



“Lean Office” Audit Results

NC DAQ Title V Permit Section

CAPCA Conference, Spring 2008

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Outline

- What is LEAN Office?
- Why Did WE Get Audited?
- Audit Findings
- What Changes Will Be Made?



What is Lean Office?

A collection of principles and methods that focus on the **identification and elimination of non-value added activity (waste)** involved in producing a product or delivering a service to customers, including:

- Value Stream Mapping
- “Kaizen” Bursts
- Six Sigma



How Does Lean Office Work?

- **Value Stream Mapping:** Developing a visual representation of a process to **improve understanding** of the process and **identify sources of non-value added time**.
- **Kaizen Bursts:** Combination of two Japanese words meaning “**to take apart**” and “**to make good**”. Target wasteful portions of the process, “**ATTACK**”, and remedy.



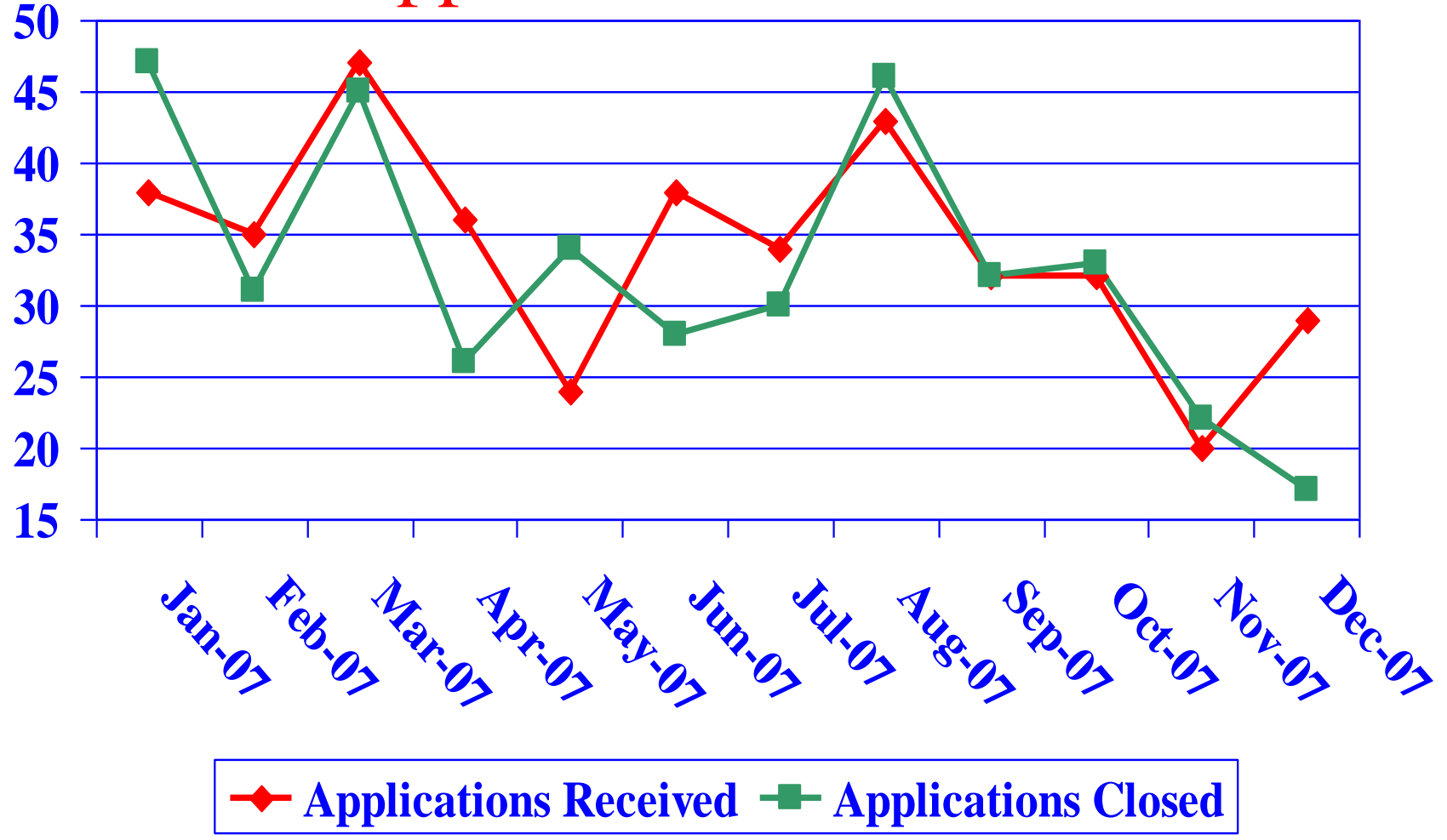
Why Audit the Permits Section?

- Outreach by the State Auditor's Office
 - History of Success in Delaware, Iowa, Michigan, and various Federal agencies.
 - First “Lean Office” audit of a NC agency, in cooperation with the NCSU IES.
- Keith Overcash Volunteers Permits Section
- Improve Efficiency to *REDUCE BACKLOG*



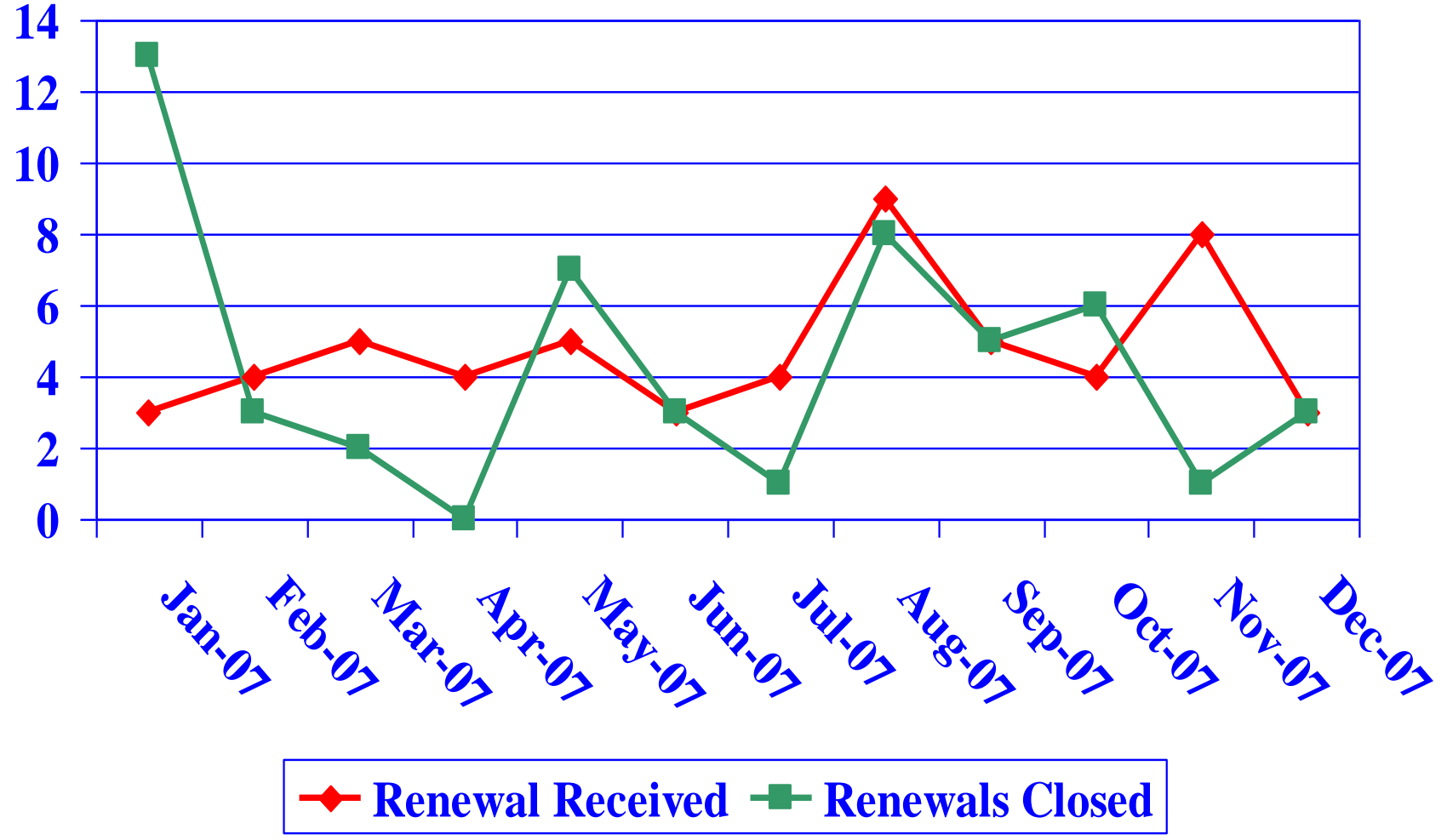
2007 Permit Statistics:

Total Applications Received/Issued





2007 Permit Statistics: Total Renewals Received/Issued





Current Backlog

- Current Total Backlog: 241 Applications
 - In 2007, Total Backlog decreased by 26 applications
- Current Renewal Backlog: 105 Renewals
 - In 2007, Renewal Backlog increased by 5
- FTE Permit Engineers: 14
 - Each FTE Engineer has ~17.2 applications



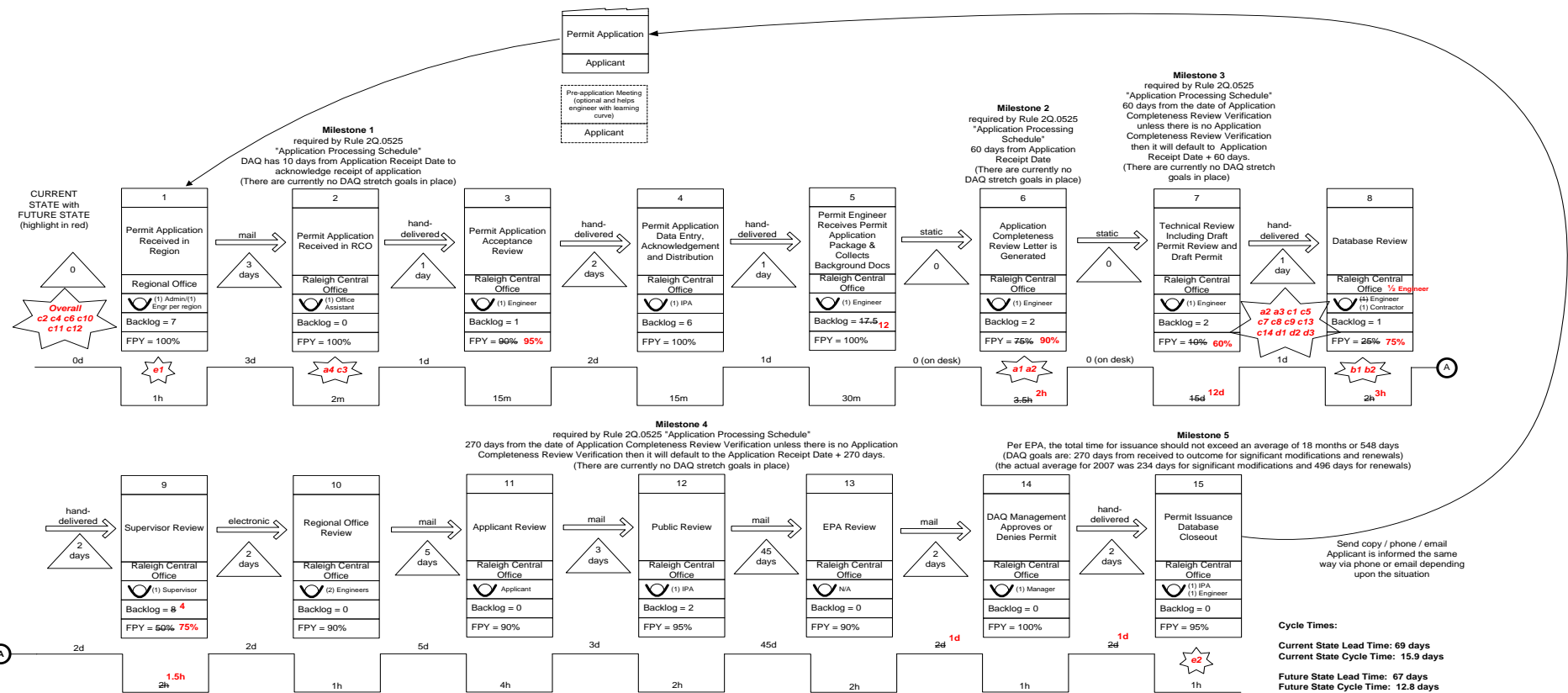
Audit Results





Value Stream Map

Value Stream Map
Title V Permit Process
Current Jan 2007 & Future Jan 2009





Current State: Turnaround of Significant Modifications

	Total Cycle Time	“Value-Added” Time	% of Applications
No Add-Info Required	84.9 Days	15.9 Days	10%
Add-Info Required	421.4 Days	17.4 Days	90%

Most Common Add-Info Requests:

- NSPS, MACT Applicability Not Addressed
- CAM Applicability Not Addressed
- NSR Applicability Not Addressed (Esp. Debottlenecking)
- TAP Applicability Not Addressed
- Inadequate Documentation of Emissions Calculations



Kaizen Bursts

	Total Cycle Time	“Value-Added” Time	% of Applications
No Add-Info Required	84.9 Days	15.9 Days	10%
Add-Info Required	41.4 Days	17.4 Days	10%



Increase Application “First Pass Rate”



Reduce Added Time Resulting from Add-Info Requests



Action Items



Increase Application “First Pass Rate”

- Revise Renewal Application to Include a REQUIRED “CAM Applicability” Form
- Provide an OPTIONAL “Permit Application Checklist”



Reduce Added Time Resulting From Add-Info Requests

- Permit Application “Triage”
- Send Applications Back When Applicant Fails to Fulfill Add-Info Requests



Action Items



Increase Use of Electronic Communications

- E-mail additional information requests prior to “snail mailing”
- Scan and e-mail final permit prior to sending certified mail
- Info requests and permits will be e-mailed to RO, facility technical contact and consultant



Application “Triage”

- Each Application to Receive a Comprehensive Technical Completeness Review by the Supervisor & Engineer Within 2-3 Weeks of Receipt
 - Improve Supervisor Involvement in Problem Solving & Information Sharing
 - Reduce Applications with MULTIPLE Add-Info Requests
 - Provide Add-Info Request While Application is Still “Fresh” to the Applicant/Consultant
- Excellent Initial Feedback!!



FUTURE STATE

	Total Cycle Time	“Value-Added” Time	% of Applications
No Add-Info Required	79.8 Days <i>6% Improvement</i>	12.8 Days <i>19% Improvement</i>	40%
Add-Info Required	253.4 Days <i>40% Improvement</i>	13.4 Days <i>23% Improvement</i>	60%

Projections:

- Full Implementation by June 2008
- 52% Improvement in Overall Efficiency
- “Removal” of Current Backlog by late 2009



QUESTIONS?

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