project management for applications
- A permit application tracking database
- A permitting handbook for applicants and engineers
- We also reviewed the BAAQMD's Accelerated Permit Program, which has been unsuccessful in reducing the time and effort spent on the permitting process.

3.2.1.1 Project Management for Applications

Every facility in the BAAQMD's jurisdiction is assigned to an individual permitting engineer, who is responsible for processing all permit applications for that facility, "from cradle to grave" (DeBoisblanc, 1998). The engineer is expected to evaluate emissions and controls for any type of equipment or process. The engineer "owns" the application. If processing falls behind schedule, the engineer's name appears on a list of overdue applications, and he or she attracts the attention of management.

Table 3-3. Air Agencies Targeted for More In-Depth Investigation

1. Bay Area Air Quality Management District (California)

- Computerized Application Tracking
- Engineer Accountability (project manager approach)
- "Accelerated Permit Program" (equipment certification)

2. California Air Resources Board

- New Permit Program for Portable Equipment

3. Colorado Department of Public Health and Environment

- Computerized Permits and Application Tracking (with internet access)
- Pay-for-Performance System
- Document Management System (permits only)
- Legislative Task Force to Study Efficiency

4. Iowa Department of Natural Resources

- Electronic Filing and Permit Tracking System
- Had Streamlining Task Force in 1997

5. Massachusetts Department of Environmental Protection

- Permit by Rule
- Checklists of Standard Conditions and Guidelines
- "Alternate Schedule Permits" (flat hourly fee)
- Document Management System (in planning)

6. New York Department of Environmental Conservation

- Converting to Facility Permits
- All Applications on Diskette (internet in future)
- Software for Completeness Screening
- Expert System Software Identifies Permit Conditions

7. Pennsylvania Department of Environmental Protection, Bureau of Air Quality

- General Permits (similar to permit-by-rule)

8. San Diego County Air Pollution Control District (California)

- Active Permit Streamlining Program
- Engineer Accountability (project management approach)
- Incentive programs for permitting staff

9. Texas Natural Resource and Conservation Commission

- Significant Use of Registrations Instead of Operating Permits
- Computerized Application Tracking System
- Re-Engineering Program

3.2.1.2 Permit Application Tracking Database

For many years, the BAAQMD has used a computerized application tracking system. The database was written in BASIC, and is gradually being converted to an INGRES platform. The system is on their local area network (LAN), and the engineer assigned to an application can update it from his or her desktop computer. Default processing time requirements are built into the system. Every time the engineer enters a milestone, the program calculates the next set of deadlines. Managers have the ability to override the default deadlines and allow for time extensions. The system produces weekly reports on each engineer's projects, and flags those that are overdue.

3.2.1.3 Permitting Handbook

Since the early 1990s, the BAAQMD has used a permitting handbook, the latest version is available at their web site (BAAQMD, 1998). The handbook was designed to be used by applicants as well as by the District's engineers. Its chapters are organized by source type[1] and all have about the same format. The first section contains a brief description of the permitting process and equipment. The second section identifies the pollutants emitted from the source, the mechanism of their formation, and the principal control techniques. The third section summarizes the applicable regulation(s) and rule(s), and any potentially applicable exemptions. The fourth section is a detailed list of application requirements and fees, and includes lists of forms that must be submitted. Finally, the fifth section is an "engineering evaluation template," which guides emission calculations and writing of the permit. The templates include alternative sentences from which the engineer chooses the most appropriate. For example, under the new source review section for industrial, institutional and commercial boilers, the choices are:

> {None of the sources discussed in this application will emit more than 10 pounds of pollutants per highest day. Therefore, BACT is not required.}
>
> {The following sources will emit more than 10 pounds of NO_x (uncontrolled) and CO per day. therefore, BACT is required for this source.}

Finally, the template includes all the potentially applicable permit conditions, as well as references to their bases in the regulations. The engineer includes those that apply. After all selections, substitutions, and additions are made to the template, it can be printed out as an evaluation report to be signed by the engineer.

According to one of our contacts at the BAAQMD, the handbook has been useful to the engineers, but it has not prevented inconsistencies among engineers in their interpretation of the rules and regulations and the corresponding permit requirements. The regulated community, through the BAAQMD's permit ombudsman, has expressed the opinion that application processing times are acceptable, but the inconsistency is not.

[1] The handbook has sections for 47 source categories—10 are not yet available.

3.2.1.4 Accelerated Permit Program

The BAAQMD's Accelerated Permit Program (APP) allows a qualifying air pollution source or abatement device to be installed and operated under a temporary permit to operate while the applicant waits for the formal permit to be issued (BAAQMD, 1996). The entire ATC step is bypassed. Certain types of equipment can start up on the same day that the permit application is submitted. The District issues the formal PTO within 49 days of receiving a complete application. For an applicant to benefit from the APP, the following criteria must be met:

1. Uncontrolled source emissions are less than 3,000 lb/yr or the equipment is precertified.

2. Emissions of toxic compounds do not exceed certain "trigger" levels.

3. The equipment is more than 1,000 feet from a school.

As of this writing, no applicant or equipment vendor has applied for a permit under this program (DeBoisblanc, 1998; Stromberg, 1998). The main reasons for this are:

- For most types of equipment, the normal application processing time is short enough to satisfy most applicants.

- Applicants still have to complete all the forms that are required under conventional permitting procedures, and must certify that all APP criteria are met.

- The District has traditionally been lenient on facilities (about one third of all applicants) that begin construction without obtaining an ATC and simply apply for a PTO.

3.2.2 California Air Resources Board

A Statewide Portable Equipment Registration Program was adopted by the California Air Resources Board (ARB) on March 27, 1997. On September 17, 1997 the Office of Administrative Law approved the regulation and the ARB started receiving applications. Within one year, the ARB received applications for 10,000 portable engines or portable equipment units. Portable engines include, but are not limited to, internal combustion engines (ICEs) used in cranes, pumps, welding, well drilling, woodchippers, military tactical support equipment, power generation, diesel pile-driving hammers, service or work-over rigs, dredges on boats or barges, and compressors.

Portable equipment units include, but are not limited to, confined and unconfined abrasive blasting operations, concrete batch plants, sand and gravel screening, rock crushing, and pavement crushing and recycling operations.

Applications are accepted electronically or can be downloaded and mailed directly to the ARB. While the program is called a Registration program, it has most of the requirements of a permit program; the key difference is the absence of a permit to construct. The program is brand new, designed with today's technology and systems, and was well organized from beginning to end. The ARB has made available an implementation manual that explains all aspects of the registration program. Aspects of the ARB's program that could be applied to the AQMD include:

- Checklists for deeming applications complete
- Engineering evaluation tools
- Checklists for determining applicable permit conditions

3.2.2.1 Checklists for Deeming Applications Complete

The ARB has developed a series of checklists that provide guidance for the review engineer's use in deeming applications complete. These checklists include:

1. General information for registration.
2. Portable internal combustion engine.
3. Proof of residency for portable engine.
4. Portable engine timing retard certification.

Checklists 1, 2 and 4 could be modified to apply to stationary IC engines. In addition, the ARB has the following checklists which may be useful to AQMD permit engineers without any modifications:

1. Sand and gravel screening, rock crushing, and pavement crushing and recycling equipment.
2. Concrete batch plant.
3. Confined abrasive blasting equipment.
4. Unconfined abrasive blasting equipment.

3.2.2.2 Tools for Engineering Evaluation

The ARB has developed flow charts and tables to determine the emission requirements, default emission factors, and methods of compliance for different types and sizes of IC engines. The implementation manual includes emission factors for California reformulated fuels. It also includes emission factors for equipment units associated with the portable ICEs.

3.2.2.3 Checklists for Determining Applicable Permit Conditions

The ARB has developed checklists for determining applicable permit conditions that will be required for registration of the engine or equipment unit. The wording is provided for more than 100 permit conditions, covering general requirements, emission limitations, recordkeeping, reporting and notification, and compliance plans.

3.2.2.4 Technology Transfer to AQMD

The AQMD issued 1152 permits for IC engines in 1996-1997. It also issued 80 permits for abrasive blasting and unknown numbers for concrete batch plants, sand and gravel screening, rock crushing and pavement crushing and recycling operations. The AQMD could evaluate the ARB implementation document to see if the procedures and checklists could provide mechanisms to streamline such equipment applications for stationary ICEs and associated equipment within the AQMD.

3.2.3 Colorado Department of Public Health and Environment

The Colorado Department of Public Health and Environment (CDPHE), Air Pollution Control Division, issues construction permits to new and modified sources whose emissions exceed stated levels. About 1500 construction permit applications are processed each year (CDPHE, 1998). An application is accompanied by one air pollutant emission notice (APEN) for each emission point having uncontrolled actual emissions of any criteria pollutant that exceed certain thresholds. The agency charges an applicant $100 for each APEN, $50 per hour for processing, and any other costs, such as compliance testing, or evaluating and issuing the permit. From the survey form and a follow-up interview with the Construction Permit Unit Supervisor (Myers, 1998) and a permit engineer (Hancock, 1998), we identified one element of the CDPHE's permit processing system that could be applied at the AQMD:

- Permit Application Tracking Database System

Additional information was obtained on the permit application tracking database system from its developer (Marinaro, 1998). The current system was implemented in response to suggestions by a state efficiency task force. It took two people nine-and-a-half months to develop the current version, which is limited to application tracking. Expansions to the system are described later in this section.

The current tracking system is written in Visual FoxPro 3.0. All engineers have access to at least those portions of the data base that concern the applications in-process. The degree of access to other parts of the database vary with the individual. Applicants can check the status of their projects via the CDPHE's web site. Data available on the internet include facility name, type(s) of equipment, type of application, received date, engineer's name, processing status, and approval date. Several types of status reports are provided to management.

Each time an engineer completes a task on an application, he or she updates the database through an "event recorder." After logging onto the permit tracking system, he or she enters a project identifier and then chooses from a large menu of tasks. The engineer then records the date and the number of hours worked on the task. The system records the time of day that the event was entered, but not the time that the task was finished.

CDPHE is currently rewriting the system in Visual FoxPro 5.0. The new version will include modules for hourly billing for permit processing, annual emission fee billing, emission inventory preparation, and monitoring for compliance. The current version of the source code, as well as program documentation, are public domain and can be obtained from the CDPHE if the AQMD is interested (Marinaro, 1998).

3.2.4 Iowa Department of Natural Resources

The Iowa Department of Natural Resources (IADNR) is responsible for issuing new source and operating permits in their state. The main element of IADNR's program that could be applied at AQMD is IADNR's participation in the IOWAccess effort.

IOWAccess is an intergovernmental effort to provide Iowa's citizens access to their government. Funded by a grant from the U.S. General Services Administration, IOWAccess consists of fourteen separate projects. IADNR's effort to develop a system for electronic filing of air permit applications is just one of the fourteen projects.

IADNR developed, through contractor support, the State Permitting and Air Reporting System (SPARS). SPARS allows applicants to file a permit application or submit emission inventory data electronically (through electronic mail, a diskette, or direct upload). The system includes ticklers and drop-down menus to ensure that the permit application is complete and accurate. SPARS will generate reports of emissions data and permit tracking information that will be posted on the internet. SPARS will be available by the end of January 1999. Iowa plans to put SPARS on the internet so that permit applications can be filed directly from the worldwide web. However, there are security issues that must be addressed.

The permit information can be downloaded into SPARS and an Oracle database called Regional Air Pollution Inventory Development System (RAPIDS). RAPIDS was developed by the Great Lakes Commission for compiling emission inventory data from states in the Great Lakes Basin.

3.2.5 Massachusetts Department of Environmental Protection

The Northeast Region of the Massachusetts Department of Environmental Protection, Division of Air Quality (MDAQ) processes permit applications for sources in Boston and about one-half of the state. Eight engineers process construction permits; five are assigned to Title V permitting. From the survey form and a follow-up interview with Mr. Jim Belsky, the Section Chief for BWP Permitting, we identified the following elements of MDAQ's permit processing system that could be applied to the AQMD:

- Permit by rule
- Checklists for permit processing
- Alternate Schedule Permits
- Document Management System

3.2.5.1 Permit By Rule

Certain categories of sources can be installed without obtaining a permit through 310 CMR 7.03. This rule covers degreasers; soldering machines; emergency generators between 3 and 10 million Btu per hour heat input; storage silos; service stations; dry cleaners; nonheatset offset lithographic presses; 12 categories of paint booths; groundwater and soil venting systems; and flexographic, gravure, and screen printing presses. The regulation establishes work practice, control, and record-keeping requirements. As long as a facility complies with the regulation, these sources can be constructed without a permit. Records as to the date of construction must be maintained. Major sources (i.e., facilities that emit more than 50 tons per year of volatile organic chemicals or oxides of nitrogen or more than 100 tons per year of particulate matter, sulfur dioxide, or carbon monoxide) must include permit-by-rule in their annual source registration submission.

3.2.5.2 Checklists

MDAQ has detailed checklists for limited plan approvals, nonmajor comprehensive plan approvals, and major comprehensive plan approvals. These checklists serve to advise applicants of the requirements as well as ensure that MDAQ staff completely review a permit application.

3.2.5.3 Alternate Schedule Permits

Normally, flat fees are charged for processing permits. However, MDAQ has the option of negotiating an alternate schedule permit fee if a permit application is so complex that its review will require twice as much time as the usual application. This fee is a flat hourly fee. Only one alternate schedule permit has been issued during the past seven years. However, large permit applications that are being submitted for major new power generation facilities may be processed as alternate schedule permits.

3.2.5.4 Document Management System

Each of MDAQ's permit engineers maintains a library of permits that he has issued. MDAQ regularly issues conditional or temporary permits. After a source test or inspection has been conducted, the engineer must revise the conditional or temporary permit. MDAQ has found this library to be invaluable.

3.2.6 New York Department of Environmental Conservation

The New York Department of Environmental Conservation (NYDEC) has had an operating permit system for air pollution sources for about thirty-five years. Until recently, permits to construct and operating permits have been issued for specific "emission points." Recently, however, the NYDEC has been converting its program to one based on facility permits. In 1997, about 5000 to 7500 emission point permits and

about 500 non-Title V facility permits were issued. The NYDEC also has a registration system for minor emission sources. About 120 people work in permit processing; most of them are in field offices. The Division of Air Resources, which has many other responsibilities besides permitting, has an annual budget of about $20 million. From telephone interviews with two Division of Air Resources staff members (Higgins, 1998; Reis, 1998), we identified two elements of New York's permit processing system that could be applied at the AQMD:

- Automated permit evaluation system
- Permit application tracking system

3.2.6.1 Automated Permit Evaluation System

New York's permit evaluation system was developed in-house over several years, in anticipation of the Title V program. Written in Sybase, it was designed "from the ground up." It currently handles applications for Title V permits, state facility permits, and state registrations. It is also used for emission fee billing and for emission inventory purposes. The database currently has about 400 tables and 400 screens.

All permit applications are processed electronically. The applicant submits data on a diskette or on traditional paper forms; in the latter case, NYDEC staff (or a keypunching contractor) enter the data onto a diskette. (Applicants will soon be able to submit data through the internet.)

The application receives three levels of screening. The purpose of the first level is to determine whether the application is complete and in the proper format. The software searches for problems such as blank fields, characters where numbers should be, etc. It then generates an "edit report," which describes problems in enough detail for the applicant to see what needs to be corrected. If problems are serious, then the application is returned. If problems are minor, NYDEC staff make the corrections. However, at field offices that have a large workload, there is no time for staff to make the corrections, and many applications with only minor problems are returned.

After the application passes the first level it is entered into the "air facility system" (AFS), where it is checked for technical completeness, internal consistency and accuracy. The AFS performs many checks including:

- Does flow rate equal velocity times area?

- Do emissions of each pollutant from each emission source add up to the total reported in the emission summary?

- Are all combinations of equipment, process, emissions, and stacks properly linked?

The AFS also performs a "permit QA" analysis, to determine whether administrative requirements have been met. At the end of the review, the software prepares another

edit report. Problems are flagged either as “errors,” which must be resolved before processing can continue, or “warnings,” which may not necessarily interrupt processing. Engineers try to resolve as many problems as possible before sending an application back to an applicant.

The third level of evaluation is the “expert system” module, whose use is optional. Some engineers use it all the time; others never use it. The module has been programmed with numerous “criteria sets,” each corresponding to an agency rule or permit condition. The criteria include geographic location (e.g., in a nonattainment area or not), emission levels, source classification codes, etc. Data in the application are compared with the criteria sets and the software prints out a list of applicable permit conditions. To be conservative, the software generally includes more conditions than actually apply. It is up to the engineer to decide which to include in the permit. NYDEC staff emphasized that the expert system was meant to be used by engineers familiar with the rules; it was not meant to replace their judgment. The module is run in a batch mode; it is not interactive. Processing time takes 5 to 45 minutes, depending on the complexity of an application.

3.2.6.2 Permit Application Tracking System

Air permits are processed under New York’s Uniform Procedures Act (UPA), which governs most types of environmental permits. The UPA sets specific time limits for determining completeness and for acting upon a complete application (NYDEC, 1998a, 1998b). To track compliance with the UPA, the state uses a computerized tracking system. Each time an engineer reaches a processing milestone, he or she updates the tracking system from a desktop computer. Unlike similar tracking systems at other agencies we contacted, this one does not prepare periodic status reports, although such reports are available if managers wish to have them.

3.2.7 Pennsylvania Department of Environmental Protection

The Commonwealth of Pennsylvania, Department of Environmental Protection (PADEP) is responsible for issuing new source and operating permits in the Commonwealth except for Allegheny (Pittsburgh) and Philadelphia Counties. Permits are processed at PADEP’s regional offices. The main element of PADEP’s program that could be applied at AQMD is PADEP’s general permits.

General permits are issued for the following classes of sources:

- Small combustion units
- Tanks storing volatile organic liquids
- Portable nonmetallic mineral processing plants
- Burn-off ovens for removing cured hydrocarbon coatings from metal parts
- Natural gas production facilities
- Petroleum dry cleaning processes
- Sheetfed offset lithographic printing presses

Currently, PADEP is considering issuing general permits for web, nonheatset, and offset lithographic printing presses. General permits include the following sections, whose contents differ according to type of equipment:

1. Statutory authority and general description
2. Applicability/source coverage limitations
3. Application for use
4. Compliance
5. Permit modification, suspension, and revocation
6. Notice requirements
7. Sampling and testing
8. Monitoring, recordkeeping, and reporting
9. Term of permit
10. Permit and administrative fees
11. Expiration and renewal of permit
12. Applicable laws
13. Prohibited use
14. Transfer of ownership or operation
15. Plan approval
16. Definitions
17. Equipment standards
18. Testing requirements
19. Monitoring requirements
20. Recordkeeping requirements

Essentially, the general permit serves as a plan approval (i.e., permit to construct) and operating permit for these types of equipment. The permit applicant submits an application and receives written approval from PADEP. The applicant can then construct. If there are other sources that do not fall within the applicability requirements of a general permit, the provisions of the general permit will be included in the facility's operating permit. An applicant has a choice of using the general permit or obtaining a regular permit. If the applicant has existing permitted equipment for which the general permit could be used, he has the right to exchange his existing permit for the general permit. The main benefits of general permits to applicants include the ease of obtaining plan approval and the lower cost of permit fees. With a general permit, fees are paid only once every five years.

3.2.8 San Diego County Air Pollution Control District

The San Diego County Air Pollution Control District (SDCAPCD) processes about 2100 permit applications per year. There are twenty-six Title V facilities in the County. In addition, San Diego County has 600 to 700 sources that are registered as portable equipment or small generic equipment. In general, all new sources must have a permit unless the equipment is exempted by Rule 11 (which is similar to AQMD's Rule 219). The Engineering Division has three to four clerks, fifteen "engineers" (four technicians

with a two-year degree and eleven engineers), four supervising engineers, and three senior engineers for Title V. Permit review and processing has a budget of $1.5 million out of a total agency budget of $10.8 million. From the survey form and a follow-up interview with Mr. Michael Lake, the Engineering Division chief, we identified the following elements of SDCAPCD's permit processing system that could be applied to the AQMD:

- Active permit streamlining program
- Engineer accountability (project manager approach)
- Incentive programs for permitting staff
- Time accountability

3.2.8.1 Active Permit Streamlining Program

For the past six years, SDCAPCD has had an active permit process improvement program. The Permit Streamlining Team, which includes representatives from industry, meets monthly to discuss improvements to the permit system.

3.2.8.2 Engineer Accountability (Project Manager Approach)

SDCAPCD uses a project manager approach. A single permit engineer is responsible for a permit application from "cradle to the grave."

3.2.8.3 Incentive Program for Permitting Staff

SDCAPCD has two incentive programs. The first program is internal to the SDCAPCD. Each year, four awards to each Division and six SDCAPCD-wide awards are given. The awards include bonuses of up to $250. Coworkers nominate awardees, supervisors review the nominees, and an awards committee decides who receives an award. The basis for awards are customer service, technical excellence, and productivity. Each engineer and the section as a whole are evaluated monthly on scorecards; scores are based on the results of satisfaction surveys that are taken after permits are issued. The SDCAPCD also participates in a second incentive program that was negotiated with the County Supervisors. Goals have been established for the SDCAPCD; if achieved, employees receive a two percent bonus.

3.2.8.4 Time Accountability

SDCAPCD has a detailed time accountability system. This system is used to establish permit fees, manage workload, and evaluate permit engineers.

Many permit applicants (approximately 75%) are charged a permit fee on a time-and-expense basis. To establish the fee rate, the time accounting system is used to determine a burdened rate (i.e., salary, benefits, and overhead). In addition, the reports from the system are used to determine the fixed fees for types of equipment that have fixed fees for permit processing.

SDCAPCD permit engineers complete a timesheet daily. Time is accounted for to the nearest tenth of an hour. Each permit application and overhead requirement (e.g., meetings, special projects, etc.) has a separate account number. Weekly timesheets are entered into a database and reports are generated from this database. In addition to the reports used to determine fee rates, a report is issued so that supervisors can judge if permit engineers are meeting goals for direct billable hours. Each applicant invoice is reviewed by the assistant division director for reasonableness.

3.2.9 Texas Natural Resource and Conservation Commission

The Texas Natural Resource and Conservation Commission (TNRCC) processes about 5700 permit applications per year, exclusive of Title V. In general, a permit to construct is required for any new or modified device or process that emits any amount of any pollutant, unless the owner is entitled to an exemption. Except for Title V, Texas does not issue operating permits. The TNRCC's New Source Review Permits (NSRP) Division has a staff of 120 and an annual operating budget of $6 million. The Division consists of ten teams of engineers, each with a "team leader." From the survey form and a follow-up interview with the NSRP Division Director (Hsu, 1998), we identified five elements of the TNRCC's permit processing system that could be applied at the AQMD:

- The "CORE" Section for pre-application meetings and application screening
- Project management for applications
- A project tracking database
- A comprehensive registration program
- Emissions reduction analysis as a management tool

3.2.9.1 Pre-Application Meetings and Application Screening

The NSRP Division has a formal unit called the "CORE Section," with a dedicated staff of twelve (including five senior engineers) to screen applications. The TNRCC strongly encourages applicants to meet with the CORE Section before they submit their applications. In these "prepermit" meetings with experienced engineers, applicants gain a better understanding of their submittal requirements. At the same time, the NSRP staff can identify and discuss potentially difficult technical issues that could affect approval of a permit. Ideally, these issues could be resolved before the application is submitted.

The main function of the CORE Section is to review permit applications for completeness and "technical suitability" (TNRCC, 1996). If the application is deficient, the applicant is sent a customized letter and a checklist. If the deficiency is minor, then the application is assigned to a permit engineer, and processing begins. If the deficiency is considered major, the CORE Section holds the application until the problem is resolved; applications are not returned to the applicants.

Finally, the CORE Section prepares guidance documents for the regulated community. These documents address general regulatory requirements and the permit application process.

3.2.9.2 Project Management for Applications

For the great majority of permit applications, one engineer performs all the analyses, and is responsible for meeting processing deadlines. For unusually complicated projects[2], a team of two or three engineers may be assigned.

3.2.9.3 Project Tracking Database

The TNRCC uses a FoxPro database system to track the status of open and completed projects. For each application, the CORE Section prepares a hardcopy "project sheet," which is given to an assigned engineer. When the engineer finishes an action he or she notes it on the project sheet and gives the sheet to a data entry clerk who updates the database. Every month, the team leaders receive a report showing, for each engineer on the team, a list of pending projects. Projects which have missed a processing deadline are flagged. Higher-level managers are given monthly reports on the team leaders, in which missed deadlines are noted. The database can, of course, be accessed at any time by TNRCC staff.

A limited amount of information on pending projects is available from the TNRCC's web site on the internet. Data displayed include the date the application was received, the applicant's name and location, various identification numbers, and the name of the engineer assigned to the project.

Somewhat more detailed information is available from the web site for projects that have been completed. Data include application processing start and end dates, final status (e.g., permit issued, denied, etc.), type of equipment, process rate, facility data, and amount of permit fee.

3.2.9.4 Registration Program

Since the early 1970s, Texas has had a registration program for small sources. In 1997, the TNRCC processed about 4000 applications for registration of standard exemptions. Detailed exemption requirements have been defined for almost fifty categories of equipment. Applicants can obtain general and equipment-specific checklists from the TNRCC's web site, to determine for themselves whether they qualify for an exemption. They can use one or more of these checklists as partial documentation for their exemption(s). When registering exemptions, applicants must document and certify to a maximum emission rate for each air contaminant emitted.

[2] A "project" is the processing of an application for a new or amended permit or registration.

3.2.9.5 Emissions Reduction Analysis

As part of the continuing effort to "tune" its permitting system, the TNRCC performs an emissions reduction analysis for every permit application. First, the engineer calculates the emissions from the permitted equipment, under the final terms of the permit. Then he or she calculates what the emissions would have been had the application been issued as originally submitted, i.e., with no review. If the review resulted in a small decrease or in no increase in emissions, then the agency is supposed to reconsider whether permits should be required for the type of equipment in question.

3.3 OTHER ORGANIZATIONS

In addition to air quality regulatory agencies, it was felt that other organizations would have programs, processes and systems that could benefit the permit streamlining process. Toward that end, three "nonair" quality organizations were questioned in detail. These organizations were the Southern California Gas Company, The Los Angeles County Sanitation District and Zurich Commercial (an insurance company).

The goal was to choose organizations that process a large number of customer-submitted "applications." This was especially applicable for insurance companies, where claims are submitted and processed by claims adjusters. It was also true for the Los Angeles County Sanitation District, where a large number of complex industrial discharge permits are handled. In the case of Southern California Gas Company, a large number of construction projects are evaluated and processed.

3.3.1 Southern California Gas Company

Southern California Gas Company ("the Gas Company") recently streamlined its new business process. Builders wishing to obtain gas service for their developments submit application forms to the Company's Field Operations. The builder must pay an up-front charge for the Gas Company's construction effort. The Gas Company reimburses the customer for construction costs based on allowances. The allowance for service lines is reimbursed over one year; main lines is reimbursed over ten years. After the application is approved, the Gas Company prepares a plan and issues a contract for the construction. The Gas Company handles about 18,000 projects a year—2,000 are significant developments. The system includes 35 project managers and 58 planners in field operations, 20 technical services personnel at four regional offices, and 5 mapping services personnel and 15 accounting personnel at the central office. We identified through an interview with Mr. Ron Gorman, New Business Process Consultant, the following elements of the Gas Company's program that could apply to the AQMD:

- Project management for applications
- Streamlining of forms and processes
- Data management system
- Interface with customers

3.3.1.1 Project Management for Applications

A single project manager is assigned to each application, and is the single point of contact for the customer. He or she is responsible for ensuring that the project is completed in a timely manner to the satisfaction of the customer. The project manager is empowered to approach management of other departments to move projects faster if required.

3.3.1.2 Streamlining of Forms and Processes

The Gas Company has reviewed its forms and processes to eliminate redundant, time-consuming efforts. For example, the flowchart for the new business process has been reduced from eight pages to four. In the past, the Gas Company input builders' plans into its mapping system by digitizing or scanning them. This process took about thirty days. Now, the builder can submit the plans electronically. This step now takes about three days. Similarly, the Gas Company's forms have been simplified. A contract that was thirty pages long has been reduced to three or four pages by eliminating unnecessary clauses and legalistic language.

3.3.1.3 Data Management System

The Gas Company developed a new database management system for about $500,000. The system is intranet-based. The project engineer has access to a variety of information concerning his project using a point-and-click system. The Gas Company chose to develop an intranet-based system because it's user-friendly and incurs lower programming costs. They previously used a traditional database management system with screens. That system is still maintained for past projects because of the need to track refunds of allowances for mains. They plan to tie data from their intranet into their internet web page so that builders will be able to access information on their projects. Their web site already provides access to billing and rate information to customers.

3.3.1.4 Interface with Customers

The Gas Company has changed its processing methods to improve the interface with customers. Having a project manager be a single point of contact for the builder is one measure; electronic submission of plans is another. Applications can also be submitted electronically via e-mail using an application form in Microsoft Word. All such steps reduce the burden on the customers in their interface with the company.

3.3.2 Los Angeles County Sanitation District

The County Sanitation Districts of Los Angeles County operate a permit program for industrial firms that discharge to the County's sewer system and publicly-owned treatment works (POTWs). The program includes about 4,000 permitees. These include companies in thirty-two industrial categories regulated by Federal pretreatment requirements. About 1700 of the facilities permitted are classified as Significant Industrial Users (SIUs). SIUs include the categorical facilities and other facilities that

discharge pollutants that could have a significant effect on the system's POTWs. Permits are renewed every five years. The Industrial Waste Section has ten permit engineers and one permit evaluator. Each engineer and the permit evaluator handles about 300 SIU permits every year. A separate staff of project engineers reviews draft permits to ensure that all federal requirements are correctly included. After a discussion with Mr. John D. Kilgore, P.E., who supervises the permit unit, we identified the following elements of the County Sanitation Districts' system that could be applied to the AQMD:

- Instruction booklet for applicants
- Templates for permit writers
- Industrial Advisory Council

3.3.2.1 Instruction Booklet for Applicants

The County Sanitation Districts provide an instruction booklet to applicants. This booklet describes the requirements for a permit and the permitting process. Directions for completing the single-page form and providing additional information are also included. The applicant uses a checklist to ensure that all information is provided.

3.3.2.2 Templates for Permit Writers

The County Sanitation Districts use templates created in WordPerfect 8 to write permits. The templates are menu-driven so that the permit engineer can choose those that are appropriate. Thus, the permit conditions do not have to be rewritten each time a new permit is issued. The templates also can be used to assemble other documents that are issued as part of the permit process, such as the permit evaluation.

3.3.2.3 Industrial Advisory Council

The County Sanitation Districts have an Industrial Advisory Council. Fifteen types of industry are represented on the Council, which meets monthly. The Districts prepare an agenda for each meeting. This council considers a number of issues—one being the permitting program. In general, the Council considers permitting issues three to four times per year. Recent recommendations have included self-certification.

3.3.3 Zurich Commercial (Insurance)

Zurich Commercial, an insurance company, was contacted to determine whether their processes, procedures and systems might have components analogous to AQMD's and whether something could be learned from the analogous components.

Zurich Commercial estimated that each adjuster processes approximately 100 claims per year, approximately the same amount of permits as AQMD engineers. All claims are logged and tracked electronically. Some information, such as doctor's reports and other graphical data, can be retrieved electronically for viewing. All textual claims data

are immediately available electronically for viewing and processing. These include other related claims that a claims adjuster might find relevant.

In many ways, insurance claims processing appears to be analogous to permit processing. However, during the interview there was a sense that claims processing is much more highly automated than AQMD permit processing. For example, permit engineers do not have ready access to other permit data, while claims data are at the fingertips of claims adjusters.

Another example of increased automation is claims tracking. Zurich Commercial apparently has several ways to track claims electronically as they go through the process. This tracking is essential in determining claims status from both the customer point of view and the claims adjuster supervisor point of view.

One of the basic tools that claims adjusters use is an electronic internal diary system. The internal diary system is an electronic organizer that allows the claims adjuster to log all of the claims in process, determine how to prioritize them and log action items. The Zurich Commercial interviewee indicated that the internal diary system was the primary method for claims adjusters to prioritize their day.

Lessons Learned

To process permits on the level that insurance companies process claims, AQMD should:

- Increase the level of electronic tracking for permit applications.
- Enable permit engineers to access permit application information (including related permits) instantly instead of working through Information Management.
- Require engineers to track their permit applications on an electronic diary.

Section 4

PERMIT STREAMLINING IDEAS

4.1 TASKS 1 AND 2 PERMIT STREAMLINING IDEAS

This section (1) presents permit streamlining ideas to improve the current AQMD permit processing program, (2) weighs their benefits and negative impacts, and (3) prioritizes them for future implementation. The list of ideas was generated from a wide variety of sources which include AQMD staff, permit applicants, previous permit streamlining studies, the Permit Streamlining Task Force, the Fee Structure Study Team and the Permit Streamlining Study Team. AQMD also recently amended Rule 219 and adopted Rule 222 to further streamline efforts.

Thus, the ideas are a representative cross-section of sources who, in one way or another, have extensive experience in working with the AQMD permitting process.

4.1.1 Previous Studies

The AQMD has, in the past, implemented many changes in the permitting process. Many programs have been implemented in the hope of making the permitting process more efficient. Many studies have also been conducted to determine the feasibility of alternatives. Below are summaries of ideas and recommendations from these studies and programs:

1. AQMD Triennial Performance Audit (ca. 5/98) -- With respect to permit application checks, the Audit recommended that all checks be logged immediately upon receipt by AQMD, then forwarded to finance for deposit by the next business day. The checks would then be reconciled against the log. The Audit also recommended that AQMD fully integrate its accounts receivable and CLASS systems to enable automation of refund check processing.

   With respect to the CPP program, the Audit concluded that information on program effectiveness was lacking and recommended that the CPP coordinator gather specific information for six months to better understand program effectiveness.

   With respect to opportunities for increased efficiency in permit processing, the Audit concluded that SSC and Finance staff spend more time than necessary in the permit Prescreening and CLASS computer systems. The Audit recommended: (a) a keyword search capability in the Prescreening system to assist in finding the appropriate equipment being permitted; (b) a computer fix to prevent data entry staff from entering data that conflicts with information input by the SSC engineer; (c) a way to associate electronically the permit or application number as part of each transaction; and (d) that AQMD establish a tracking

system to monitor the status of applications for which fee payments are missing or incorrect.

2. AQMD Permitting (Stationary Source Committee Report ca. 8/97) -- The Report recommended:

- Over-the-counter permitting
- Simplified permit application forms
- Dugout processing sessions
- Contract engineers
- Satellite permitting centers
- CPPs -- although marginal benefit was seen during four years of operation.
- Rule 219 -- eliminated ten equipment categories (10,000 permits)
- Certified equipment
- Green Carper Program
- Facility Permit Processing Software (FPPS)
- WARP (now WARP II)
- AQMD permitting homepage

1. Suggestions and Comments on the Integrated Business Plan for Permit Processing (ca. 1996) and the Integrated Business Plan for Permit Processing (ca. 1995) -- The Integrated Business Plan (IBP) proposed ideas that included: (a) accepting applications via fax or e-mail, checks by fax-a-check, electronic fund transfer and credit cards, (b) prescreening by teams, and (c) accepting all applications. The detailed analysis of the IBP points out the strong points and weaknesses of the conclusions.

   For example, the Fax-a-Check idea was analyzed as not being cost-effective for the AQMD because of set-up and other difficulties. Also, the vast majority of infrequent permit applicants file only once or twice a year. The Suggestions and Comments on the IBP also recommended:

- Reduce redundant data entry (when an application is received).
- Minimize duplicate ID creation.
- Create a checklist for completeness verification.
- Create a fee worksheet.
- Redesign Form 400A.
- Customize more application packages similar to service stations (this is currently in process). These packages should also have a predefined fee schedule listed.
- Create a computerized tutorial or expert system for filling out applications.
- Track all permit applications when they are received. This would require immediate ID assignment. Bar coding may facilitate information tracking.
- Use “intelligent” SCC codes -- SCC codes enhanced by additional numbers.

- Can software packages that are commercially available (e.g., I-Steps, etc.), be customized for AQMD or permit applicant use?

1. ARB Permit Streamlining Guidance Document (ca. 1993) -- The Stationary Source Division of the California Air Resources Board prepared this document to address requirements of Health and Safety Code sections 42320-42323; AB 2781. The Permit Streamlining Act, AB 2781, requires Districts to review their permit programs and to institute new efficient procedures. The purpose is to assist business in complying with air quality laws in an expeditious manner, without reducing protection of public health and the environment. The AQMD is listed as implementing thirty-eight of the forty-three measures, planning to implement one measure, evaluating three measures and not planning to implement one measure. Since that time, AQMD has either implemented or evaluated all 43 measures. The forty-three measures are listed in Table 4-1.

2. Permit Processing Approach for Small Business (ca. 1992) -- The goal of the study was to avoid permitting repetition of small sources by performing most of the permit processing up-front and performing it only once. A system was proposed, built on the concept of pre-evaluation of commonly encountered equipment and processes. The following three programs were proposed for handling the bulk of small sources:

   - Certification and Registration (C&R)
   - Umbrella Permit (UP)
   - Tiered Emission Packages (TEP)

   An Automated Computer Expert System (ACES) was proposed to assist processing of and to keep data on unique equipment.

   The overall evaluation would be divided into two parts: evaluation of the equipment and evaluation of the facility. Equipment evaluation could be repeated for similar equipment. However, facility evaluation was to be performed individually because of location and facility history.

1. New Directions (ca. 1991) -- New Directions was a 12-point program of reforms aimed at improving the South Coast Air Basin's sagging business climate but still reaching clean air goals. For permit processing, New Directions listed the following five solutions:

   - Precertification
   - Consolidation (facility permits)
   - Quicker review (7/30/180)
   - Privatization (CPPs)
   - Marketable permits

Table 4-1. AB2781 Permit Streamlining Act Measures

1	Precertification of commonly used equipment
1	Consolidated permitting schedule for all sources within a facility
3	Expedited permitting for minor sources
4	Training and certification of consultants
5	Standardized application forms
6	Combined authority to construct and permit to operate for some sources
7	Appeals process for expedited permitting
8	Pre-application meetings
9	Pre-application forms
10	Training for business on the permit process
11	Applications accepted via fax, telephone or computer modem
12	Receipt of applications acknowledged within 10 days
13	Applicant notified of AQMD contact
14	Applications screened for major omissions when submitted
15	Applications deemed complete/incomplete in less than 30 days
16	Standard completeness letters
17	Applicants provided with information sheets on common problems
18	Standard permitting policies and procedures
19	BACT manual
20	Standard permit conditions
21	Specialized staff for various source categories
22	Use of computers to expedite permitting
23	Tracking systems to monitor permitting or emissions inventory
24	Inspectors evaluate unpermitted sources
25	Designated CEQA staff
26	Ministerial CEQA process for designated sources
27	Registration of small sources
28	Renewal of operating permits every five years
29	Brochures or other permit assistance materials
30	Coordination with economic development corporations in explaining permit process
31	Questionnaires for feedback on permit process
32	Solicitation of industry recommendations for improving the permit process
33	Hot line
34	Multilingual staff
35	Coordination with city/county on building permits
36	Coordination of facility inspections with other agencies
37	Coordination with other agencies on contaminated soil cleanup
38	Coordination with other agencies on underground tanks
39	Coordination with other local, state or federal agencies
40	Small business discount on permit fees
41	Credit card payment of permit fees
42	Loan guarantee programs
43	Rules revisions

4.1.2 Permit Streamlining Task Force Ideas

The Permit Streamlining Task Force (PSTF) was formed to investigate alternatives or potential solutions to make the permitting process more efficient and reduce backlog and turnaround time. The PSTF members comprise AQMD Board members, industry representatives, CPPs and environmental representatives. The PSTF began meeting in April 1998 and has met monthly throughout the remainder of 1998 and into 1999. The twenty-six PSTF action items are listed in Table 4-2. Only those action items checked "yes" have received a recommendation to proceed by the PSTF.

4.1.3 AQMD Staff Ideas

Tables 4-3 and 4-4 list ideas put forward by AQMD permitting staff.

4.1.4 Summary of Ideas from Other Agencies and Organizations

Engineer Ownership

Perhaps the single most important element of a new permit streamlining paradigm is individual engineer responsibility for each application. The AQMD would do well to adopt a system similar to that of the Bay Area Air Quality Management District, the San Diego County Air Pollution Control District, the Texas Natural Resource and Conservation Commission (TNRCC), the Southern California Gas Company, and other agencies, where each application is treated as a "project" with a "project manager." With TNRCC, the process starts with pre-application meetings. Putting the spotlight on the individual engineer, especially in conjunction with a time-tracking system, will not only help speed up the processing, but will also give the applicant a single, reliable point of contact for questions.

Automated Processing of Applications

The AQMD should develop a system similar to (although not necessarily identical to) that used by the New York Department of Environmental Conservation (NYDEC) to evaluate applications. Automated systems not only speed up the processing, but, perhaps more importantly, they ensure consistency of evaluation. Elements of an automated system would include electronic filing, tracking of the physical location and status of applications, and standard (but modifiable) permit conditions. Because an automated system may take several years to develop, a comprehensive permit evaluation handbook, coupled with in-house engineer training and cross-training, could be used in the interim to ensure consistency. The Iowa Department of Natural Resources (IADNR) also has an electronic filing system that allows applicants to file a permit application or submit emission inventory data electronically (through electronic mail, a diskette, or direct upload).

Computerized Application Tracking

The BAAQMD is using a computerized application tracking system. The engineer assigned to an application can update it from his or her desktop computer. Default processing time requirements are built into the system. Every time an engineer enters a milestone, the program calculates the next set of deadlines. Managers have the ability to override the default deadlines and allow for time extensions. The system produces weekly reports on each engineer's projects, and flags those that are overdue. The IADNR electronic permit system was also designed to track applications and allow applicants access to the system.

The TNRCC uses a FoxPro database system to track the status of open and completed projects. For each application, the CORE Section prepares a hardcopy "project sheet," which is given to an assigned engineer. When the engineer finishes an action, they note it on the project sheet and give the sheet to a data entry clerk who updates the database. Every month, team leaders receive a report listing their engineers and their respective pending projects. Projects that have missed a processing deadline are flagged. Higher-level managers are given monthly reports regarding the team leaders, with missed deadlines noted. The database can, of course, be accessed at any time by the TNRCC staff.

All Zurich insurance claims are logged and tracked electronically. Some information, such as doctor's reports and other graphical data, can be retrieved electronically for viewing. All textual claims data are immediately available electronically for viewing and processing. These include other related claims that a claims adjuster might find relevant.

Expert System Software

NYDEC uses an "expert system" module. The module has been programmed with numerous "criteria sets," each corresponding to an agency rule or permit condition. The criteria include geographic location (e.g., in a nonattainment area or not), emission levels, source classification codes, etc. Data in the application are compared with the criteria sets and the software prints out a list of applicable permit conditions. NYDEC staff emphasized that the expert system was meant to be used by engineers familiar with the rules—it was not meant to replace their judgment.

Registration, General Permits

TNRCC, Pennsylvania Department of Environmental Protection (PADEP), and many other air permitting agencies make extensive use of equipment registration/certification and general permits. In 1997, the TNRCC processed about 4,000 applications for registration of standard exemptions. Detailed exemption requirements have been defined for almost fifty categories of equipment. Applicants can obtain general and equipment-specific checklists from the TNRCC's web site, to determine for themselves whether they qualify for an exemption.

General permits are issued by PADEP for the following classes of sources:

- Small combustion units.
- Tanks storing volatile organic liquids.
- Portable nonmetallic mineral processing plants.
- Burn-off ovens for removing cured hydrocarbon coatings from metal parts.
- Natural gas production facilities.
- Petroleum dry cleaning processes.
- Sheetfed offset lithographic printing presses.

The general permit serves as a plan approval (i.e., permit to construct) and operating permit for these types of equipment. The permit applicant submits an application and receives written approval from PADEP. The applicant can then construct. The main benefits of general permits to applicants include the ease of obtaining plan approval and the lower cost of permit fees.

Instructions for Applicants

The Los Angeles County Sanitation Districts provide an instruction booklet to applicants that describes the requirements for a permit and the permitting process. Instructions for completing the single-page form and providing additional information are also included. The applicant uses a checklist to ensure that all required information is provided. Many other agencies make extensive use of instruction booklets for permit applicants.

Accountability -- Internal Management

There is a sense of urgency in how insurance claims adjusters work (Zurich Insurance). They are under extreme pressure to expeditiously and accurately process claims and are held accountable. Evidence of this urgency is shown in the way claims adjusters organize their case load. Rather than writing their top ten tasks for the day on a piece of paper or in a clumsy notebook organizer, claims adjusters use an electronic internal diary system. The internal diary system is an electronic organizer that allows the claims adjuster to log all of the claims in process, determine how to prioritize them and log action items. This is the primary method for claims adjusters to prioritize their day.

Table 4-2. Permit Streamlining Task Force Ideas

No.	Category	Description	Imple-mented
TF-1	General	List and track all ideas discussed at PSTF meetings	5/15/98
TF-2	Fee	Set up debit account for qual. appl. to pay app. fees	
TF-3	Fee	Allow payment of permit app. fees by credit card	
TF-4	Workflow	Accept apps. w/85% fee paid, 45 days for balance	
TF-5	Fac. Perm.	PSTF to meet w/AQMD staff re Title V alternatives	5/27/98
TF-6	Fac. Perm.	Changes to facility permit	
TF-7	Fac. Perm.	Staple existing permits and add EPA reqs for Title V	
TF-8	Fee	Fee applicability based on app. postmark	6/19/98
TF-9	Support	Authorize direct access to app. files for CPPs	
TF-10	Support (CPPs)	14-day turnaround for CPP apps, CPP cert. more stringent, publish AQMD policies on internet, standardize app. format for CPPs	
TF-11	General	Conduct brainstorming sessions w/AQMD & appls.	7/1/98
TF-12	Support	Present on-line capabilities to PSTF & planned adds.	7/9/98
TF-13	Support	Form CPP subgroup, report back to PSTF in 1 month	7/9/98
TF-14	Fac. Perm.	Implement facility permit streamlining work plan - fast	
TF-15	Fac. Perm.	Implement facility permit streamlining work plan - soon	
TF-16	General	Small business comment presented to PSTF	7/17/98
TF-17	Permit	Focus on sources posing greatest env. threat	
TF-18	General	Target: more staff, incomplete packages, low PO prior	
TF-19	Support	Investigate: standard permits, bar codes for tracking, app. scanning, basic equipment minimum reqs	
TF-20	Permit	Implement BACT review committee prior to final actions	
TF-21	General	More training for permitting staff. Doc. all decisions	
TF-22	Permit	Treat relocations as modifications, not as new facilities	
TF-23	Permit	Refer BACT issue to BACT SRC re LAER determs., LAER should be det. when an app is deemed complete	
TF-24	Support	App. should be tracked as soon as AQMD receives it and all AQMD groups should use same number	
TF-25	Permit	Speed BACT det., empower BSRC, Ombudsman	
TF-26	Permit	Reevaluate BACT/LAER issues for R1151 & other low emitting equipment	

Table 4-3. AQMD Staff Ideas -- A

No.	Category	Recommendation
S-1	Permit	Issue over-the-counter (or internet) Permit to Construct Registration for any equipment for which a P/C Registration Protocol is developed. Applicant
S-2	Permit	Eliminate redundant reg and admin reqs, e.g., R212 ©(2) & (3) notice
S-3	Support (IM)	Simplify status tracking system to track only essential steps, then systematically correct all data errors
S-4	Workflow	Let indiv. unit receive and issue permits. Data entry staff to work dir. w/unit.
S-5	Permit	More precertified equipment to qualify for registration
S-6	General	Staff training for improved consistency and efficiency
S-7	Support (IM)	Use imaging, electronic workflow and other IM technologies for a paperless system initially for simple and then for more complex equipment
S-8	Fee	Allow electronic fund transfer credit cards, or Fax-A-Check for application fees to promote internet application submittal
S-9	Support (IM)	Red. redundant data entry by capturing data entered during prescreening
S-10	Support	Minimize dup. ID creation by giving applicant preprinted labels for 400A
S-11	Support	Reduce rejection rate by using completeness checklist, fee worksheet, & customized application forms
S-12	Workflow	Records Section should be open to permit processing staff at all times
S-13	General	Allow flexible work hours including 5/8 week, job sharing, etc. to maximize available permit engineering hours
S-14	Fee	Don't put finance hold on facility if total fees paid exceed fees due
S-15	Support (IM)	Revise the NSR module so that data are automatically copied over to new applications for all administrative change applications
S-16	Support (IM)	Improve NSR module/procedures – most common delay according to engrs survey
S-17	Workflow	Change prescreen policy to 1 phone call, not 3, and assign a person resp. for resolving applications held in prescreening more than 7 days
S-18	Workflow	Reeval. 7/30/180 designation, prioritize based on curr. reqs (e.g., 7/60/120)
S-19	Support	Use TQM system (e.g., ISO 9000, 14000) for cont. improvement
S-20	Permit	Encourage more manufacturers to certify equipment instead of requiring end-users to get permit (like R1111, 1121, 1146.2)
S-21	Permit	Amend Rule 219 to exempt standardized deminimis emission levels
S-22	Support (IM)	Update AQMD Web site more often – train more than one "Web Deputy" for SSC – it takes too long to get info update (for CPPs)
S-23	Workflow	Reeval. prescreening process. Return incomplete apps immed. w/expl.
S-24	Support (CPP)	Require CPP to periodically submit a mock app. The CPP must pass predetermined level of completeness and accuracy to be recertified.
S-25	Workflow	Bar-code permit application folders
S-26	Workflow	Develop INTRANET system for improving internal communication
S-27	Workflow	Tie the CLASS system to integrated Voice Response (VR) for applicants to check status of application. Do the same with the internet.
S28	Permit	Use data techs to work on Fac. permit revisions and admin. mods.

TABLE 4-4. AQMD Staff Ideas -- B

No.	General	Specific	Description
1	Rule	NSR	Bifurcate NSR permitting for major and nonmajor sources.
2	Rule	BACT	Exempt straight relocations from BACT requirements.
3	Permit	BACT	Redefine "achieved-in-practice" for LAER and BACT to include only those installed to comply with air pollution regulations.
4	Rule	NSR	Renegotiate with EPA the designation of Extreme Ozone Nonattainment based on the new 8-hr ozone standards.
5	Permit	BACT	Consider spray booth replacement as mod. If the basic coating oper. is not changed and emissions not incr., BACT should not be triggered.
6	Rule	PSD	Amend Reg. 17 (PSD) to level with federal program and temporarily suspend PSD delegation with Reg. 17 is being amended.
7	Permit	PSD	Develop PSD modeling and analysis methods.
8	General	Priority	Reprioritize appl. as follows: (1) Cert./reg. permits or other registered permits once developed, (2) Class I (p/c, relocation, c/c) with no or low emissions, (3) Class III (p/o, c/o) with no or low emissions or toxics, (4) Class I with higher emissions toxics, (5) Class III with higher emissions or toxics, (6) Final P/O for which a P/C has been issued. Facility Permit mods shall be similarly prioritized. Priorities for Plans and ERCs shall be determined on a case-by-case basis.
9	General	Priority	Establish the following goals for issuing permits (as R210 allows): (a) Priority #1; 7 days, (b) Priority #2 & #3: 60 days (45 days for CPP apps). (c) Priority #4 & #5: 180 days (90 days for CPP apps).
10	General	Priority	Amend R301 to allow apps to pay a reasonable amount of add'l fees in exchange for AQMD guar. permit del. time (e.g., the goals set for CPP apps). Add'l fee will be refunded if AQMD could not issue the permit in time. The add'l fees will be given to the resp. permit proc. team and the support teams (P/S, C/S, IM, etc.) as bonuses for meeting the goals.
11	Permit	Alternative	Issue P/C Registration for any equipment for which a P/C Registration Protocol is developed. Applicant is only to file P/O appl. after constr. is complete. The Registration Protocol for an equipment category may be developed by AQMD of by any interested party under the predetermined guideline and subject to AQMD approval.
12	Permit	Alternative	Expand PR222 Registration concept to include add'l area sources. Dev. specific protocols, for equipment included in this proposed rule.
13	Permit	Evaluation	Dev. and make the following info. available to the appl. and AQMD staff through the web site and other means: (1) permitting policies and proc., (2) equipment-specific permit appl. instr. to include all the reqs, methods to det. compliance and standard conditions, (3) standard eng. eval. protocol including equip. desc., background, process desc., emission calcs, rule eval., and permit conditions, (4) standard permits & conditions for frequently permitted equipment.
14	Support	Form	Revise appl. forms and data entry programs to include the essential info. and org. in a consistent, logical, efficient and easy-to-use manner.
15	Support	IM	Return all permitting databases to (Bcat/Ccat) system. The system is applicable to equipment permits, facility permits, registered permits,

			and other permit alternatives. No need to continue parallel SCC system.

4.1.5 Permit Streamlining Study Ideas

The following summary of ideas was independently arrived at by the Permit Streamlining Study Team.

1. Checks -- remove from applications immediately and process.
2. Prescreening – eliminate the pre-screening step or as an alternative, make it more robust.
3. BCat/CCat -- eliminate assignment of these codes during permit processing.
4. Project Sheets -- use application numbers as code numbers (15 or 30 min. incr.).
5. CEQA -- require engineers to screen for CEQA, not applicants.
6. CPP -- either no change or applications by CPPs are half-price.
7. Rule 1401 -- drastically simplify Rule 219 reqs., allow Tier 2 or higher for permit trigger.
8. Engineering Process Changes -- policy consistency between groups, BACT, etc.
9. Electronic Application Filing -- mandatory for all applications.
10. Information Management -- intranet mirror, local software, QA/QC, tracking, etc.
11. Project Management and accountability.
12. Registration or Permit-By-Rule.
13. Pre-Application Meetings – permanent group of “meeters” – answers within 24 hours or permit fee waived, must stick to answer or permit fee waived, promote consistency.
14. Engineer Training – update permit processing handbook, promote consistency of conditions.

The above ideas as well as others are briefly described below. Where conflicting ideas or sets of ideas exist, the solution rating system will help clarify the superior overall strategy (see Sections 4.5 and 4.6).

Pre-screening Strategies

1. Eliminate the pre-screening procedure. If applications are not rejected or are being corrected until complete, the task is not saving processing time. Much of the work to deem the permit complete must be redone by the permit engineer to become familiar with the applications and to gather information for emission estimates. This redundancy will be eliminated if the pre-screening procedure is eliminated. Any penalties for construction without a permit can be better assessed. In addition, the engineer would receive the application much earlier in the 30-day completeness determination process, thereby lessening the pressure to make a hasty decision on Day-29.

2. Require all applications to be submitted electronically. Stations for submittal would need to be placed in the AQMD lobby and possibly at "One-Stop" Permitting Centers. Accelerate implementation of the WARP II project. Create key fields in the electronic 400A and 400Ex forms that prevent acceptance unless complete. The New York State Department of Conservation is currently implementing an electronic program (see Section 3.2.3).

3. Make the pre-screening role the key position in the permitting process (contrary to Item #1). And, do not rotate people in and out, once a week—the position needs stability to instill accountability. The pre-screener should review the application thoroughly and reject any applications that are not complete. Add wording to the 400A form stating "the entire form must be completed and a complete 400EX must be submitted along with the required supplementary information (e.g., MSDS), or the application will be rejected." Increase the penalty for submitting an incomplete permit application. It is suggested that half the fees of the amount set forth in the Summary Permit Fee Rates tables be retained if an application is rejected because it is incomplete.

Policy Consistency Between Teams. We believe the policy inconsistency (BACT, etc.) is primarily due to a lack of communication between Teams. Better communication through training, an external oversight group or other mechanism may solve this inconsistency. Another solution may be to update the CLASS program to include new policies or make the policies available on the AQMD web page.

Engineers Inexperienced on Some Equipment. A potential solution would be for the permitting engineer to spend more time on field observation of equipment operation and provide training through experienced engineers. However, there are budget constraints that prevent frequent field observation.

BACT, Offsets. The permitting engineer would like to resolve all details of the application before contacting the applicants for BACT and emission offsets. We recommend that an engineer's priority should be to determine if BACT and emission offsets are, indeed, required. If so, the permit engineer should contact the applicant immediately. This gives the applicant time to research BACT and/or emission offsets. The applicant might cancel the application or use less-polluting basic equipment. The AQMD engineer may save valuable time by resolving time-consuming issues up front.

Tracking. The concept of treating applications as "projects" has several benefits and is standard practice by many state agencies (see Section 3). Both the actual time spent on a permit application and tracking could be done through electronic timecards or "Project Sheets." Time spent processing an application could be recorded at half-hour or fifteen-minute increments. The time can be recorded by application or project number (e.g., rule-writing or administrative tasks). By electronically logging Project Sheets, the amount of time spent per application and its location could be tracked daily or weekly depending on the period at which the Project Sheets are uploaded.

Actual quantitative information could then be collected for Fee Structure and Equity Studies. Application processing time is tracked electronically; therefore, no time will be spent estimating time spent on each application. The Fee Structure and Equity Study Team's time can be better spent on actual analysis of "real" quantitative information.

Additionally, recording application processing time on Project Sheets will indirectly increase accountability. Applications cannot be shelved or be passed-on continually without notice. Because applications are logged on Project Sheets, if people forget to log transfers of applications, or forget to work on applications, the error can be caught electronically and corrected quickly. Through weekly "aging" reports, management can ensure rapid processing of applications and address any problem applications.

Bar codes can be used to enhance tracking permit applications and allow for tracking the location of any application. There are two draw-backs to this procedure: (1) without the accountability of time cards, the probability of forgetting to scan the applications increases, and (2) bar codes only track locations or the amount of time an application stays in any location, it does not reveal the actual time processed (i.e., if an engineer is given ten applications, bar codes can be used to determine the amount of time the applications are with that engineer, but not the time spent on each application).

Bar codes at the application receipt phase and timecard tracking can be used together. In addition to tracking time spent on each application, the human-error factor is reduced. Wide distribution of bar coding for tracking, however, is impractical because bar code readers would have to be located at each AQMD staff's or contractor's computer for scanning the codes into their computers. Bar codes at stations or in each department would just duplicate information that could be obtained by information available by tracking time spent on applications by time card. Tracking via bar codes could also help in determining the status and location of reports related to the permit (e.g., source tests, health risk assessments, compliance plans, etc.).

CAPPS Upgrade. QA/QC and editing functions need to be added to the permit condition interface in CAPPS . This should be done at least when CAPPS is upgraded to a Windows based system. If CLASS is not upgraded to a Windows environment within a year, the DOS based permit condition interface should be updated with QA/QC functions.

Internet/Intranet Issues

- Modify the current security to allow all employees to access government sites (Sites that end with the extension .gov).
- Modify the current security to allow all employees to access select government sites (USEPA, DTSC, CARB, NIOSH, OSHA, etc.).
- Mirror environmental government sites on the intranet.
- Allow full access to the internet and monitor activity of employees.
- All four solutions may need additional software or hardware to implement the programs.

CEQA Issues

- Maintain the current use of the single CEQA question on the 400A. This approach may continue to evaluate certain large projects for CEQA while not contributing to any additional engineering backlog.
- Add additional questions to the existing 400A (not a separate form). Additional CEQA-related questions could be added to the 400A without the use of a separate form. This would eliminate the need for public outreach and education.
- Use the Form 400-CEQA, but have that form separated from the application package by Permit Services and sent to the CEQA group every day. If AQMD CEQA staff is available to review these forms, it may eliminate the additional burden on permit processing engineers. This system may be confusing, as the application would be separated and sent to two different AQMD divisions.

Rule 1401 Issues

- The revision to Rules 1401, 212 are necessary and will strengthen public protection from toxics through the addition of non-carcinogenic toxics.
- The current policy of capturing Rule 219 equipment based on Tier I screening will over burden the permit process unnecessarily. Equipment requiring written permits are considered an acceptable risk, if Tier II or Tier III screening is completed. Rule 219 already places limits on equipment. If Tier II screening is acceptable to permitted units, it should be acceptable for capturing equipment otherwise exempt under Rule 219.
- Currently, the AQMD cannot process all of the applications with significant risk or criteria emissions in a timely manner. The increase of permits for units with risk proven negligible by Tier II or III evaluations will over load an already burdened permit process and increase the burden on industry. Rule 219 may have a large impact on small business that in general have smaller units and a smaller number of units. Increased permit fees or equipment tracking based on equipment that pass Tier II, but not Tier I may not beneficial to public health or the South Coast Basin economy.
- The need for Tier III risk assessment adds a large delay to the permit process. This delay could be decreased by assisting facilities with a high potential to need a Tier III risk assessment to evaluate their equipment under Tier II. Based on the capacities of various equipment or the toxics processed within equipment, certain Rules require BACT, source testing or risk assessment. It should be simple to flag such equipment with the Form EX.
- Exemptions and standards for risk assessments should be standardized between Units and distributed to the permit engineers. This will decrease the number of times an application will be returned to the permit engineer by the supervisor for revisions. It will also reduce the amount of time the permit engineer spends attempting to acquire such unwritten standards or incorrectly processing an application. Correction of applications is a lengthy process that may include recalculating emissions and repeating processing steps. (If any part of CAPPS is modified, the application must be re-uploaded and NSR needs to redone if applications are reuploaded).

Source Testing. Several engineers expressed the possibility of designating an engineer with source testing experience within each unit, to review the large percentage of standard source tests (e.g., boiler NO_x limit compliance). The much smaller percentage of more difficult source tests (e.g., air toxics, VOCs etc.) would still be sent to the source testing section for review. The disadvantage of this recommendation is that it diverts resources from permit processing. However, the gain would probably greatly outweigh the diversion of resources because less time would be spent trying to hunt down lost source test reports or having the embarrassing task of requesting another copy from the facility.

CPPs. Potential suggestions for permit streamlining with respect to CPPs include the following:

- Keep the current system the way it is and remove the "three strikes" policy. The current system does not hinder the process and the approximately 300 applications are, most likely, more complete than other submittal packages. Also, the classes provide valuable training for many engineers whether or not they mark their applications with their CPP number. However, the current AQMD policy is to remove an engineer's CPP status if he/she submits three applications that require additional information. Even though this policy is very loosely enforced, it dissuades engineers from submitting CPP applications. More people may use the program if this policy is publicly acknowledged to be loosely enforced or if the policy is amended to count only rejected applications as strikes.
- Offer a reduced permitting fee to CPPs. The CPPs currently have little incentive to mark their submittal packages with their CPP identification number. A reduced permitting fee may encourage more applications in the future. This would also demonstrate a commitment by the AQMD to expedite review of these applications. However, offering a reduced permitting fee would also likely require the "three strikes" policy to remain in effect and also require more stringent CPP accountability and a much more detailed CPP accounting system.
- Guarantee a maximum time for permit review and issuance. This may also encourage additional applications to be filed by CPPs. There is currently no guarantee of the timeframe involved in permit issuance. As with the reduced fee, a maximum turnaround time guarantee would require more stringent CPP accountability and a more detailed accounting system.
- During an informal brainstorming session with AQMD staff, the idea of a more active role for CPPs was brought out. The following were potentially useful suggestions:
- CPPs could be provided booths at AQMD or "One-Stop" permitting centers to assist permit applicants on a "pro bono" basis.
- CPPs could pay for space at AQMD or "One-Stop" permitting centers to assist permit applicants.

Legal issues associated with the above suggestions were not investigated.

Form 400A Suggestions.

- Remove Title V information from 400A; have a separate form for Title V.
- Divide the non-Title V 400A into two parts, one for facility and company information, one for information on equipment
- Include a checklist of required information:
- Is fee included? Is it correct? Call 1-800-xxx-xxxx, if not sure. (separate fee worksheet?)
- Is the application signed?
- Is the supplemental form included and completed?
- Is the previous permit number entered for applications for change of conditions, modifications and change of ownership?

Network Security--INGRES Database Updates.

- Have IM or a contractor review the security measures and provide suggestions for modifications that may optimize the system.
- Review the security measures every time a large program like FPPS/SSPS is implemented to verify the security measures are still accomplishing what they were designed to do.

WARP II. The WARP II program is an excellent program for which continued development should be encouraged. Because applications are submitted electronically, companies can apply for any application type included under Forms 400-E-1 and 400-E-20 at anytime 24 hours/day, 7 day/week and 52 weeks/year.

The WARP II program can eliminate certain aspects of the pre-screening process by AQMD staff. If all applications are required to be submitted electronically, then the IngPerl program (part of WARP II) can ensure that all applications are deemed complete before the remote user submits the information. It is recommended that AQMD begin to require all applications to be submitted electronically. This can be done in a stepwise process.

1. Require all facilities that are required to submit annual fee reports electronically to also submit all permit applications electronically.
2. Require all RECLAIM or Title V facilities to submit permit applications electronically.
3. Place electronic application stations throughout the South Coast Basin (e.g. libraries, city halls, etc.)

AQMD Computer Systems -- Continued Network Upgrades

<u>Hardware</u>

- The District has sufficient desktop computers and walkup stations for particular applications such as Liberty. Loss of a portion of the Local Area Network (LAN) on a floor is not devastating, because resources are available elsewhere. However the backbone structure of the network has to be functioning. If the capacity of the network is exceeded or sufficient resources are not allocated to the primary portions of the network all dependent LAN will be affected. Access to the Central Information Repository supported by the INGRES Database Management System is restricted

or delayed when the network is unstable or down. The INGRES Database Management System is responsible for maintaining fee, accounting, emissions information, emission credits, facility information, and tracking information. With the breadth of information managed by INGRES, instability or loss of access to the network affects potentially all AQMD personnel. It is therefore of highest priority that funds are allocated to maintain and upgrade the network.

- The speed at which electronic programs and systems are being developed at AQMD is exponential. Within two years, all desktops were upgraded to 486 or Pentium based processors, Liberty was activated, all desktops were upgraded to Windows 95 and Microsoft Office 97 servers were upgraded, WARP II will be activated, CLASS was expanded to included RECLAIM and Title V, FPPS and SSPS will be activated, RACER will be activated, the jukeboxes for Liberty will be upgraded. The reconfiguration of the network has provided the stability to accomplish all of these activities and maintain everyday operations. It is important that funds be allocated to ensure that the network can be reconfigured and upgraded to provide for growth for projected projects as well as standard maintenance and upgrade.

Software associated with hardware control

- IM plans to replace the current Banyon based network operating system with Microsoft Windows NT. By replacing Banyon with NT, the network and desktop systems will be integrated. Currently Banyon and Windows 95 are run together. NT and Windows 95 share common features such as Outlook which is a set of Microsoft programs for communication (e-mail) and planning. This should add to the stability of the network. Also because of Microsoft's large share of the electronic market most applications required by AQMD should be easily bought off the shelf or easily programmed.
- If AQMD does replace Banyon with NT, Microsoft Outlook should be implemented as the communication and planning software. Outlook was included in Windows, NT and Office 97. There should be no increase in software cost to convert to Outlook, because it should already exist on all AQMD computers. Also, any upgrades to Microsoft operating or application suite software will include Outlook upgrades, thus no new independent upgrades should be required.

IM Interaction With Permit Engineers and Managers.

- Increased interaction between IM and permit engineers is needed especially for programs that are used directly by permit engineers. The interaction should take place between the same individuals over the whole project. Any objections or problems from either side should be conveyed through these mediators because they are the only people that are fully aware of issues and history of the project. Replacement of these teams before the project is completed can delay implementation and in some cases move the project back to the design phase because of preferences of the new teams.

- Users, especially those that interact with IM, need to be better trained in the systems available. During streamlining meetings and interviews, it was apparent that the users did not know simple, but necessary parts of the current electronic system

(e.g., most were not aware of the tracking capabilities within CLASS, locations of current lists of permit conditions for Title V, etc.). AQMD engineering services contractors had to learn how to use CLASS by talking to the CLASS maintenance contractor and by trial and error because documentation was not available or the location of the documentation was not known. Documentation for systems such as CLASS (Permitting, NSR, Facility, etc.), and Liberty are not readily available to users.

If the users are not aware or do not how to use the electronic systems, the systems are not useful and will not be used as designed.

- Policies need to be standardized and documented so they can be referenced and used by IM and permit processing engineers. Task forces or managers may need to be assigned to safeguard Forms or policies that are being used as bases for electronic systems. Task forces may been needed to optimize Forms or policies to include all issues or proposed projects before used by IM so that changes will not be needed as often. These managers or task forces will also prevent people from making changes without looking at the magnitude of the changes or alerting the divisions or other task forces that will be effected by necessary changes.

Pre-Application Conferences

AQMD should have, as part of the screening team (see below) experienced permit engineers who can meet with potential permit applicants well in advance of application submittal. Team members would discuss the proposed project and identify all regulatory requirements. They would have the knowledge and the authority to tell the prospective applicant what conditions must be met, and what information must be submitted, and what the correct fees are, for the application to be successful, given the information available at the time of the pre-application conference. When the application is submitted, review engineers must be made aware of statements and assurances made at the pre-application conference. Pre-application forms to set up or to document the meetings are also suggested.

Application Screening by a Dedicated Team

The screening team would be comprise experienced permit engineers who would have no other duties at the District; other engineering staff would not be rotated in. The team would screen all incoming applications for completeness within a publicly stated number of days. They, rather than non-technical administrative staff, would be the initial point of contact at the applications counter. Members would have enough knowledge, experience and authority to answer questions immediately or guarantee a response within 24 hours.

Immediate Check Deposit

All applications, whether complete or not, should be assigned an application number immediately upon receipt. A form letter providing the application number for future reference should be sent to the applicant the same day (or given to walk-in applicants at the counter). Checks submitted should be associated with the application number

and deposited as soon as physically possible, without a determination that their amounts are correct. Determination of the correct amount, and any necessary adjustments (refunds or invoices to the applicant) should be part of the application screening process.

Organizational and Management Suggestions

- Follow though with reorganization to separate teams into compliance and permitting activities.
- Institute a consistent and periodic review of all District personnel.
- Establish a management-by-objectives process.
- Establish a management system such as ISO 9000, ISO 14000 or a compliance assurance program based on the federal sentencing guidelines.
- Establish a task tracking system.
- Create a team that evaluates the permitting process with a time/motion study.

4.2 DISCUSSION SESSIONS

A brainstorming discussion session was held from 8 a.m. to noon, October 30, 1998 between a group of AQMD engineers, mediated by the Permit Streamlining Task Force facilitator, Ms. Cheryl Stecher. Previous AQMD discussion sessions were held earlier in 1998 and led to the ideas listed in Tables 4-3 and 4-4. A brainstorming session was held from 8 a.m. to noon, December 1, 1998 with a group of applicants. Summaries for these two brainstorming sessions are presented in Appendix D.

4.3 FEE STRUCTURE RECOMMENDATIONS

The fee structure and equity study final report was not available for review at the writing of this report. Preliminary recommendations such as daily timecard record-keeping are discussed in Section 2.

4.4 PERMIT STREAMLINING IDEAS GROUPED BY CATEGORY

The following are permit streamlining ideas grouped by category. For each category, comments are listed defining the problem followed by a listing of potential solutions. No judgment has been made on any comment at this point and in some cases comments are contradictory.

FEES

Problems

1. Application checks are not deposited quickly and in some cases, ever.
2. Fees are often miss-assigned.
3. There is no accurate and auditable way to assess a time-and-materials fee.

Ideas

1. Institute a Rule 301 hotline to help people calculate fees.
2. Increase the penalty for incomplete application.
3. A simplified fee structure would simplify customer service.
4. Checks be logged immediately upon receipt by AQMD.
5. Small business discount on permit fees.
6. Credit card payment of permit fees.
7. Loan guarantee programs.
8. Set up debit account for qualified applications to pay application fees.
9. Allow payment of permit app. Fees by credit card.
10. Fee applicability based on app. Postmark
11. Do not put finance hold on facility if total fees paid exceed fees due.
12. Checks - remove from applications immediately and process.

PERMIT SUPPORT SYSTEMS

Problems

1. The CLASS system is slow and Information Management (IM) is slow.
2. The computer system "goes down" a lot.
3. The NSR System is very difficult to use.
4. NSR system balances are not updated.
5. The BCAT/CCAT system is too cumbersome.
6. CAPPS system makes it difficult to customize permit conditions.
7. New computer system requires lots of typing.
8. There is no electronic archiving of permit applications.
9. Data entry in the computer during screening cannot be saved.
10. Computers are frequently down.
11. CAPPS is not flexible.
12. The process to update the database was reported to be deliberate and methodical, not quick and easy.
13. Network is not always available or stable.
14. The problems with CLASS are: (a) there is no up-to-date documentation for the CLASS system, (b) the system is not available when the network is down.
15. Permit wording macros need to be corrected.
16. QA/QC and editing functions need to be added to the permit condition interface in CAPPS.

Ideas

1. Permit processing handbook should be updated
2. Put more technical data on the AQMD webpage
3. Require all applications to be submitted electronically
4. Accelerate implementation of the WARP II project
5. Electronic 400A and 400 Ex forms that prevent acceptance unless complete

6. Load all application software to local hard drives on desktop computers
7. Modify the current security to allow all employees to access government sites
8. Modify the current security to allow all employees to access select government sites
9. Mirror environmental government sites on the intranet
10. Allow full access to the internet and monitor activity of employees
11. A permitting handbook for use by applicants and engineers
12. A permitting handbook has been useful to the engineers
13. The TNRCC uses a FoxPro database system to track the status of open and completed projects
14. The Gas Company developed a new database management system - intranet based
15. The Gas Company has electronic submission of plans
16. County Sanitation Districts provide an instruction booklet to applicants
17. Zurich has several ways to track claims electronically
18. Audit recommended: a) a keyword search capability in the Prescreening system
19. a computer fix to prevent data entry staff from entering data that conflicts with information input by the SSC engineer
20. a way to associate electronically the permit or application number as part of each transaction
21. Facility Permit Processing Software (FPPS)
22. WARP (now WARP II)
23. AQMD permitting homepage
24. Create a checklist for completeness verification
25. Create a fee worksheet
26. Create a computerized tutorial or expert system for filling out applications
27. Use "intelligent" SCC codes -- SCC codes enhanced by additional numbers
28. Automated Computer Expert System (ACES) was proposed
29. Applications accepted via Fax, telephone or computer modem
30. BACT manual
31. Standard permit conditions
32. Use of computers to expedite permitting
33. Registration of small sources
34. Renewal of operating permits every 5 years
35. Brochures or other permit assistance materials
36. Publish AQMD policies on internet, standardize app. format for CPPs
37. Use imaging, electronic workflow and other IM technologies for a paperless system initially for simple and then for more complex equipment
38. Allow electronic fund transfer credit cards for application fees to promote internet application submittal
39. Reduce redundant data entry by capturing data entered during prescreening
40. Minimize dup. ID creation by giving applicant preprinted labels for 400A
41. Reduce rejection rate by using completeness checklist, fee worksheet, and customized application forms
42. Use TQM system (e.g. ISO 9000, 14000) for cont. improvement
43. Require CPP to periodically submit a mock app. The CPP must pass predetermined level of completeness and accuracy to be recertified

44. Develop PSD modeling and analysis methods
45. Allow apps to pay a reasonable amount of additional fees
46. Make available permitting permit application Instr, engineering evaluation protocol and standard permits and conditions for frequently permitted equipment
47. Return all permitting databases to (Bcat/Ccat) system
48. BCat/Ccat - eliminate assignment of these codes during permit processing
49. Electronic Application Filing - mandatory for all applications
50. Engineer Training - update permit processing handbook, promote consistency of conditions (like Title V)

WORK FLOW

Problems

1. Getting information from the applicants is time consuming
2. Small sources have the most trouble filling out the permit applications
3. 30 days review is unworkable
4. Phone call system to the applicant is not practical
5. Rejection form letter does not have enough space
6. The 85% fees policy will not work
7. Engineers are rotated on prescreening duties
8. No one knows how to process a RECLAIM change of ownership
9. Engineers do not want to work the lobby desk
10. Problem applications stay in prescreening
11. Prescreening has probably slowed down the process
12. Gas stations are processed very quickly
13. The most frustrating aspects cited is the time involved in waiting for Permits to Construct
14. Applications are not completed in the order they are received
15. Difficult files are left for the next prescreener
16. Very few applications are rejected

Ideas

1. Engineers should be allowed to prescreen from their desks
2. Develop a prescreening checklist that must be passed or application is rejected.
3. One or two full-time prescreeners would be more consistent
4. They should limit the number of rejected applications
5. Possible to create such a module for emergency ICEs
6. Engineers should spend more time looking for compliance with BACT, ERCs and Rule 1401
7. A Rule 1401 template should be developed
8. Eliminate the RECLAIM program
9. Make prescreening the key position
10. Many parties have recommended that more equipment be precertified

11. Accelerated Permit Program (APP) allows a qualifying air pollution source or abatement device to be installed and operated under a temporary permit to operate
12. Commonwealth of Pennsylvania, Department of Environmental Protection (PADEP) issues general permits for classes of sources
13. TNRCC has a format unit, called the "CORE Section"
14. Texas has registration program for small sources
15. The County Sanitation Districts use templates created in WordPerfect 8
16. Claims data are at the finger tips of claims adjusters
17. Over-the-counter permitting
18. Satellite permitting centers
19. Rule 219 - eliminated 10 equipment categories (10,000 permits)
20. Certified equipment
21. Green carpet program
22. Accepting applications via fax or e-mail
23. Prescreening by teams
24. Accept all applications
25. Guidance to the permit streamlining act; AQMD has either implemented or evaluated all 43 measures
26. Certification and Registration (C&R)
27. Umbrella Permit (UP)
28. Tiered Emission Packages (TEP)
29. Precertification
30. Consolidation (facility permits)
31. Precertification of commonly used equipment
32. Consolidated permitting schedule for all sources within a facility
33. Expedited permitting for minor sources
34. Combined authority to construct and permit to operate for some sources
35. Appeals process for expedited permitting
36. Pre-application meetings
37. Pre-application forms
38. Applications screened for major omissions when submitted
39. Applications deemed complete/incomplete in less than 30 days
40. Standard completeness letters
41. Standard permitting policies and procedures
42. Accept apps. W/ 85% fee paid, 45 days for balance
43. Authorize direct access to app. files for CPPs
44. Focus on sources posing greatest environmental threat
45. Issue over-the-counter (or internet) Permit to construct Registration for any equipment for which a P/C Registration Protocol is developed.
46. Let individual Team receive and issue permits. Data entry staff to work dir. W/Team
47. Records Section should be open to permit processing staff at all times
48. Change prescreen policy to one phone call, not three, and assign a person responsible for resolving applications held in prescreening more than 7 days.
49. Reevaluate 7/30/180 designation, prioritize based on current requirements (e.g. 7/60/120)

50. Encourage more manufacturers to certify equipment instead of requiring end-users to get permit (like R1111, 1121, 1146.2)
51. Amend Rule 219 to exempt standardized deminimis emission levels.
52. Reevaluate Prescreening process. Return incomplete applications immediately with explanation
53. Bar-code permit application folders
54. Develop INTRANET system for improving internal communication.
55. Tie the CLASS system to integrated Voice Response (VR) for applicants to check status of application. Do the same with the internet.
56. Bifurcate NSR permitting for major and non-major sources
57. Exempt straight relocations from BACT requirements
58. Redefine "achieved-in-practice" for LAER and BACT to include only those installed to comply with air pollution regulations
59. Renegotiate with EPA the designation of Extreme ozone Non-attainment based on the new 8-hr ozone standards
60. Consider spray booth replacement as mod. If the basic coating operation is not changed and emissions not incr., BACT should not be triggered.
61. Amend Reg. 17 (PSD) to level with federal program and temporarily suspend PSD delegation with Reg. 17 is being amended.
62. Reprioritize application
63. Registration for any equipment for which a P/C Registration Protocol is developed
64. Expand PR222 Registration concept to include additional area sources
65. Prescreening - eliminate
66. Registration or Permit-By-Rule
67. Pre-Application Meetings - permanent group of "meeters" - answers within 24 hours of permit fee waived, must stick to answer or permit fee waived, promote consistency

TRACKING

Problems

1. Difficulty in tracking the time spent on each type of permit application
2. There is no tracking method
3. No tracking system for source test reports, health risk assessments

Ideas

1. A tracking system is needed
2. Track number of hours spent on various applications
3. Locating and evaluating the status of any application requires effort and time
4. Bar codes can assist in tracking permit applications
5. Bar codes and timecard tracking can be used together
6. Permit application tracking database
7. Colorado Department of Public Health and Environment Permit application tracking database system

8. AQMD establish a tracking system to monitor the status of applications
9. Track all permit applications; immediate ID assignment
10. Tracking systems to monitor permitting or emissions inventory
11. Investigate: standard permits, bar codes for tracking, app. Scanning, basic equipment minimum requirements.
12. App. Should be tracked as soon as AQMD receives it and all AQMD groups should use same number (source testing, planning, etc.)
13. Simplify status tracking system to track only essential steps, then systematically correct all data errors
14. Project sheets - use application numbers as code numbers (30 min. incr.)

FORMS

Problems

1. New 400A has lots of problems
2. Forms are difficult to complete
3. Form 400A type extremely compressed

Ideas

1. Remove Title V information from 400A
2. Divide the non-Title V 400A into two parts, one for facility and company information, one for information on equipment
3. Include a checklist of required information
4. The Gas Company has reviewed its forms and processes to eliminate redundant, time-consuming efforts
5. Simplified permit application forms
6. Reduce redundant data entry (when an application is received)
7. Minimize duplicate ID creation
8. Redesign Form 400A
9. Customize more application packages similar to service stations (this is currently in process). These packages should also have a pre-defined fee schedule listed.
10. Standardized application forms
11. Staple existing permits and add EPA requirements for Title V
12. Standardize app. Format for CPPs
13. More precertified equipment to qualify for registration
14. Revise application forms and data entry programs to include the essential information and organization in a consistent, logical efficient and easy-to-use manner

INTERACTIONS WITH OTHER DEPARTMENTS

Problems

1. Inconsistent advice between different engineers

2. RECLAIM permits and compliance are difficult
3. Source test reports take too long to be evaluated
4. Application evaluation is often delayed because of BACT requirement
5. Application evaluation is often delayed because of the offset requirement
6. Application approval is often delayed because of the public notification requirement
7. Only the managers have access to the internet
8. IM must be contacted access prior permit records
9. Detailed risk assessment is not evaluated by permit engineers
10. Large backlog affects how quickly a Rule 1401 assessment is reviewed
11. Under Rule 219, if equipment fails Tier 1 applications must be submitted
12. Permits are delayed by the completion and review of the risk assessment
13. Inconsistencies in exemptions or standards for requiring health risk assessment calculations, source tests or BACT increase the delay in permitting
14. Rules require BACT source testing or risk assessment
15. Source testing is required; standards are often unwritten and not consistently applied
16. Source test report is often lost

Ideas

1. Improve outreach for small businesses
2. The first thing is to determine whether BACT and emission offsets are required
3. Information Management is currently developing an automated application tracking program
4. The internet offers a wealth of material that is useful and updated
5. Maintain single CEQA question
6. Add additional questions to the existing 400A
7. Use Form 400-CEQA
8. Exemptions and standards for risk assessments should be standardized
9. Designating an engineer with source testing experience within each unit
10. Designated CEQA staff
11. Ministerial CEQA process for designated sources
12. Coordination with economic development corporations in explaining permit process
13. Questionnaires for feedback on permit process
14. Solicitation of industry recommendations for improving permit process
15. Coordination with city/county on building permits
16. Coordination of facility inspections with other agencies
17. Coordination with other agencies on contaminated soil cleanup
18. Coordination with other agencies on underground tanks
19. Coordination with other local, state or federal agencies
20. Revise the NSR module so that data are automatically copied over to new applications for all administrative change applications
21. Improve NSR module/procedures - most common delay according to engineers survey
22. CEQA - require engineers to screen for CEQA, not applicants
23. Rule 1401 - drastically simplify Rule 219 reqs, allow Tier 2 for permit trigger
24. Information management - intranet mirror, local software, QA/QC, tracking, etc.

MANAGEMENT

Problems

1. Policies are not always consistent between departments
2. Not enough staff
3. Engineers are not held accountable
4. Engineers not familiar with equipment assigned

Ideas

1. Use a consultant who "knows the ropes"
2. Increase training for engineers
3. Treating applications as "projects" has several benefits
4. Remove or lessen the "three strikes" policy
5. Offer a reduced permitting fee to CPPs
6. Guarantee a maximum time for permit review and issuance
7. CPPs could be provided booths at AQMD
8. CPPs could pay for space at AQMD
9. Project management for applications
10. SDCAPCD has had an active permit process improvement program
11. SDCAPCD uses a project manager approach
12. SDCAPCD has two incentive programs
13. SDCAPCD has a detailed time accountability system
14. One engineer performs all the analyses
15. TNRCC performs an emissions reduction analysis
16. At SCGC a single project manager is assigned to each application
17. The County Sanitation Districts have an Industrial Advisory Council
18. Dugout processing sessions
19. Contract engineers
20. CPPs - although marginal benefit was seen during 4 years of operation
21. Quicker review (7/30/180)
22. Privatization (CPPs)
23. Marketable permits
24. Training and certification of consultants
25. Training for business on the permit process
26. Receipt of applications acknowledged within 10 days
27. Applicant notified of District contact
28. Applicants provided with information sheets on common problems
29. Specialized staff for various source categories
30. Inspectors evaluate unpermitted sources
31. Hot line
32. Multilingual staff
33. Rules revisions
34. Implement BACT review committee prior to final actions
35. More training for permitting staff. Document all decisions

36. Staff training for improved consistency and efficiency
37. Allow flexible work hours including 5/8 week, job sharing, etc. to maximize available permit engineering hours
38. Use data technicians to work on Facility permit revisions and administrative modifications
39. CPP - either no change or applications by CPPs are half price
40. Engineering Process Changes - policy consistency between groups, BACT, etc.
41. Project management and accountability

4.5 RATING IDEAS AND RANKING SOLUTIONS

4.5.1 Method Overview for Rating and Ranking Permit Streamlining Ideas

The purpose of the ranking procedure was to determine which of the permit streamlining measures best meets the needs of the AQMD and of permit applicants. The product of the procedure is a list of measures, with the "best" at the top, and the rest ranked in decreasing order. Two terms that should not be confused with each other are rating and ranking.

Rating is a person's scientific or personal opinion about a particular measure, without comparison to any other measure. The rating is expressed as a number.

Ranking compares all the measures with each other, and listing them from "best" to "worst".

IDEAS/CATEGORY

Ideas were suggested during the Permit Streamlining information gathering. The ideas were divided by category. The categories included:

1. Fees
2. Forms
3. Interactions between permitting and other AQMD sections
4. Management issues
5. Application tracking
6. Permit processing
7. Support systems and procedures
8. Application work flow

CRITERIA

Each idea was rated against several criteria. The criteria included the following:

- System efficiency
- Responsiveness to external customers
- Effectiveness in meeting air quality mandates

- Provision of information to other AQMD programs
- Ease of Implementation
- Management

WEIGHT

Because all these criteria are not equally important to the AQMD, before implementing our ranking system, we asked the AQMD and Permit Streamlining Task Force to express an opinion about the relative importance of each criterion. A numerical value, called a "weight", was assigned to each criterion. For example, because "responsiveness to external customers" was believed to be twice as important as "provision of information to other AQMD programs", 20 was assigned to the first and 10 to the second. The final weighting was as follows:

Criteria	Weight
System efficiency	25
Responsiveness to external customers	20
Effectiveness in meeting air quality mandates	15
Provision of support to other AQMD programs	10
Ease of Implementation	20
Management	10

SUBCRITERIA

Since the criteria listed above were very general, two or more subcriteria were defined for each Idea. The subcriteria allowed examination of each permit streamlining measure in greater detail. The subcriteria were as follows:

System efficiency
Reduces processing time
Reduces labor requirements
Does not require capital investment and/or software development
Reduces nonlabor costs

Responsiveness to external customers
Decreases applicants' uncertainty about the permitting process
Assures consistency in rule interpretation
Assures equity in treatment of similar sources
Facilitates information submittal
Reduces unnecessary, unrealistic permit conditions
Decreases time and resource requirements for applicant

Effectiveness in meeting air quality mandates
Reduces actual emissions
Increases likelihood of actual compliance with Rules

Provision of support to other AQMD programs
Increases accuracy of emission estimates
Increases accuracy of fee calculations
Eliminates duplication of data gathering or storage for other programs

Ease of Implementation
Does not require staff training
Does not require staff reorganization
Does not require Board approval and/or new or amended rules
Does not require change in SIP
Accommodates changing requirements without major redesign

Management
Increases employee morale
Increases individual accountability

EVALUATION

Once the permit streamlining ideas, criteria, subcriteria, and criteria weights were defined, the ideas were evaluated as follows:

1. Five members of the AVES team were chosen as evaluators.

2. A database was developed to present one idea at a time along with the subcriteria. Evaluators considered each permit streamlining idea, one idea at a time. A list that referenced the idea to the draft Streamlining Report and instructions for rating were given to each evaluator.

3. The evaluators rated each idea against each of the subcriteria. This was done by choosing a number between +3 to -3 (including zero), representing a range of opinions from most to least favorable. A few of the subcriteria were evaluated only at 3, 0, or -3 (true, not applicable or false). An example of this was the subcriteria "does not require Board approval and/or new or amended rules". Some were evaluated at 3, 0, -1,-2, or -3 (true, not applicable, slight negative impact, negative impact, great negative impact). This was used for "does not require staff training".

4. The table that holds the rated ideas from each evaluator was imported into another database. All calculations were completed within this database. Each subcriteria rating from each evaluator was averaged, so that each idea had one rating per subcriteria.

5. Then for each criterion, the ratings for all the subcriteria were averaged. This average was referred to as a "criterion score."

6. Then each criterion score was multiplied by the corresponding criterion weight. The product of these numbers was called the "weighted criterion score."

7. Next, all the weighted criterion scores were added together. The sum was divided by the sum of all the criteria weights. This value was called the "idea score." The "idea score" ranged from 3 to -3.

8. The list of "idea scores" were then sorted by idea score and also by idea score per category. The sort of idea score per category produced more meaningful results, because some criteria/subcriteria were not meaningful within a given category. For example, "increases accuracy of emission calculations" does not apply to fee category ideas.

The result of this exercise was ranked lists of permit streamlining ideas divided into categories. Those ideas that ranked high were considered the "best" and were then called solutions. The rankings were graphed against each other per category and a natural break in the rankings were used to collect the "best". For example, when the Fee Category rankings were compared, a natural break occurred at 0.60.

4.5.2 Ranking of Solutions

Table 4-5. Solutions Related to Fees

Solution	Score
Immediate Solutions (<3 Months)	
Accountability/Fee Study – Record actual time spent on each application, so Fee Study group has actual data to average.	0.69
Short-Term Solutions (3-6 Months)	
Create a fee worksheet for the applicant (ease and standardization.)	1.08
Assistance to applicant Institute a Rule 301 hotline to help people calculate fees.	0.83
Make applications submitted by CPPs half price.	0.69
Make fee applicability based on application postmark.	0.64
Long-Term Solutions (>6 Months)	
Incomplete Fees or Forms – Increase the penalty for incomplete applications as a deterrent.	0.88
– Efficient Check Processing – Remove checks from applications immediately and process them instead of holding them until after processing or prescreening. – Immediately assign an application number to an application when received despite completeness or fees. – Associate check with application given at time received (i.e. assign application number immediately upon reception). – Deposit check immediately upon receipt. – Automation of accounts receivable and CLASS system to enable automation of refund check processing.	0.67

Table 4-6. Solutions Related to Forms

Solution	Score
Immediate Solutions (<3 Months)	
Send facilities the "inspectors view" Title V permit (all wording and conditions per permit unit on one form.)	0.84
Short-Term Solutions (3-6 Months)	
Give the CPPs the same forms and guidelines that the engineering staff uses.	1.32
– Standardize permit application forms. – Customize more application packages similar to service stations with a predefined fee schedule. – Have one department in charge of forms so that changes are not made as often. – Insure that IM has input on forms because databases and applications are based on forms. – Require that all departments agree on any change to forms to prevent the forms from changing as often and ensure that important fields are not dropped. – Develop form EX which will flag equipment types that automatically require source test, BACT or risk assessment (e.g. Boilers over x mmbtu/hr need BACT, boilers over x mmbtu/hr BACT and source test, chrome tanks over certain amp-hours need risk assessment, etc.	1.27
Examples, i.e. Prefilled out forms.	1.02
Standardize application format for CPPs.	0.93
Long-Term Solutions (>6 Months)	
– Simplify permit application forms. – Revise forms color code information that is mandatory or application is rejected automatically. – Place wording on 400A Form that states that application will be rejected if entire form is not completed. – Include a checklist of required information with application. – Create permit application forms that are easy to read (font on current forms is too small). – Have more precertified equipment to qualify for registration. – Ensure that application forms and data entry programs include the essential information and organization in a consistent, logical, efficient and easy-to-use manner.	– 1.01

Table 4-7. Solutions Related to Interactions with Other Sections

Solution	Score
Immediate Solutions (<3 Months)	
Designate an engineer with source testing experience to each unit.	0.95
– Have IM present project team with on-line capabilities and planned additions. – Keep same team of engineers and District project members throughout the duration of long and major IM projects (changes to the personnel often cause the retraining of new members and redesign of newly programmed systems to please new team not necessarily because changes are beneficial. – Train users that interact with IM with the processes in question, especially teams that have input on large systems (it is not wise to have managers who do not use the system critique the system). – Develop system to keep IM informed, policies need to be systematized and given to IM else they will not be incorporated or planned for in the design of new and existing systems.	0.88
Short-Term Solutions (3-6 Months)	
Develop training and cross training programs across permitting, source test, health risk assessment.	0.99
Improve coordination with economic development corporations and small businesses in explaining the permit process.	0.85
Have IM show substantive changes to programs, i.e. training on where and how to use these changes.	0.79
Long-Term Solutions (>6 Months)	
Present to the public the legal and practical implications of certain processes: HRA (screening refined), BACT, etc. to help them better plan, redesign or cancel plans before submitting applications.	0.96
Create a division that fields compliance and planning issues for industry that is not tied to enforcement (Allows anonymous questions).	0.76

Table 4-8. Solutions Related to Management Issues

Solution	Score
Immediate Solutions (<3 Months)	
– Posting of Standards – Place permitting policies and procedures on Intranet. – Place equipment-specific permit application instructions to include all requirements, methods to determine compliance and standard conditions on Intranet. – Place standard engineering evaluation protocol including equipment descriptions, background, process description, emission calculations, rule evaluation, permit conditions on Intranet. – Place standard permits and conditions for frequently permitted equipment on Intranet. – Create consistent standard policies and procedures for all evaluation teams or groups. – Document all policy decisions and post electronically.	1.41
– Require managers to submit business plans for their divisions. – Require business plans to include efficiency and cost reduction. – Hold managers accountable to business plans.	1.06
Publicly acknowledge non-use of "three strikes" policy for CPPs.	0.90
Promote customer satisfaction for internal and external clients, through feed back forms. – Provide a formal means for feedback from industry on the Permit Processing.	0.83
Develop management by objectives reviews in which employees set goals and growth plans with superiors.	0.82
Short-Term Solutions (3-6 Months)	
Reward units or divisions that better business practices.	1.16
Increase training and incentives for staff engineers, consultants and businesses to improve applications policy consistency.	1.09
Develop routing audits to help reinforce management goals.	0.92
Allow engineers to add conditions to the standard conditions as needed.	0.89
Provide CPPs consultation space at AQMD (free or cost).	0.85
Provide management and productivity skill classes.	0.81
Decide ideology moving all permits toward facility type permits, or toward single permit unit permits (policies tend to swing back and forth undoing each other).	0.80

Table 4-8. Solutions Related to Management Issues (continued)

Solution	Score
Long-Term Solutions (>6 Months)	
– Standardization – Standardize exemptions and standards for risk assessments (especially for common equipment). – Place standard conditions into database that is accessible to all engineers. – Capture permit wording and conditions on network (currently only on desktop). – Collect existing permit wording and conditions from desktops and place into network. – Have database pull most common conditions per application type (BCAT/CCAT) to limit the amount of search time for standard conditions. – Make all condition additions to database through one or a team of people to retain standardization. – Have desktop computers flag repeated common conditions for submittal to standard condition pool.	1.32
Reduce QA/QC load by standardization of permit process.	1.11
Hire management that have proven management skills.	0.93
Use TQM system (e.g. ISO 9000, 14000) for continuous improvement.	0.82
Require management and productivity skill classes for employees that are not meeting goals agreed to by employee and supervisors in previous reviews.	0.80

Table 4-9. Solutions Related to Application Tracking

Solution	Score
Short-Term Solutions (3-6 Months)	
Develop standard permits with basic equipment minimum requirements.	1.10
– Develop a method to track source test, risk assessments, and CEQA reports electronically that is tied to the application number, so that the engineer knows if such documents have been received and where to find them. – Develop a database management system to track location of the applications between locations and notify managers electronically. – Track all permit applications in database; immediate ID assignment. – Use bar codes for tracking. – Bar-code permit application folders. Use bar codes to track all application related material such as source test, risk assessments, CEQA, etc. (currently applicants complain that District loses supporting documents). – Add a way to associate electronically the permit or application number as part of each transaction. (less confusion, numbers assigned by prescreening now.)	1.10
Long-Term Solutions (>6 Months)	
Assign a unique number to each piece of permitted equipment and store all historical data under the equipment number, currently historical data has to be traced from modification to modification (each request can take a day). This would allow equipment to be traced if sold or relocated (i.e. inter-facility tracking).	1.11
Assign a team to investigate the wide disparity in the time to process similar equipment between the units. Apply streamlining techniques used by the more efficient unit to the other units and post practices to increase standardization.	1.05
Accountability/Tracking – Implement a project management program for applications; one engineer performs all the analyses; assumes accountability. – Project sheets - use application numbers as code numbers. – Connect projects sheets with timecard system (new system is capable). – Use capabilities of PeopleSoft to track time spent on applications. – Track time on timecards spent on applications (same bar code).	1.05
Assign a team to investigate the amount of time and effort required to modify or change conditions on a permit. Engineers have complained that the historical and new research are unavailable or not useful.	0.87

Table 4-10. Solutions Related to Application Processing

Solution	Score
Immediate Solutions (<3 Months)	
– Limited internet access – Modify the current security to allow all employees access to selected government internet sites (less time in library and research). – Have information management develop - intranet mirror of important sites.	1.04
Allow full access to the internet and monitor activities.	0.93
Reprioritize, Require engineers to process applications in a certain order to ensure that lengthy or time-consuming processes are completed up front (BACT, emission offsets, health risk assessments, source tests, or public notification) (facilities may cancel application or alter if original application is noncompliant).	0.92
Short-Term Solutions (3-6 Months)	
Rule 1401 - drastically simplify Rule 219 requirements, allow satisfying Tier 2 as a means to have equipment remain Rule 219 exempt.	1.18
Create forum to resolve inconsistencies and polices between units. Part of lack of standardization is lack of forum to interact and compare policies and standards.	1.14
Develop training and cross training programs.	0.95
Complete a users manual for CAPPS or replacement computer system.	0.94
Require engineers to attend certain number of field evaluations to increase experience. Engineering and rule evaluations are desk jobs now, reducing actual hands-on experience.	0.93
Allow facility permits to be printed in parts, currently only whole permit can be printed.	0.84
Train staff on Rules. Summaries of impacts of rule changes on permit process (e.g., restore Rule Interpretation Group).	0.82
Long-Term Solutions (>6 Months)	
A permitting handbook should be updated for use by applicants and engineers; i.e. instruction booklet. (Standardization.) – Develop a Rule 1401 template. – Develop a Rule 1401 handbook for different equipment types or attach to new permit handbook.	1.49
Develop a BACT manual (education, standardization). – Publish BACT guide lines as they become available on the web. – Publish new version of BACT guidelines. – Implement BACT review committee to finalize actions.	1.21
Have specialized staff for various source categories.	1.04
Create an automated computer expert system (ACES) to assist permit processing and keep data on unique equipment.	1.00
Create pamphlets to instruct on completing application forms.	0.94
Improve NSR module/procedures, data should automatically be copied over to new applications for all administrative change applications.	0.91

Table 4-11. Solutions Related to Permit Support Systems

Solution	Score
Immediate Solutions (<3 Months)	
Publicize list of manufacturers approved for the over-counter permits. – Place list of manufacturers approved for the over-counter permit process on the web. – Give permit services the list of manufacturers approved for the over-counter permits.	1.22
Create a checklist per form for prescreeners to verify application completeness (add QA/QC).	1.22
Develop instructions for Tier I and Tier II for applications that require risk assessment and potentially will require Tier III. (If a facility greatly fails Tier II, it knows a Tier IV risk assessment is needed.)	0.99
Permanent Lobby Duty staff. Currently data entry staff take turns 2 days/month. Cannot do normal duties from lobby. Use staff that can interact with industry and answer questions and concerns.	0.99
Keep fee sheets current in database, data entry does half calculations manually from manually generated sheets because database is not updated.	0.98
Update BCAT/CCAT (used by AQMD to calculate fees, not seen by public) to match Rule 301 (used by public). There have been credibility issues when fees do not match.	0.82
Continue to load all application software to local hard drives on desktop computers (able to work when network is down).	0.81
Short-Term Solutions (3-6 Months)	
Establish AQMD permitting homepage (4.1.1 2) – Put links to technical data on AQMD web page (e.g. EPA AP-42). – Put default emission factors on the AQMD web page.	1.11
Accelerate WARP II implementation.	1.00
Add a keyword search capability in the Prescreening system (reduce time).	0.85
Long-Term Solutions (>6 Months)	
Create a computerized tutorial or expert system for filling out applications (education).	1.22
Reduce redundant data entry by capturing data entered during prescreening in the database. – Have prescreeners enter what additional elements are required before approving permit. (BACT, source test, risk assessment, ERCs) so engineers do not have to reevaluate what is missing again when they receive the application.	0.96

Table 4-11. Solutions Related to Permit Support Systems (continued)

Solution	Score
Create pamphlets to instruct on completing application forms.	0.94
Test CPPs – Require CPPs to periodically submit a mock application. (education, QA/QC) – The CPPs must pass predetermined level of completeness and accuracy to be recertified (education, QA/QC). – Record data on CPPs for better evaluation.	0.83
Require all applications to be submitted electronically; electronic 400A and 400 Ex forms can prevent acceptance unless complete. – Require all facilities who submit annual fee reports electronically to submit permit applications electronically. – Require all RECLAIM or Title V facilities to submit permit applications electronically. – Accept applications via fax or e-mail.	0.81

Table 4-12. Solutions Related to Work Flow

Solution	Score
Immediate Solutions (<3 Months)	
Create pre-application forms.	1.51
Develop policy of pre-application meetings.	1.39
Create a detailed criteria for rejecting permits.	1.16
Engineers should be allowed to prescreen from their desks (so information is available when applicants call back.	1.08
Have prescreeners reject applications that are missing additional required reports or information (BACT, source test, risk assessment, ERCs).	1.08
Return incomplete applications immediately with explanations. – Applications screened for major omissions when submitted and immediately rejected if omissions are found.	0.97
Have expedited permitting for minor sources.	0.94
Consider spray booth replacement as a modification. If the basic coating operation is not changed and emissions are not increased, BACT should not be triggered.	0.94
Assign a person responsible for resolving applications held in prescreening more than 7 days.	0.93
Have full-time prescreeners to increase consistency.	0.92
Have prescreeners send out letters to applicants that need BACT, source test, risk assessment, ERCs.	0.91
Make prescreening the key position. – Add incentives to become a prescreener (increased pay or title for this as a full time position).	0.89
Deem complete/incomplete in less than 30 days.	0.89
Short-Term Solutions (3-6 Months)	
Permanent group of "meeters" provide answers within 24 hours or permit fee is waived, must stick to answer or permit fee waived; promote consistency.	1.24
Create a precertified module for emergency ICEs.	1.10
Registration or Permit-By-Rule. – Issue over-the-counter (or internet) Permit to Construct Registration for any equipment for which a P/C Registration Protocol is developed. – Consider Certification and Registration (C&R). – Register small sources rather than submitting them to the standard permit process (reduce amount of time). – Issue general permits for classes of sources. Register any equipment for which a P/C Registration Protocol is developed. – Encourage more manufacturers to certify equipment instead of requiring end-users to get permit (like R1111, 1121, 1146.2). – Establish and execute more equipment to be precertified. – Fund expansion of over-the-counter permitting.	1.02

Table 4-12. Solutions Related to Work Flow (continued)

Solution	Score
Combined authority to construct and permit to operate for sources that do not have to be source tested.	0.96
Limit the amount of time an application can remain in the prescreening process before automatically rejected.	0.94
Long-Term Solutions (>6 Months)	
Amend Rule 219 to exempt standardized de minimis emission levels.	1.10
Create team to find the largest bottlenecks and apply express processing to those areas.	0.93
Prescreening – eliminate, transfer responsibilities to processing engineers. – Let individual units receive and issue permits (i.e. eliminate permit processing and prescreening.)	0.89

4.5.3 Solution Trends

SUMMARY OF SOLUTION TRENDS

The results presented in Tables 4-5 through 4-12 can be further distilled and prioritized into trends as follows:

1. Better Communications -- A great many high ranking solutions related to the need for better communications.
   - Between departments (IM, source testing, toxics, health risk assessment) and units (e.g., greater use of Web, permitting manual, BACT manual, staff cross-training, pre-application meetings, ACES expert system)
   - Customer Assistance - Much of what the District requests and does is a mystery to the permit applicants. Rules such as Rule 301 are long and use specialized technical verbiage. A fee worksheet, example completed forms, hotlines, “meeters” and pre-application meetings were requested by the applicants.

1. Standardization

Standardize forms for submittal.

- CPPs do not have standardized forms, nor are they given the format that the engineers use.
- The fee schedule used by the public (Rule 301) is not what is used by the District (BCAT/CCAT)
- Application forms have changed several times over the years and are still used by the public.
- Standardize polices - Policies are different between groups. Both District and public complained that this produces inconsistencies between similar devices on the same site, similar equipment at different companies.
- Standardized Permits -- Another set of high ranking solutions related to expanding the use of equipment certification, registration, etc.

1. Policy Distribution and Business Practices -- One of the highest ranking solutions listed the need for summary of policy that can be easily accessed (posted on the Web). Policies are distributed by memo, but then are difficult to find latter. A number of business practices were also high ranking, including project management for applications and recording time spent on applications.

2. Reject Incomplete Applications -- Four high ranking solutions emphasize this point.

3. Tracking -- Engineers need to track source tests, HRAs and equipment (i.e., unique equipment number).

4. Training - Part of standardization is training. Both the public and District personnel requested summaries or commentary on the practical implications of rules that are updated regularly. District personnel requested better awareness and training on current systems and applications, e.g. computer systems, source testing, health risk assessments, and field evaluations.

5. Rules 1401/219 -- The latest amendment to R1401 demonstrates the need to coordinate with R219 (allow Tier III or Tier IV for exemptions). Enhance the current R1401 manual with respect to permitting implications. Amend R219 by adding emission limit exemptions.

6. Permanent Positions - District personnel expressed overall displeasure with rotational positions, i.e. prescreening and lobby duty. Inconsistency, break in routine, difficulty in contacting facilities or other District personnel in the short time responsible for rotational position, and the passing on or neglect of unresolved or difficult issues were sited as problems.

7. Specialized Staff -- The move away from staff expert with individual types of equipment is problematic, especially relative to large facility permits. This could be remedied by reverting to specialized equipment groups and would also improve policy consistency.

8. Prescreening -- The highest ranking prescreening related solution was for engineers to prescreen from their desks. Other solutions involved having full-time prescreeners (instead of rotating once every week or two weeks), giving an incentive to become a full-time prescreener.

9. Project tracking – Analysis of District activities is difficult because the actual time to accomplish tasks at the District is not tracked. Estimates of time spent are anecdotal and based on recall. Because of the variety of equipment and because similar pieces of equipment may trigger different rules (Rule 1401, RECLAIM, Title V, offsets) subjective estimates provided by recall may not be accurate enough to base policy issues upon, but require further investigations. Tracking of specific

project events even over short windows of time will provide actual objective information.

10. CPPs - The CPP program needs to be strengthened or left as is. Better training, better forms, testing, booths at the District or reduced fees were ranked well.

IDEAS THAT CONTRADICT EACH OTHER WITHIN PROGRAMS OR PROCEDURES

CPP Program

The CPP program was developed to increase the number of complete applications the AQMD receives. Incomplete applications cause a backlog as engineers wait for more information. There is also a large amount of time required to request information, review information sent and revise or request additional information.

There are two alternatives to deal with the CPP program:

1. Keep the CPP program as it is, with minor modifications.
2. Increase the stringency and benefits of the CPP program.

Some of the solutions will improve the program for either alternative.

General Improvement Solutions

Forms	Give the CPPs the same forms and guidelines that the engineering staff uses.	1.32
Forms	Standardize application format for CPPs.	0.93
Management	Provide CPPs consultation space at AQMD (free or cost).	0.85

The two alternatives had solutions that scored well in the solution evaluation. However, the alternatives are contradictory in nature, so care must be taken to implement solutions consistent with overall permitting goals.

Increase the Power of the CPP Program

Fees	Make applications submitted by CPPs half price.	0.69
Support	Test CPPs • Require CPPs to periodically submit a mock application. (education, QA/QC) • The CPPs must pass predetermined level of completeness and accuracy to be re-certified (education, QA/QC). • Record data on CPPs for better evaluation.	0.83

Minor Change to the CPP Program

Management	Remove "three strikes" policy for CPPs.	0.90

Comparison

Removing the “three strikes” policy because it is not well defined will weaken the program, because it removes accountability of the program. But, if the policy is not defined and enforced consistently it is inequitable and not useful. If the CPP program is just to educate and increase the number of complete applications, then this is a good idea. This idea scored higher than those that increase the power of the CCP program.

Giving CPP applications a reduced fee increases incentive, but it may be seen inequitable to a facility that cannot afford a large environmental budget. To grant the reduced fee, the “three strikes” policy must be strictly employed, or the AQMD will not receive any benefits. The same is true for offering consultation space at the AQMD. Testing the CPPs does not make sense unless there is some benefit to the AQMD and to CPPs, because of the amount of time and effort it would take to create the test, administer the test, grade the test, take the test, etc.

Prescreening

Like the CPP program, Pre-screening solutions can be arranged into three alternatives:

1. Eliminate the Prescreening Program.
2. Strengthen the Prescreening Program.
3. Keep the Prescreening Program as it is.

General Improvement Solutions

Support	Create a checklist per form for pre-screeners to verify application completeness (add QA/QC).	1.22
Work Flow	Create a detailed criteria for rejecting permits.	1.16
Work Flow	Engineers should be allowed to pre-screen from their desks (so information is available when applicants call back.	1.08
Work Flow	Return incomplete applications immediately with explanations. • Applications screened for major omissions when submitted and immediately rejected if omissions are found.	0.97
Work Flow	Have pre-screeners reject applications that are missing additional required reports or information (BACT, source test, risk assessment, ERCs).	1.08

Support	Reduce redundant data entry by capturing data entered during prescreening in the database. • Have pre-screeners enter what additional elements are required before approving permit. (BACT, source test, risk assessment, ERCs) so engineers do not have to re-evaluate what is missing again when they receive the application.	0.96
Work Flow	Limit the amount of time an application can remain in the prescreening process before automatically rejected.	0.94
Work Flow	Have pre-screeners send out letters to applicants that need BACT, source test, risk assessment, ERCs.	0.91
Work Flow	Deem complete/incomplete in less than 30 days.	0.89
Support	Add a keyword search capability in the Prescreening system (reduce time).	0.85

Increase the Power of the Prescreener

Work Flow	Have pre-screeners reject applications that are missing additional required reports or information (BACT, source test, risk assessment, ERCs).	1.08
Work Flow	Have full-time pre-screeners to increase consistency.	0.92
Work Flow	Have pre-screeners send out letters to applicants that need BACT, source test, risk assessment, ERCs.	0.91
Work Flow	Make pre-screening the key position. • Add incentives to become a pre-screener (increased pay or title for this as a full time position).	0.89

Eliminate the Prescreener

Work Flow	Pre-screening – eliminate, transfer responsibilities to processing engineers. • Let individual units receive and issue permits (i.e. eliminate permit processing and pre-screening.)	0.89

Comparison

If the pre-screener position is to be eliminated, then the solutions that increase the power of the pre-screener do not make sense. But, if the pre-screener position is to be kept one solution is to centralize the position.

Internet Access

Processing	Limited Internet access • Modify the current security to allow all employees access to selected government Internet sites (less time in library and research). • Have information management develop - Intranet mirror of important sites.	1.04
Processing	Allow full access to the Internet and monitor activities.	0.93

Internet access must either be full access or must be limited, both cannot be implemented.

IDEAS THAT CANNOT BE IMPLEMENTED ALONE

Completeness Penalties

Some solutions require other solutions or activities to promote equity and ensure their success. For example, if increasing the penalty for incomplete applications as a deterrent is chosen for implementation, incomplete applications must be defined and aid must be provided to the applicants.

Fees	Incomplete Fees or Forms • Increase the penalty for incomplete applications as a deterrent.	0.88

Applicant Assistance to Complete Applications

Forms	Standardize permit application forms. • Customize more application packages similar to service stations with a predefined fee schedule. • Have one department in charge of forms so that changes are not made as often. • Insure that IM has input on forms because databases and applications are based on forms. • Require that all departments agree on any change to forms to prevent the forms from changing as often and ensure that important fields are not dropped. • Develop form EX which will flag equipment types that automatically require source test, BACT or risk assessment (e.g. Boilers over 1 mmbtu/hr need BACT, boilers over 1 mmbtu/hr BACT and source test, chrome tanks over certain amp-hrs need risk assessment, etc.	1.27

Support	Create a computerized tutorial or expert system for filling out applications (education).	1.22
Fees	Create a fee worksheet for the applicant (ease and standardization.)	1.08
Forms	Examples, i.e. Pre-filled out forms.	1.02
Forms	Simplify permit application forms. • Revise forms color code information that is mandatory or application is rejected automatically. • Place wording on 400A Form that states that application will be rejected if entire form is not completed. • Include a checklist of required information with application. • Create permit application forms that are easy to read (font on current forms is too small). • Have more pre-certified equipment to qualify for registration. • Ensure that application forms and data entry programs include the essential information and organization in a consistent, logical, efficient and easy-to-use manner.	1.01
Support	Develop instructions for Tier I and Tier II for applications that require risk assessment and potentially will require Tier III. (If a facility greatly fails Tier II, it knows a Tier IV risk assessment is needed.)	0.99
Support	Create pamphlets to instruct on completing application forms.	0.94
Fees	Assistance to applicant Institute a Rule 301 hotline to help people calculate fees.	0.83

Forms must be standardized and streamlined, checklists must be added for the applicant, necessary information must be separated or called out separately from unnecessary information. The extent to which instructions and information must be provided, is the extent to which completeness is required.

Section 5

RECOMMENDATIONS

5.1 THE BIG PICTURE

In a perfect world with infinite funds and resources available and where change does not happen, it would be possible to discard what is perceived to be wrong and start fresh to build consistent, robust systems. The AQMD does not have that luxury. Instead, the AQMD must operate within its fiscal limitations while continually reinventing itself to accommodate changes in its regulatory mandates, the changing needs of those it regulates, and changes in technology.

This is further complicated by competing interests of the many divisions within the AQMD. For the permitting process to work efficiently, all divisions (SSC, Planning, Finance, IM, ASTD, etc.) must work in concert. And within SSC, it is crucial that teams conform to consistent permitting policies. Thus, the big picture must include both internal and external factors to optimize permitting and performance.

How do the solutions presented in Section 4 fit into the big picture? After all, in many cases, these solutions have no apparent connection. And, indeed, they were not actively screened for consistency with an overarching plan. Instead, the procedure was to rate the ideas, look for trends, then compile comprehensive recommendations that address the “areas of concern.”

Areas of Concern

Areas of Concern were identified by analyzing the eight solution categories:

1. Fees
2. Forms
3. Interactions between permitting and other AQMD sections
4. Management issues
5. Application tracking
6. Permit processing
7. Support systems and procedures
8. Application work flow

Within these eight categories, the 12 solution trends identified at the conclusion of Section 4, suggested that the primary areas of concern were related to (1) reducing the time required to process permits, (2) enhancing internal and external communications, (3) the serious resource draw created by facility permit processing (RECLAIM and Title V), and (4) addressing organizational and management issues (e.g., performance measurement, continuous improvement systems, etc.).

5.2 KEY FINDINGS AND RECOMMENDATIONS

The highest ranking solutions that would streamline permitting and reduce time required to issue permits were grouped to address the most serious permitting process problems or "areas of concern":

1. Time Required to Issue Permits
2. Communications
3. Facility Permits
4. Management and Organization Issues

The discussion for each of these "areas of concern" is organized to:

- Describe the concern.
- List the most significant problems associated with the concern.
- List recommendations to address those problems.

Not all of the problems listed in Sections 2 and 4 are addressed in this section. The primary consideration was to focus on solutions to problems that would provide a high rate of return. We have not included low-level problems or problems where the identified solutions would require large resources or cause equally negative impacts.

AREAS OF CONCERN

CONCERN #1 – <u>Steps Required to Issue Permits</u>. In an effort to process the large number of applications received each year in an orderly fashion, the AQMD's permitting workflow has evolved into an extremely complicated process that involves many steps. With few exceptions, each application journeys through the same process regardless of its type and complexity. Bottlenecks and delays are possible at each step of the process. Often, the actual processing time for a conventional (non-facility type) equipment permit is relatively short when compared to the lengthy waiting time that can happen when encountering a bottleneck.

Of the actual processing time, engineering evaluation is the most time-consuming because of the nature of the individual steps that an engineer must take. These steps include the initial examination, requesting additional information (from the applicant), meetings, historical research (internal), emission calculations, rules analysis, BACT analysis, toxics analysis, offsets analysis, computer entry, discussion of the application with the supervisor/senior engineer, revisions and possibly hearing board appearances. An unofficial "time-motion" analysis (see section 2.1.5) revealed that the top three time-intensive activities for an engineer to process conventional (non-facility type) equipment permits are: (1) rules analysis (BACT, toxics, offsets, conditions), (2) information requests, and (3) emission calculations.

Problems Identified – The more significant problems identified relating to this area of concern were:

1. Equipment that could be registered, instead require complete application packages.

2. Pre-screening and application retrieval is completed manually. Several agencies receive applications electronically. Electronic applications can be pre-screened for completeness automatically by computer. E-mail or letters can be electronically submitted that note approval or rejection automatically.

3. On-line, computerized application tracking does not start immediately upon application submittal to the AQMD. There is no centralized tracking for associated documents (source tests, health risk assessments, plans, etc.).

4. The prescreening process is a source of delay in getting the application to an engineer and in the quality of application accepted. Associated problems are: (1) frequent rotation of prescreening engineers, (2) redundant data entry, (3) 92% acceptance of applications, (4) lack of consistent rejection policy, and (5) problem applications that delay the prescreening process. Processing engineers actually repeat the prescreening process to become familiar with the application.

5. Contacting the applicant and documenting conversations is iterative and very time consuming.

6. New versions of Rule 212, Rule 219 and Rule 1401 require permits for equipment that fail Tier I Risk Assessment procedures. This captures many new units with low emissions.

7. Details of the CPP program are not established. For example, there is no definition of what constitutes a strike against a CPP.

8. Engineers do not always prioritize application processing according to long lead time tasks .

9. Engineers spend a significant amount of time with computer support systems (downloading, uploading, retrieving historical data, entering data, etc.) that could be better spent processing applications. Accessing and correcting database information is also a slow process. There is a lack of up-to-date software documentation. With the current computer system (CAPPS), it is difficult to modify permit conditions (no editing or QA/QC function) and there is little flexibility in other respects. There is no central electronic archiving of permit applications. All permit wording and conditions must be retyped for new applications. For example, permit wording and conditions must be retyped completely even for modifications or change of permit conditions. Almost every application is developed from scratch, even common applications. When applicants estimate emissions they must anticipate the AQMD's polices and interpretation of the rules. It is difficult to retrieve and manipulate historical data for permitted equipment . Historical information is

stored electronically in the Liberty system. The number of access points is limited because of the network. The current hardware is limited and slow.

10. Rule 301 categories and BCAT/CCAT categories are not the same. Applicants have complained that fees are reassessed by the permit engineer with BCAT/CCAT categories that are unavailable to the public and that sometimes contradict Rule 301 categories. Multiple BCAT/CCAT categories can be chosen, having different fee values.

Recommendations – Applications for frequently permitted equipment that has been evaluated many times by the AQMD may be processed differently by using a simplified alternative procedure. For these types of applications, the AQMD should use its experience and clearly define the criteria under which the equipment may be permitted without extensive evaluation. This concept of the Standard Permit has been proposed by the AQMD staff and approved by the Permit Streamlining Task Force. The Standard Permit concept should be expanded to cover as many equipment categories as possible. By processing a significant number of applications through simplified alternative routing, the regular process workload can also be reduced. A system must be instituted to continuously update and maintain the program to retain program effectiveness. Other recommended solutions are:

1. Standardization – As mentioned above, the concept of Standard Permits should be expanded. Standardization for the permit process as a whole should be encouraged to reduce QA/QC load (supervisors), provide greater certainty regarding toxics permitting, provide more efficient assignment of conditions and greater control over condition modifications.

2. Electronic Application Submittal – To enhance permit standardization, require applications to be submitted electronically and move to electronic submittal of all application documents in the long term. The AQMD should accelerate WARP II implementation and expand its charter.

3. Application Handling – Applications should be assigned a tracking number immediately. All material accompanying an application (e.g., check, MSDS, source test, HRA, compliance plan) should also be tagged with a tracking number. Bar coding is being evaluated as a tool to assist in tracking applications. Upon tracking number assignment, application checks should be separated immediately from the package and forwarded to finance for processing. Engineers need an electronic system to track source tests, Health Risk Assessments (HRAs) and equipment (i.e., unique equipment number solution). A unique number should be assigned to each piece of equipment to track historical data. Generate aging reports on all applications.

4. Prescreening – Require engineers to evaluate applications for completeness at their desks. Engineers should be provided a rigorous criteria/checklist for accepting and rejecting applications. The tracking system should require this step to be performed

within a given timeframe (we recommend one week). A process should be installed to avoid confusion between applications accepted for processing and those still under evaluation or have full-time pre-screeners (giving an incentive to become a full-time pre-screener). A lower ranked alternative would be to enhance the prescreening position by making it more permanent and accountable. It is highly recommended that engineers not be rotated in and out of prescreening as is currently the practice.

5. Reject Incomplete Applications – Establish a clear and simple policy to reject incomplete applications (with explanations). The applicant is not being done a favor by accepting an incomplete application and in some cases AQMD's air quality mandate suffers (e.g., applications for existing equipment operating without a permit). In addition, half of the application fee should be retained to encourage submittal of complete applications. By rejecting applications, the AQMD must also track rejections to ensure resubmittal of complete applications.

6. Rules – The latest amendment to R1401 demonstrates the need to again modify R219 and R1401 (i.e., allow Tier III or Tier IV evaluations for exemptions, exempt natural gas-fired equipment from evaluation). Enhance the current R1401 manual with respect to permitting implications. Amend R219 by adding emission limit exemptions. In general, it is highly recommended that proposed rules be evaluated for impact on the permitting process and that this impact be a primary consideration for the final form of the amended rule. It is recommended that a rule be adopted to regulate a specific equipment category (e.g., gas stations) and then require registration instead of a permit. This type of process has been initiated with R222.

7. CPP Reform – A package of solutions was proposed related to reforming the CPP program. This included providing better access and support to CPPs but also required more accountability for CPP applications submitted to AQMD. The CPP task force compiled these solutions. An alternative that ranked nearly as well as CPP reform was keeping the CPP program as is. Provide CPPs consultation space at AQMD (we recommend for a fee).

8. Permit Processing – Engineers should evaluate applications for BACT, offset, toxics, source test and public notification issues immediately to get the applicant working on long lead time problems up front rather than thirty days or more into the process. Processing bottlenecks need to be identified, measured and eliminated to the extent possible (see Management recommendations #4). AQMD should allow either full or limited Internet access to permit engineers—monitor activities if necessary.

9. Support Systems – The permit support systems should allow better transfer of electronic data from the data entry stage to application processing. In addition, the NSR module should allow transfer of old information to new applications for administrative changes. Fee sheets should be kept current in the data base (changed July of each year). Liberty should be transferred to the Intranet to allow unlimited access points.

10. Fees - Rule 301 and BCAT/CCAT fee tables need to be consolidated. Applicants should not be penalized because the BCAT/CCAT fees are higher than Rule 301. Any fees in Rule 301 should over rule the BCAT/CCAT fees because the public only has access to Rule 301 fee tables.

CONCERN #2 – Communications. Poor communication of AQMD policies and procedures to permit applicants leads to incomplete and inaccurate applications, incorrect fees, and disgruntled, confused applicants. Ultimately, air quality suffers from this confusion. Poor communication of internal policies to permitting engineers leads to increased processing time as engineers debate informal policy interpretation. It also leads to inconsistent permitting policy on the front line. Poor data retrievability and inability to manipulate information vital to the permit processing engineer (e.g., past permit data, source test information, data reentry, etc.) greatly increase the application processing time.

Problems Identified – The more significant problems identified related to this area of concern were:

1. Applicable policies and procedures for processing applications are typically communicated via memorandum between permitting teams. Memorandum are loosely held within groups. There is no central source for a permitting engineer to locate all past and present policies. Instead, they often rely on peers or their supervisor to understand and interpret policies. Also, there is lack of communication between permitting groups. Similar equipment is treated differently by different teams.

2. Generic guidance is not available to applicants. Common emission factors, emission estimate methods, policies, conditions, and rule interpretations are not available to applicants. Applicants cannot determine whether offsets, BACT or health risk assessments are needed if emission estimates cannot be completed. Current BACT and RACT are not conveyed to applicants.

3. The staff at the Permit Counter are rotated and policies are inconsistent. Applicants may get different answers depending on the counter staff. These answers may not be honored by the permit engineer.

4. AQMD's policies are primarily conveyed to the regulated community through published rules and guidance documents. There is no current, effective way for communication of specific information related to a permit applicant. For example, potential-to-emit is critical information for a permit applicant, since it determines whether emission offsets will be required; however, this information is difficult to obtain. Public requests require weeks or months to process.

5. There are many versions of the AQMD forms in public circulation. The forms change without input from all of SSC or related units/divisions. For example, IM is

not notified of changes to the forms, but IM develops input interfaces based on the forms to make it easier to input information. If fields are rearranged, added or removed, data entry personnel complain and information is either lost, missing or not obtained.

6. There seems to be a lack of communication between the permitting teams and other groups (source test, planning, etc.). Source test reports are difficult for an engineer to track. IM explained that representatives from permitting groups are changed too often, resulting in policy inconsistency and software development interruption. Software is designed without end-user input, and is based on forms that are frequently modified without involving or notifying IM. SSC does not always know how other units/divisions function or their policies. Policies in the support/ancillary units are not made available.

7. Finance and SSC need to coordinate better. When a permit is temporarily inactivated for late payment, the system does not automatically revise facility permits without the engineer's knowledge. Applicant fees can be changed by either group.

Recommendations — Many highly rated solutions were linked to the need for better communications (e.g., greater use of Web), worksheets for applicants, permitting manual, BACT manual, staff training, pre-application meetings, a group designated to meet applicants "meeters," Automated Computer Expert System [ACES], fees hotline). Much of what the AQMD requests and does is a mystery to the permit applicants.

Recommended solutions are:

1. Expanded Use of the AQMD Web Page – Policies and permit evaluation protocols should be posted on the AQMD web page. This would be especially useful for applicants and AQMD engineers in understanding the most current policies and methods to demonstrate compliance. Other material posted should include equipment-specific application instructions, emission factors, standard permit conditions, permitting procedures and permitting guidelines. AQMD should post a list of certified equipment and manufacturers for over-the-counter permits on the web page and also provide permit services with this list.

2. Applicant Assistance – A permitting fee worksheet should be prepared and a Rule 301 hotline instituted to enhance communications regarding permit fee issues. Public outreach also needs to be expanded. The AQMD should improve coordination with economic development corporations, industry groups and small businesses to explain the permitting process. A group separate from compliance inspectors should be available to answer sensitive anonymous questions. A further responsibility of this group would be to perform compliance audits (we recommend for a fee) that would not report violations (allow the company to report them). Customer feedback needs to be increased. AQMD should develop a process to

post customer feedback (internal and external) on the AQMD web page. Create a forum for resolving problems and inconsistencies between units and with applicants.

3. Pre-Application Conferences – The AQMD should have an experienced team of permit engineers ("meeters and greeters") who can meet with permit applicants well in advance of application submittal. Team members would discuss the proposed project and identify all regulatory requirements. They would have the knowledge and authority to tell the prospective applicant what conditions must be met, what information must be submitted, and what the correct fees are for the application to be successful. An AQMD engineer's performance on this team would be measured by the information given to an applicant. It is recommended that information be provided to the applicant within 24 hours and that it be accurate. If either of these two conditions are not met (within limits), the applicant's permit fee would be refunded.

4. Guidance Documents – The AQMD should update and release the permit processing handbook (originally from 1989) and update the BACT guidelines for release. These documents should be made available to permit engineers and applicants. Along those lines, internal forms, policies and guidelines used by AQMD engineers should be made available to CPPs. The AQMD should develop and publish a generic permit evaluation guideline with a standard evaluation template. To expand the use of Standard Permits, the AQMD should develop equipment-specific application packages for as many types of frequently permitted equipment as practicable. It would also be helpful to develop pamphlets and computer tutorials —a Rule 1401 template for different equipment types would be especially useful.

5. Forms – One person or team should be in charge of forms and changes to forms. A process to review and approve proposed modifications to forms needs to be in place. Form 400-EXs must clearly state which equipment automatically requires a source test, BACT, or risk assessment. Form 400A should be simplified by removing the Title V information from the reverse side, the Form 400 EX information from the front side and making it clear (e.g., color coding) what information is mandatory. Examples of correctly completed forms would be helpful for both AQMD engineers and applicants.

6. Training – AQMD should develop training programs across permitting, source testing, planning and other sections to promote better communication between groups. In particular, IM should provide extensive training programs and training documentation for existing (especially CAPPS) as well as planned future programs. AQMD should provide incentives for AQMD staff and applicants to improve permitting policy consistency. More intensive rules training should be provided to engineers (e.g., Rules Interpretation Group).

7. Finance and Permit Processing – Finance and SSC should coordinate activities so that when a permit is temporarily inactivated for late payment, the system does not automatically revise facility permits without the engineer's knowledge. In addition,

Finance and SSC need to closely coordinate application payments (e.g., correct amount, fines, penalties, etc.).

CONCERN #3 – <u>Permit Structure and Facility Permits</u>. Until recently, AQMD permitting comprised single permits for equipment called the permit unit. The RECLAIM and Title V programs brought about the concept of the facility permit. The Title V program, especially, has required tremendous resource shifts within AQMD engineering to process these complex permits. The result has significantly impacted the time and resources available to process traditional permits. Small-scale efforts to outsource has not substantially improved the situation.

During the evolution of RECLAIM, equipment was further broken out according to "device" and previous permit conditions were rearranged and rewritten in a standard set of conditions. This philosophy was carried over to Title V and resulted in an increase in the amount of work required to incorporate existing permits into facility permits. While individual device listing may have its merit for the VOC RECLAIM program (had it been implemented) because of source diversity, it is not necessary for the NO_x/SO_x RECLAIM program or for Title V.

Another source of excessive engineering effort is caused by the complexity of the software used to process facility permits called the Facility Permit (FP) program and the soon-to-be-released Facility Permit Processing System (FPPS). These programs are designed to query a large number of parameters using a database format. The permit conditions module is especially complex. The question becomes one of information cost versus usefulness. It was reported that engineers sometimes spend more time working on the facility permit program than doing emission calculations and permit evaluations.

Any system for handling Title V permits must have a mechanism for version tracking. The initial Title V permit and any changes to it must be approved by the EPA. Most large facilities modify their permits frequently, and often in a staggered time scale. In addition, some modifications are easier (i.e. faster) to review and approve. These issues may cause several versions of a Title V document to be circulating between the facility, AQMD and EPA. Portions of these modifications may be approved or rejected by a facility, the AQMD and the EPA. Version tracking is important for ensuring changes can be made in an orderly and correct manner.

A further complication is the dual permit system: facility-based and equipment-based systems. Equipment-based permit processing is used to feed facility permit modifications.

Problems Identified – The more significant problems identified relating to this area of concern were:

1. The AQMD has invested tremendous effort to develop the facility permit program. This is a serious resource draw. The result has significantly impacted the time and

resources available to process traditional permits. The Facility Permit Processing System (FPPS) is too complex to use, especially for small sources (e.g., Title V Groups B and C facilities). Some staff engineers believe that the Small Source Permit System (SSPS), which is being developed to handle equipment permits, may be able to do a better job with some modifications.

Application wording and conditions are completed twice. All applications are completed within the CAPPS/NSR modules in CLASS as equipment-based permits. If an application is for a Title V facility, then engineers re-enter the wording and conditions into the Title V module.

AQMD policies shuffle between facility-based and equipment-based permitting process emphasis. Software is developed based on one or the other orientation. Switching between the two orientations causes problems integrating software, budget requirements, and permit process activities.

2. The Title V module does not store older versions electronically. All modifications over-write original entry. This is a potential problem for version tracking.

3. Rules and MRR must be added to devices. Reference to rules must also be assigned to conditions. Currently, this is done manually by engineers for each device. These connections are not retained, and therefore must be redone for each device.

4. Conditions are standardized with little or no flexibility. Engineers choose conditions from an existing list of standard conditions. New conditions must be submitted to data entry to be entered into the database so that the engineer can choose it.

5. The Title V permits are reviewed by one manager who is familiar with EPA standards. This could be a potential bottleneck.

6. Title V permits can only be printed in whole, which wastes paper and time.

7. Currently, Title V and RECLAIM permit formats are too difficult and cumbersome for the regulated facility to follow. Descriptions, conditions, MRR and connected devices are not placed together. The facility engineer must flip between sections and pages within each section to know what is required for any given device.

Recommendations – Recently (November 1998), the AQMD permit streamlining team submitted a proposal to reduce the effort and time to process Title V applications for Group B and C facilities. The proposed solution was to staple existing equipment-based permits together and add EPA requirements such as monitoring, record keeping, and reporting (MRR) conditions. The Permit Streamlining Task Force approved the proposal and recommended immediate implementation.

Along those same lines, we recommend that permit database information requirements be reviewed and simplified, where possible. This is especially important for equipment description and permit conditions. It should be easy for an engineer to capture old data and not have to reenter data into inflexible formats. Other solutions are:

1. Consolidated Permit Processing – The AQMD should develop a simplified and consolidated permit program for both Title V and non-Title V sources versus two separate systems. It should not be standard for permit wording and conditions to be re-entered for each new application for Title V facilities. The consolidated program database should be based on the equipment-based system to minimize permitting costs and the need for resources.

2. Electronic Data Capture for Version Tracking — Electronic capture of the wording and conditions of the old equipment-based permits to assist engineers during negotiations with EPA and have historical information available when equipment is modified. Capture of such information will help with version tracking. An important part of electronic data capture is version tracking. A means of version tracking must be developed before implementing the staple method for Group B and C facilities.

3. MRR and Rules – Add the MRR and reference to rules to the captured wording and conditions when necessary.

4. Standardized Conditions – Establish a method for maintaining some standardized conditions, while allowing engineers the needed flexibility to make or obtain novel conditions quickly.

5. Title V Training – Engineers need more familiarity (cross training or continuing education) to become familiar with Title V, other new or amended regulatory requirements, and permitting policies and procedures.

6. Permit Processing – Allow engineers to print facility permits in parts, rather than printing the entire permit.

7. Inspector's View – Provide facilities with the "inspector's view" of the facility permit. This view provides data in a more organized, concise manner, instead of flipping back and forth between sections.

CONCERN #4 – Management and Organizational Issues. While permitting is one of the AQMD's primary functions, there is no one person in charge of the process. In addition, the efforts of those who manage the process are diluted by many other responsibilities. As a result, permitting is seriously impacted by policies and procedures established by various individuals or groups that may or may not be involved in permitting at all. Therefore, there is a need to have a group focused on permitting all the way through the management levels and to ensure all permitting related issues (i.e., NSR, toxics, CEQA, Title V, etc.) are coordinated through this focused group.

Another major issue is: What systems are in place to manage and prioritize the process, analyze performance measurements and thus assure continuous improvement? AQMD measures many internal and external performance parameters. However, even if the correct parameters are measured, if processes and procedures are not in place as an integral part of the system to effectively use the measurements to track, manage and prioritize permitting, the effort to obtain the measurements is wasted.

One example of a measurement parameter that could be enhanced to better assist management of permitting activities is to improve reporting and tracking of time spent on permitting—and the Fee Study Group concurs. Currently, there are only a few charge numbers, and most entries are made at the end of each two-week period.

Another example that needs to be examined regularly is the way AQMD prioritizes its applications. The current 7/30/180-day prioritization practice may not have served the best interest of the AQMD nor the regulated community because of unrealistic expectations as well as recent changes in state law.

Problems Identified – The more significant problems identified relating to this area of concern were:

1. There is no system in place at the AQMD for promoting continuous improvement.

2. Permitting related activities are managed by many different people and the groups under their supervision conduct many other activities besides permitting (e.g., rule making, compliance, etc.). The decision-making mechanism is uncertain and slow. There is no clear mechanism for requesting and documenting polices, or for distributing and archiving the policies.

3. Policies are not always consistent between departments. No forum exists for units/divisions to interact, resolve and publicize permitting policy issues (such as BACT, emission estimation methods, permit exemptions, fees, CEQA, risk assessment, etc.).

4. There is no detailed information on time expended by engineers, technicians, clerks, and supervisors for various tasks and there is no system for measuring staff performance. Therefore, there is no effective system for evaluating the permitting engineer's performance or identifying bottlenecks in the permitting process.

   There is currently insufficient staff to maintain a consistently small backlog. Engineers have been transferred from standard equipment-based permitting to Title V. The standard equipment-based permit backlog is not decreasing.

5. Prioritization must be revised to meet the new 120-day limit established by State regulations. The 7/30/180-day prioritization schedule should also be re-examined to provide realistic expectations.

6. Staff is not familiar with other units/divisions and the tasks completed by them. Engineers are also very specialized, some have no experience with the permitting equipment assigned to them.

7. Managers, supervisors and engineers are not business oriented. While the AQMD is a government agency, common business and project viewpoints are needed to ensure applications are completed in a reasonable amount of time with available resources. Currently, managers, supervisors and engineers neither track important indicators, nor do they evaluate work against resources and time. Business plans are not produced for projecting and evaluating efficiency and cost reduction. Mechanisms to reward and discipline employees are not well defined or enforced.

8. Managers, supervisors and engineers are not project oriented. Applications are transferred from department to department and assigned to staff and managers within each of the departments. There is not one person who is charge of ensuring that an application completes the entire process. Not all departments keep aging reports.

9. Employee reviews are not performed consistently. Reviews are not based on assisting employees develop and obtain career goals.

Recommendations — The AQMD Governing Board and top AQMD management should provide the driving force and unwavering support to implement a management system modeled after ISO9000 or other management system. The goal would be to establish procedures and policies to manage the permitting process and thereby measure and improve system performance. This is critical for effective management of the permitting process in terms of its ability to efficiently process and evaluate applications in a consistent, thorough and timely manner. As with the ISO standards, the management system should have the ability to audit itself and promote continuous improvement. To avoid distraction, the individual groups working on permitting should also be focused on the permitting function from management through staff. Other management-related recommendations are:

1. Quality Management System – As discussed above, the AQMD should design and implement an environmental management system that promotes continuous improvement.

2. Management Responsibility for Permitting — Since permitting is one of AQMD's primary functions, one person should be made responsible for permitting with executive decision-making authority, and this should be his/her primary responsibility. To avoid distraction, the individual groups working on permitting should also be focused on the permitting function from management through staff. In general, the individual responsible for permitting should also be involved in policy decisions that impact permitting. This would improve the efficiency in decision-making, responsiveness of the organization, and consistency in permitting policies

and procedures. The decision-making mechanism needs improvement by detailing (1) who can make policies, (2) the scope of policies that can be made, (3) documentation of policies, and (4) the time lapse between an inquiry and its reply**.**

3. Resolving Permit Issues — A committee (Permit Advisory Committee) is needed specifically to resolve permitting issues raised by staff and applicants (e.g., BACT, emission estimation methods, fees, permit exemptions, CEQA, risk assessment, etc.) A forum should compare and unify policies between units. This committee should include a representative from IM to ensure (1) polices and decisions are consistent with software and (2) IM is aware of the needs of SSC.

4. Measuring Key Parameters and Monitoring the Permit Process — In the process of implementing a management system, programs should be established to measure key parameters. This would include tracking of permitting time and activities in more detail than currently practiced (e.g., engineers logging their activities daily by application number).

   The AQMD should conduct time/motion studies of engineers, data entry staff, supervisors, and others involved with permitting to measure key parameters and identify bottlenecks (as outlined in Concern #1). The initial time/motion study should provide a baseline for measuring the effectiveness of permit streamlining programs. Additional studies should be completed to verify progress and new bottlenecks as processes change. The time/motion studies need to be long enough and broad enough (all SSC units, plus important support services and other units such as source testing and planning) to capture the complete permitting process for a variety of equipment. Information should follow individual applications through the entire process and should also follow individual actions such as information requests, telephone conversations, applicant meetings, internal policy meetings, etc. Time/motion studies should be completed before the next streamlining and fee study teams are formed, so information would be available to these study teams.

   Time/motion studies will provide AQMD the ability to determine the level of staffing required for standard permitting, so that needed staff will not be transferred to special projects (initial Title V review) without understanding the consequences to backlog and prioritization deadlines.

5. 7/30/180-Day Schedule Reevaluation – The AQMD should reevaluate and revise the current 7/30/180-day prioritization practice to meet the regulatory mandates (120-day prioritization), improve efficient use of AQMD's resources and provide better service to applicants. Adding an intermediate time such as 60 days may prove beneficial.

6. Technical and Management Training – Technical expertise and its breadth needs to be developed by assigning/promoting staff to units consistent with their training/experience, as well as increasing field training/evaluations and allowing a reasonable amount of participation in relevant technical seminars. Cross

training/assignments should be done on a voluntary or as-needed basis. It may be advantageous to assign specialized staff to various source categories or as consultants between units/divisions.

7. Customer Service and Business Awareness – Overall business awareness needs to be increased and developed. All organizations must incorporate sound business strategies to operate efficiently and provide superior customer service. Managers should submit business plans with efficiency and cost reduction for their divisions/units. Managers should have proven business skills. Rewards and discipline should be practiced to encourage appropriate behavior and discourage inappropriate behavior. Audits must be in place to reinforce and evaluate business practices. Aging reports are essential for ensuring that applications are not misplaced or held unnecessarily.

8. Project Orientation – The permit processing system should be project oriented. Applications should be assigned immediately to an engineer. The assigned engineer should track the applications through the entire process and take responsibility for ensuring their applications are completed within prioritized time limits.

9. Management By Objectives (MBOs) – The AQMD should institute the MBO or another system for individual performance reviews. With this system, employees set goals and growth plans with their supervisors at the beginning of the year. Supervisors then assist employees with goal setting, and obtaining goals throughout the year.

10. Implementing Permit Streamlining Solutions – One person should be responsible for both ensuring that streamlining ideas are implemented and streamlining studies are organized and completed.

A Brief Summary of Management Systems and Their Applicability to AQMD

Total Quality Management

Total quality management (TQM) is a generic name applied to a philosophy of business management that is based on increasing quality through continuous improvement. Quality is defined as that which meets customer's or client's requirements. Continuous improvement is intrinsic because client's needs and the business environment change as technology and service improves.

Standards and audits are needed to make TQM viable and promote the change required for continuous improvement. One system that provides both standards and audits is ISO.

ISO

ISO is derived from the Greek word “isos” which means equal. It is the name adopted for the International Organization for Standardization, an international nongovernment agency established in 1947 comprising the National Groups of Standards in 91 countries. The American National Standards Institute represents the United States in the National Groups of Standards. ISO standards are management systems that were designed to improve and standardize international commerce and cooperation in intellectual, scientific, technological and economic activity. ISO standards are technical agreements published in Geneva by the ISO Central Secretariat as the International Standards. Of the over 11,000 standards, the two most well-known series are 9000 (quality system standards) and 14000 (environmental standards).

International standards are not enforced by ISO, but by clients, suppliers or regulatory bodies who have accepted International standards into legislation. Independent third-party testing laboratories and auditors perform conformity assessments to verify that products, services or systems meet the international standards. Certification of companies is also completed by independent certification bodies.

ISO 9000

ISO 9000 are international standards that govern good management practices. The goal of the standards is to develop an effective quality management system that promotes continuous improvement. The standards have three quality assurance models (ISO 9001 , 9002 and 9003) against which facilities can be measured. In addition to self auditing, clients can be invited to audit their facility. The independent third-party audit can be completed to obtain certification with the added benefit of avoiding multiple audits by clients.

ISO 9000 standards can be divided as follows:

1. ISO 9001 provides guidance for areas of design and development, production, installation and servicing of products or services.

1. ISO 9002 applies to quality management in areas of production and installation.

1. ISO 9003 provides guidance on quality assurance obligations of the supplier in the areas of final inspection and testing.

Management System Applicability to AQMD

The common thread throughout these management systems is the commitment to continuous improvement. Continuous improvement can only be realized by implementing processes and procedures that measure system performance and have the flexibility to make changes to achieve organizational goals and targets. It is also

important to audit system performance so that these important processes and procedures do not wither and to provide quality assurance.

Quality assurance is defined by “customer” requirements. The AQMD’s customers include people living in the South Coast Air Basin and Coachella Valley, EPA, CARB, applicants, and employees. EPA and CARB requirements change with legislation and regulation. Applicant requirements change as their industries change, technology changes and their supplier and consumer needs change. The needs of people breathing air under the jurisdiction of AQMD change as more industry or population growth occurs or industry types change. Employees’ needs change as industry changes, data management tools are developed, and the population becomes more diversified. These examples clearly show that “customer” requirements are in constant flux and are very diverse.

The AQMD could choose any of the mentioned management systems as a template, or customize a system by picking and choosing the most relevant features from several—there is no immediate need for AQMD to become certified to a particular system. However, the most important elements for any management system are standardization and availability of management polices and practices to all personnel. These management polices and practices must have goals (targets and objectives) that are set with specific benchmarks and dates.

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FINAL

PERMIT STREAMLINING REPORT FOR SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

APPENDICES

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February 1999

Appendix A

AQMD Staff Interviews

Appendix B

APPLICANT INTERVIEWS

Appendix C

SOLUTION RATINGS BY CATEGORY

Solutions with Criteria Averaged Rating

Solutions Sorted by Category and Score

Solutions Sorted by Score

Appendix D

APPLICANT AND AQMD STAFF BRAINSTORMING SESSIONS

(To be Provided in Final Report)