Enodis Ice Group

Scotsman ICE O-Matic

775 Corporate Woods Parkway
Vernon Hills, IL 60061

October 29, 2004

DOCKET
04-AAER-1
DATE OCT 29 2004
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Docket No. 04-AAER-1
Docket Office
California Energy Commission
1516 Ninth Street, Mail Station 4
Sacramento, California 95814-5512

Subject: Docket No. 04-AAER-1

Dear Commissioner,

We are writing on behalf of the Enodis Ice Group (Scotsman and Ice-O-Matic) in response to the proposed energy consumption regulations for commercial ice makers. Attached to this letter is a presentation which summarizes the insights which we would like the CEC to consider.

We were present at the preliminary hearing and presented our concerns with definitions and adverse impact on 22 inch wide machines and Quiet machine categories. The letter and presentation were entered into the docket dated October 13, 2004.

At this time, we wish to present our concerns with adverse impact on machines that produce individual ice cubes and emphasize the importance of flakers/nugget machines in energy conservation. Ice-O-Matic "Waffle" cube machines can be re-engineered to meet the timing of the proposed standard, excluding 22 inch and Quiet Machines which will be done by 2008.

Scotsman "Individual" cube machines are much more difficult to re-engineer. As a result, we have embarked on an ambitious program to re-engineer the entire Scotsman line and have received a commitment from Enodis Board of Directors of $9 million in capital and expense to accomplish this goal. Our best planning efforts have resulted in a completion date of 11/10/07 (including 22 inch and Quiet machines). As a result, the proposed timing of the regulation, 01/01/07, will create significant adverse impact on Scotsman's business in three ways:

- Directly impacts 10% of our business which represents sales to California
- Indirectly impacts non-cuber business because distributors require complete product line
- Indirectly impacts chain business as they want common machine specification across country

In addition, as we identified in the preliminary hearing, the regulation does not call attention to flaker/nugget machines, which are inherently more efficient by design as an energy and water savings opportunity. Therefore we suggest additional language be written into the standard to highlight this opportunity. For example this language could be placed in italics under the proposed definition of commercial ice makers:

> *"This standard does not currently apply to flake or nugget type ice machines. These machines are inherently more efficient for producing ice, using 30 - 40 % less electricity and water than cube type machines. California encourages the substitution of flake or nugget machines for cubers in commercial applications."*

This educational comment could have a very significant impact on reducing energy in the state of California. For example, we estimate 40% of cuber machines could be replaced with flaker/nugget machines resulting in a reduction of approximately 1 million kwh/yr.

John Broadbent will continue to be our point of contact on this subject. We look forward to the continuing dialogue and look forward to working together to improve the proposed regulation to meet the broad intent of saving energy without creating adverse impact in the food service market.

Sincerely,

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Attachment: Proposed Regulations for Commercial Ice-Makers presented to CEC by Enodis at public hearing on November 3, 2004.

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Proposed Regulations for Commercial Ice-Makers

Scotsman

ICE O-Matic®

Presentation to:
California Energy Commission
Public Hearing
November 3, 2004

Docket No. 04-AAER-1

Introduction

Scotsman Ice Systems

Matt Allison, VP Engineering

- A leading U.S. manufacturer of ice making equipment
- Chicago, IL
- Subsidiary of Enodis

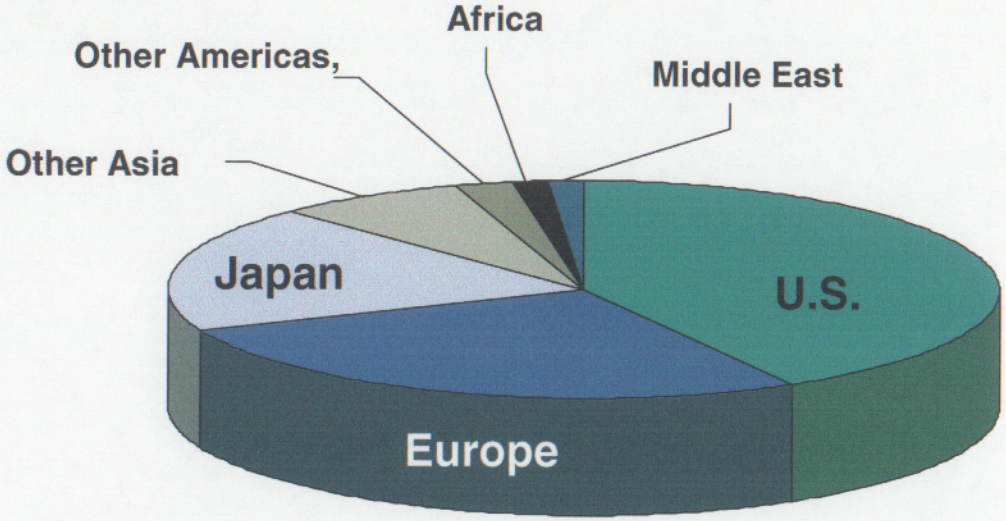
ICE-O-Matic

John Broadbent, VP Engineering

- A leading U.S. manufacturer of ice making equipment
- Denver, CO
- Subsidiary of Enodis

Enodis

The world's largest manufacturer of commercial foodservice equipment and the world's largest manufacturer of ice machines



Global Market

- 400,000 units

Enodis Market Share

U.S.	40%
Europe	35%
Japan	2%
Other Americas	34%
Global Share	31%

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1. Background

2. Insights on Categories

3. Summary & Recommendations

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Background

Increasing Energy Efficiency - Key Objective for Enodis

October 13, 2004

Preliminary Hearing - Presented our concerns with definitions and adverse impact on **22 inch wide machines and Quiet machines**

Today

Public Hearing - Present our concerns with adverse impact on machines that produce **individual ice cubes** & emphasize the importance of **flakers/nugget** machines in energy conservation

Summary of our Comments at Preliminary Hearing

At the preliminary hearing we recommend the following considerations:

MINOR CORRECTIONS AND CLARIFICATIONS

Correctly define "H"

Clarify definition of "water use"

Clarify definition of "commercial ice maker".

REDUCE ADVERSE IMPACT

- Provide a differing compliance requirement or exemption for:
  - 22 inch wide units
  - "Quiet" units
  - Water-cooled units
- Stipulate that the tested capacity must be within plus or minus 5% of the stated capacity

We are pleased that the CEC is considering these suggestions.

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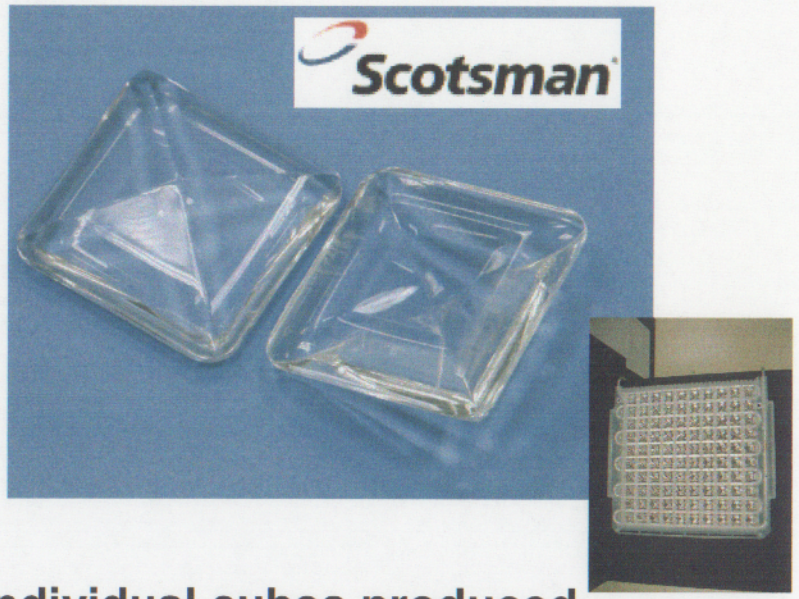
Ice Forms

Example of ice produced from each style evaporator



Individual cubes produced separately

"Waffle" style ice produced in slabs and broken apart by impact / manually

Ice Forms

"Waffle" style ice produced in slabs and broken apart by impact / manually – not consistent

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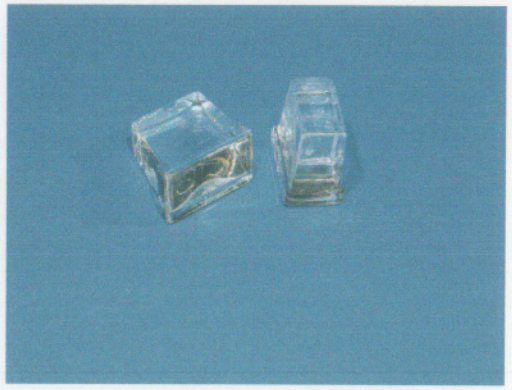

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Ice Forms

Individual cubes are preferred by 50% of the market by due to easier handling and dispensing

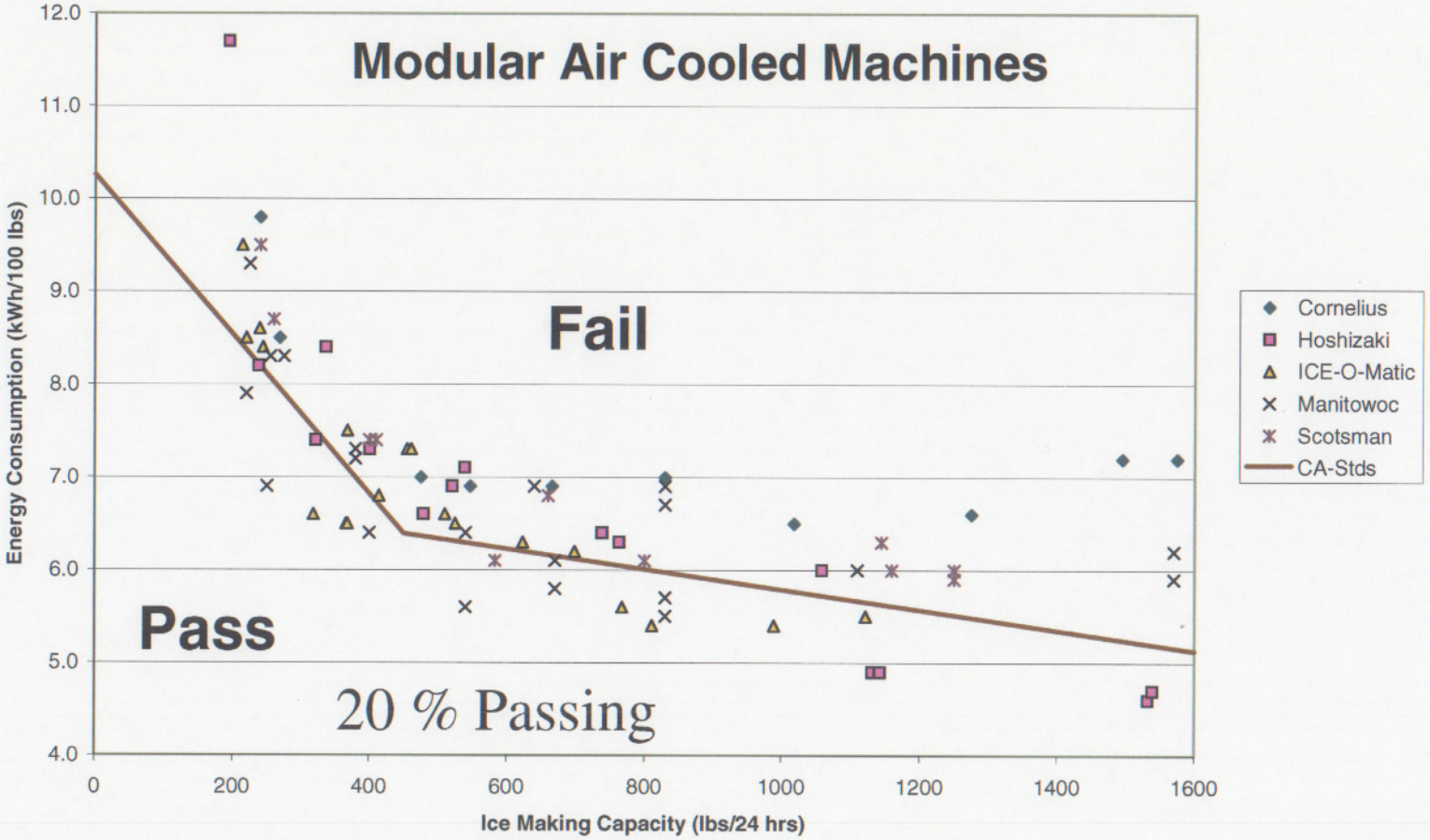
- Scotsman is a leading brand with individual ice

"Waffle" style cubes are preferred by 50% of the market due to ability to last longer in bin storage

- Ice-O-Matic is a leading brand with waffle ice

Category: Modular Air Cooled Machines

The proposed regulation did not consider cube form in setting efficiency levels



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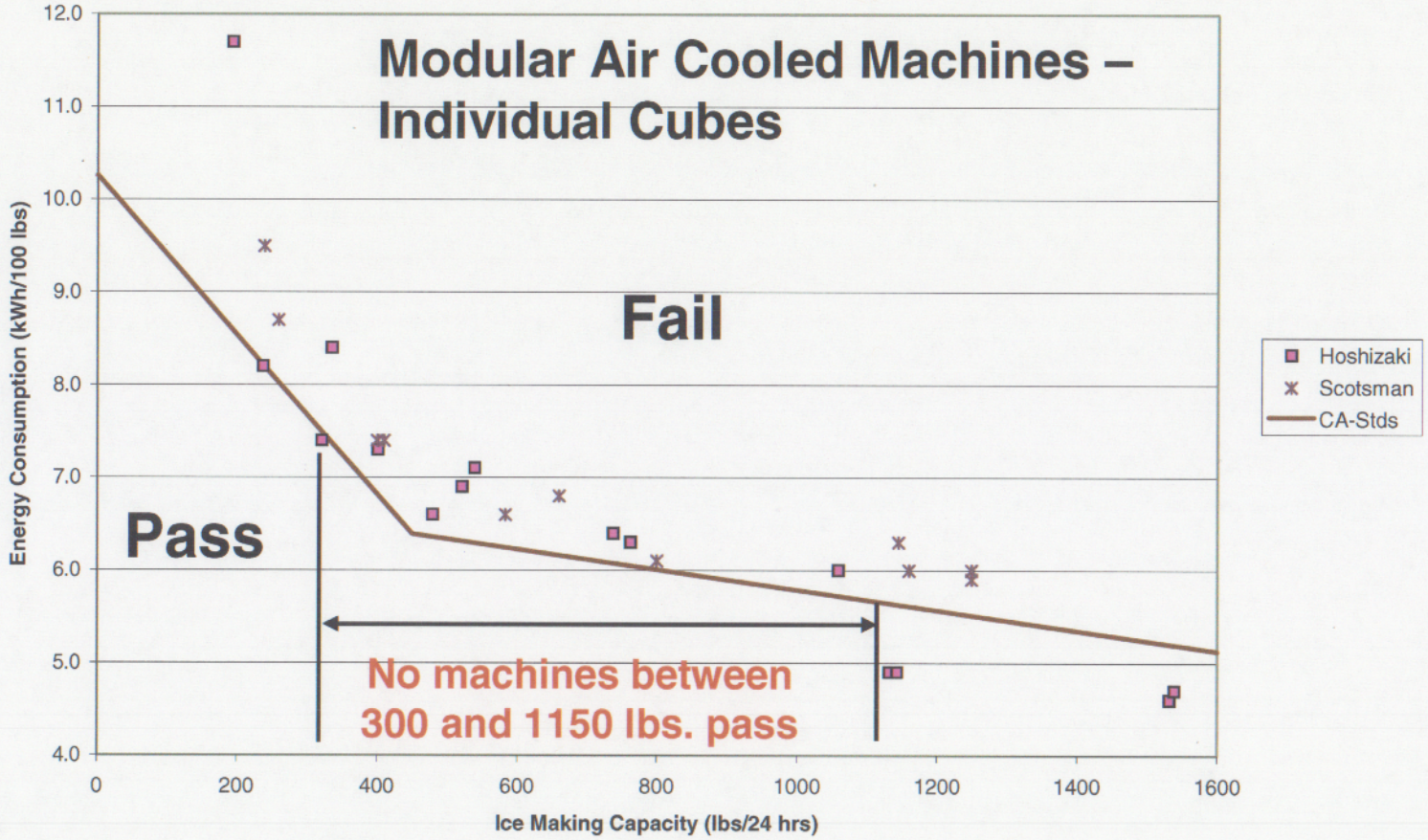
Category: Modular Air Cooled Machines

Individual Cube Machines are very negatively impacted by the proposed regulation



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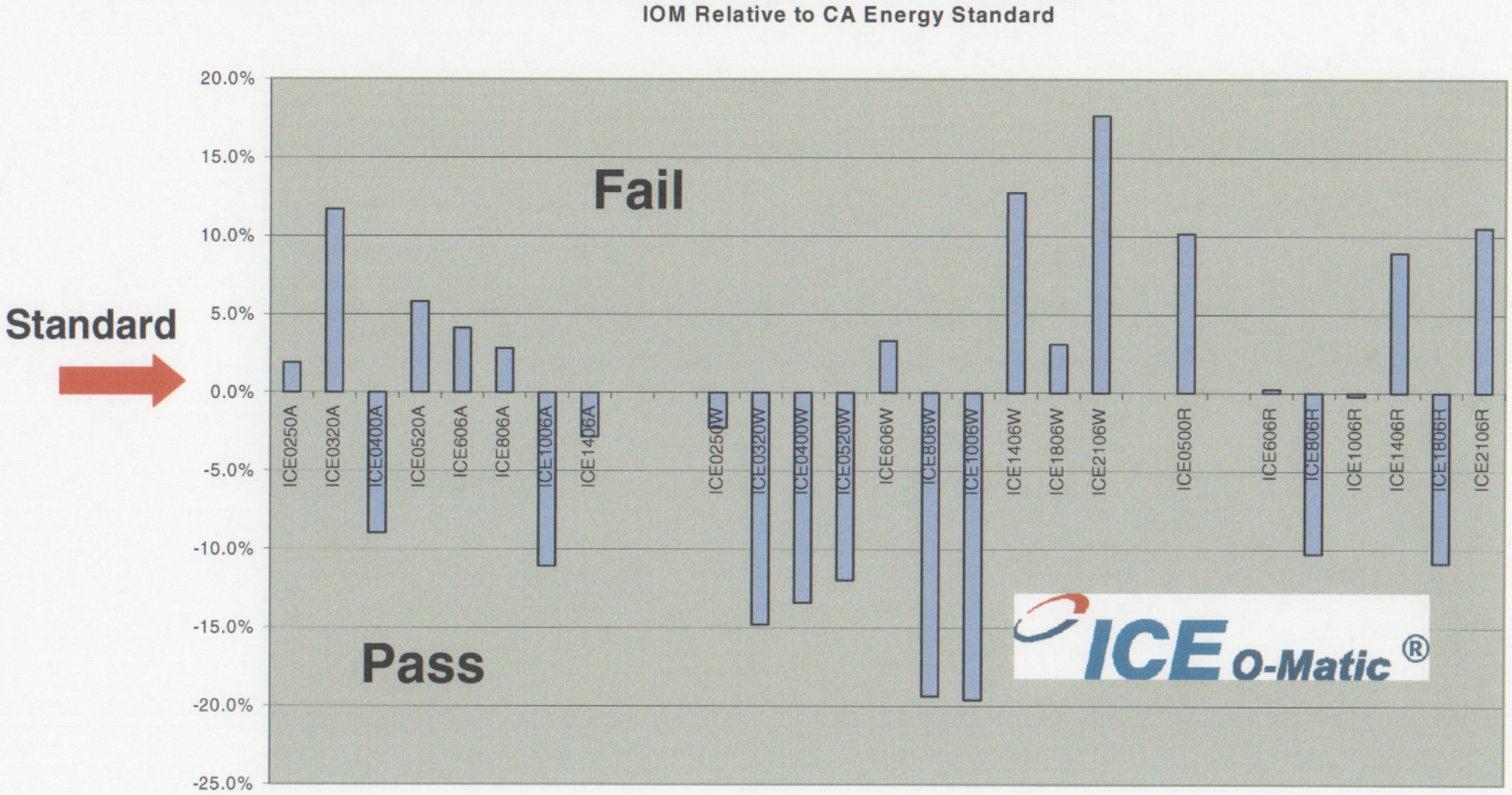
Impact on Enodis North American Ice Group

IOM will re-engineer <u>its core products</u> to meet the California energy prior to 2007 (except for 22" and Quiet machines)



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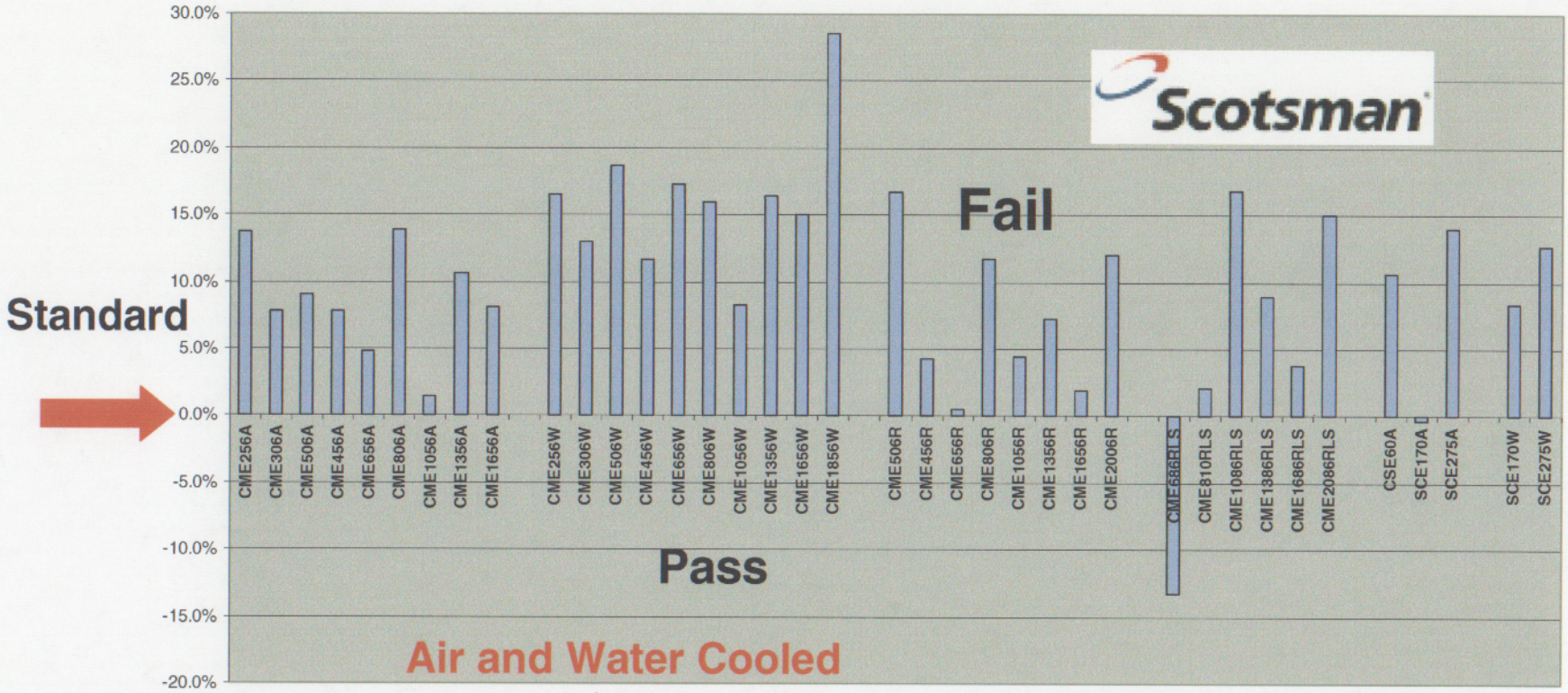
Impact on Enodis North American Ice Group

Re-engineering Scotsman products in the required time not feasible as only 2 out of 38 Scotsman products currently pass.

Current Scotsman Relative to CA Energy Standard



Scotsman will make a $9 million investment but will not be ready to launch new product line until 2008

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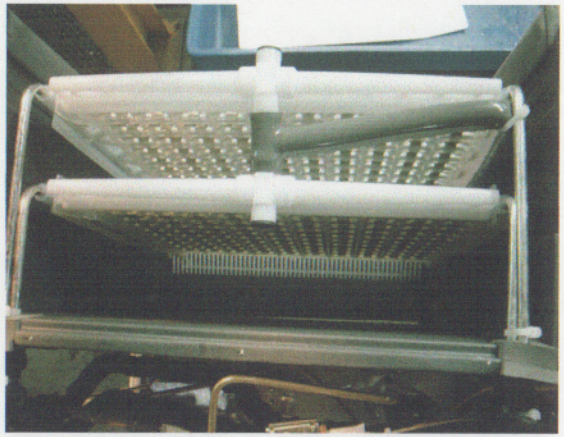
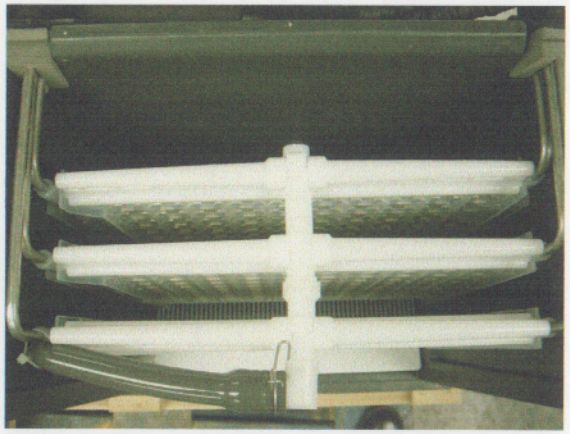
Scotsman Re-engineering Project

An additional evaporator will need to be added to most of the the Scotsman lines



Current Model CME506A

7.4 KWH/100 lbs



New Model CME506A

5.9 KWH/100 lbs

SUMMARY: Will add 10 – 15% to the cost of the machine

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Scotsman Re-engineering Project

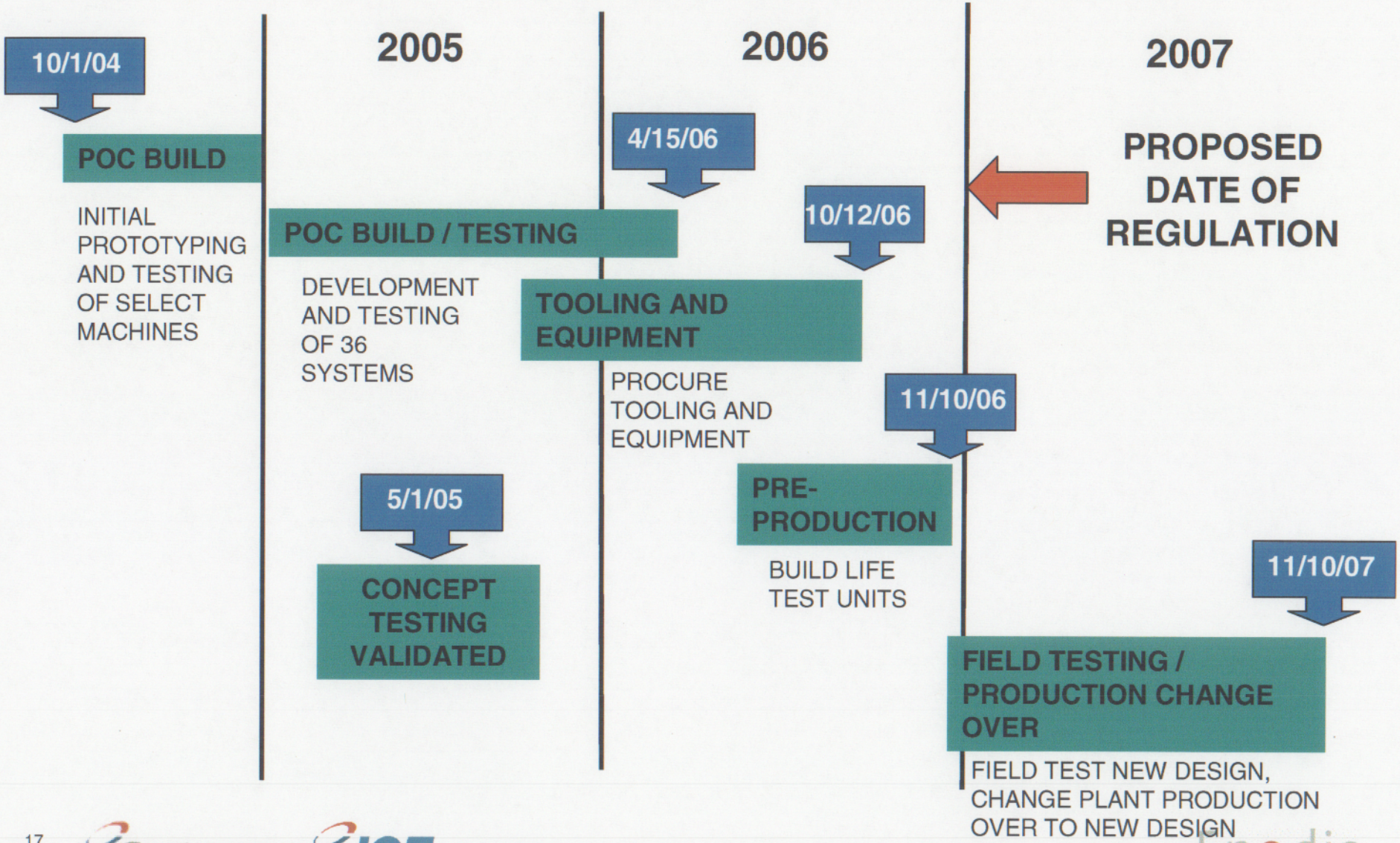
Work required to complete

- Redesign 36 refrigeration systems
- Redesign 6 cabinet sizes
- Develop new control system to accommodate evaporator changes

Actions in Process

- Cancelled all other Ice Machine projects
- Added 5 personnel
- Commitment of $9 million by Enodis Board
- Major re-layout of factory required

Project Timeline – Scotsman Individual Cube Machines



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Impact of Proposed Regulation on Scotsman

Timing of proposed regulation would cause severe adverse economic impact on Scotsman individual ice machines

- Impacts California business directly
- Indirectly impacts non-cuber business because distributors require complete product line
- Indirectly impacts chain business as they want common machine specification across country

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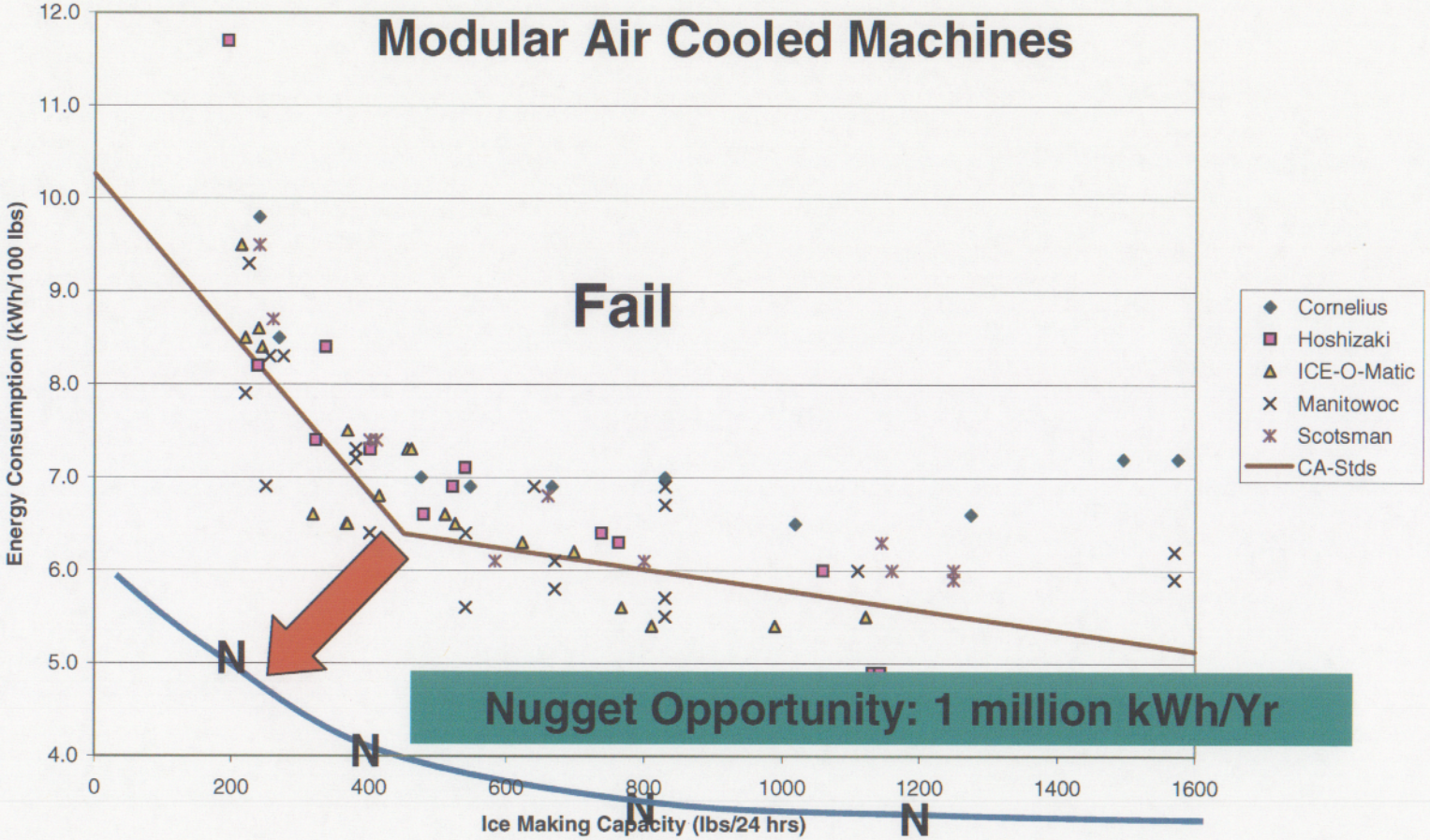
Category: Flaker and Nugget Machines

The proposed regulation does not recognize inherent water and energy efficiency advantages of flakers/nugget machines



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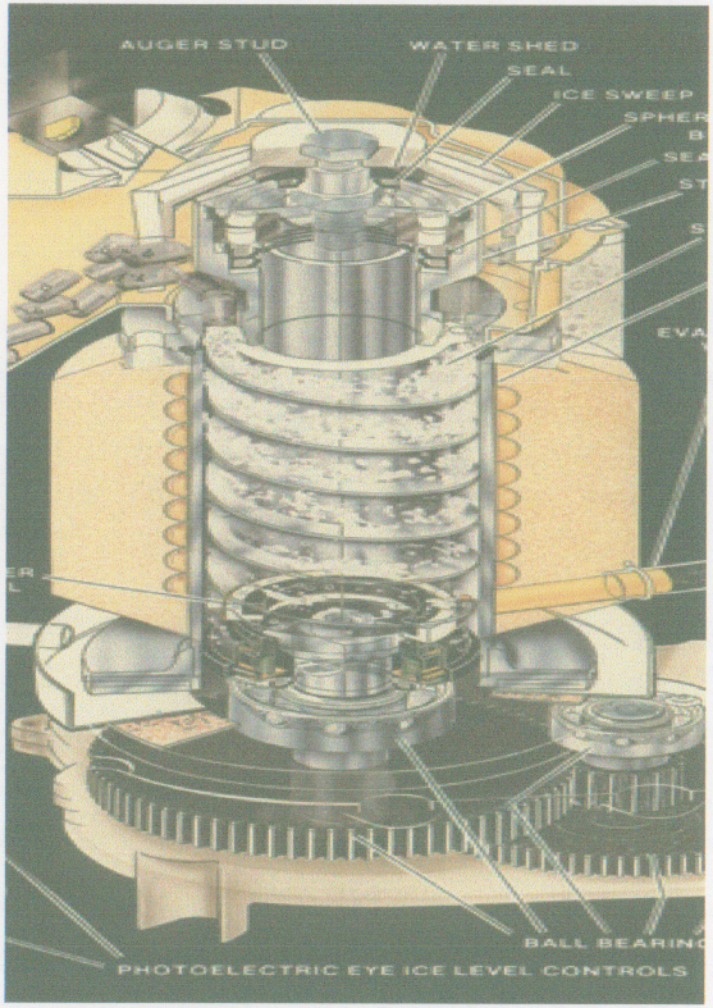
Positive Impact of Flaker/Nugget Machines



Nugget Ice Feezer

Nugget Ice

- Individual Pieces
- Chewable

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Machine Performance – Life Cycle Cost Example (Nuggets)

The California Standard also impacts application economics for the end user

Annual Cost Impact

	CME1356A (Current Machine)	California Regulation Compliant	NME1254A (Nugget Machine)
First Cost	$3010	$3010	$4000
Installation	$300	$300	$300
Electricity	$1150	$1020	$750
Water	$350	$350	$235
Maintenance	$235	$235	$235
Operating Cost	**$1735**	**$1605**	**$1220**

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Summary

1. IOM waffle cuber machines can be re-engineered to meet the timing of the proposed standard
   - Excluding 22 inch and Quiet Machines which will be done by 2008
2. Scotsman individual style cube machines are much more difficult to re-engineer by the deadline
   - 90% of current units fail
   - Major $9 million initiative underway to re-engineer entire product line
   - Project started and will require 36 months to complete (including 22 inch and Quiet machines)
3. Regulation does not call attention to flaker/nugget machines as an energy saving category
   - Opportunity to improve education

Proposed Language

"This standard does not apply to flake or nugget type ice machines. These machines are inherently more efficient for producing ice, using as much as 40% less electricity and water than cube type machines. California encourages the substitution of flake or nugget machines for cubers in commercial applications."

In Conclusion

To eliminate adverse impacts discussed in this brief, we respectfully request the dates around the regulation be as follows:

- **Compliance by 1/1/ 2007**
  - All "Waffle" except 22" & Quiet
- **Compliance by 1/1/2008**
  - Quiet Machines
  - 22 inch Machines
  - Individual Cube Machines

The End

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