

# Public Meeting – October 10, 2001

## Physical Protection Significance Determination Process

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*Attachment 1*

# Summary of August 30, 2001 Public Meeting

Re: PPSDP

# Aug 30, '01 PPSDP Public Meeting - Summary

## NRC attendees included:

- T. Reis, A. Madison, J. Creed, A. Tardiff, S. Morris (part time)
- NEI attendees included:
  - L. Hendricks, Tom Houghton (morning), A. Nelson, R. Rose, L. Hayes, S. Sovizral, T. Byecs, F. Puleo,
- Public stakeholders included
  - D. Lochbaum, UCS; E. Lyman, NCI
- Others
  - J. Weil, Inside NRC; D. Raleigh, NUS

## Aug 30, '01 PPSDP Public Meeting - Summary

- General consensus reached on:
  - purpose of meeting
  - SDP purpose and objectives
  - PPSDP background & development of interim

# Aug 30, '01 PPSDP Public Meeting - Summary

- Alignment reached on:
  - Loss of target set equates to core damage for SDP model
    - Loss of TS does not necessarily equate to “strategy deficiency”
  - A finding may or may not be related to regulatory requirements
  - Group 2 questions
- NRC outlined its interests in any revision
  - Duplicated on next slide

# NRC's Interests in Future PPSDP

- **Focused on safeguards performance**
- **Significance of F-o-F findings correlated to protection of target sets**
  - Not on whether or not the core was protected once the agreed upon target sets destroyed
- **Consistent with proposed rulemaking**
- **Covers non exercise safeguards findings**
- **More objective**
- **Predictable**
- **Maintenance of concept**
  - Findings may or may not be related to regulatory requirements.
- **Reduce or eliminate influence of “Artificialities”**

# NEIs Comments on NRC Interests

NEI would only add:

- Consistent with SPA approach to self assessment & correspondingly
- Interest in pursuing EP-like SDP
- Need to pilot

# Flip charts from 8/30 meeting

- Public Stakeholder Interests
  - One guy turning wrong way that results in TS loss is not Green, shows system is not robust
  - Go back to original model
  - Update PRAs to include sabotage
  - Loss of TS should be more than Green – core damage is a threat to public health and safety
  - Make more objective by tying to significance of results
  - Exercise performance equates to real performance
  - “Artificialities” skew results of evaluation (hide performance problems)



# Flip charts from 8/30 meeting

- Industry Interests
  - Do not equate drill with actual performance
  - Loss of TS does not equal “loss” of strategy
  - [Vision of performance venues] Day-to-Day, Testing, Real Event
  - Same as NRC’s
  - Safeguards should be analogous to EP
  - Need to compare and contrast EP/Safeguards
  - Drill results are different than “real performance”

# NEI's General Position

- Too much emphasis being placed on evaluated exercises
- NEI does not take issue with appropriate regulatory response being taken (e.g. colored findings for:
  - Regulatory issues
  - Protective strategy deficiencies
- NEI wants however, self control over exercise deficiencies including
  - Artificialities, controller issues
  - Simple implementation errors
- NEI considers evaluated exercises should be a learning, assessment tool

# UCS Position

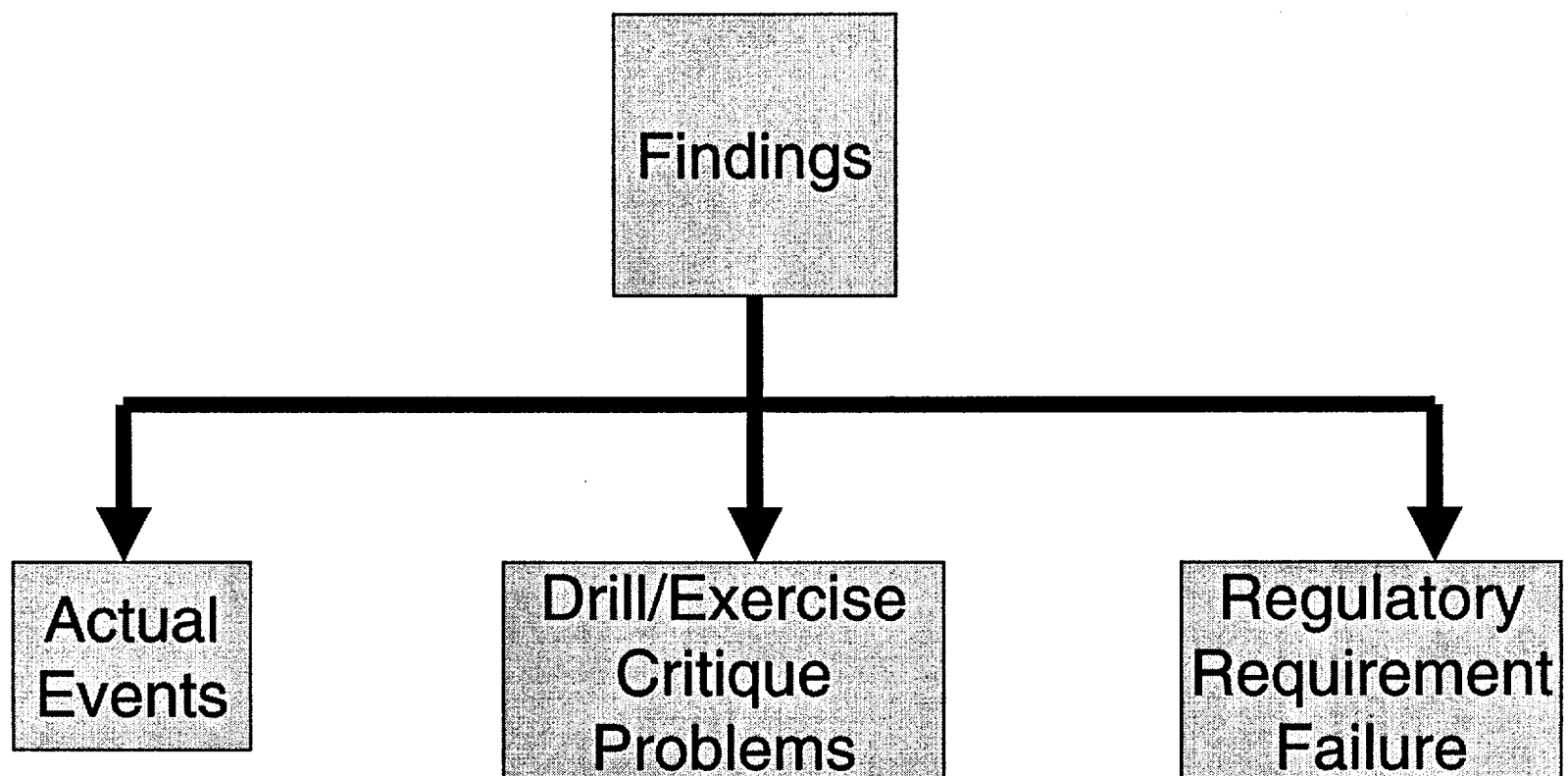
- UCS considers current model broken
  - Wanted original PPSDP with link to RSSDP restored
  - Later abandoned that request favoring hybrid of NRC staff simpler model
  - Wrote followup letter to that effect

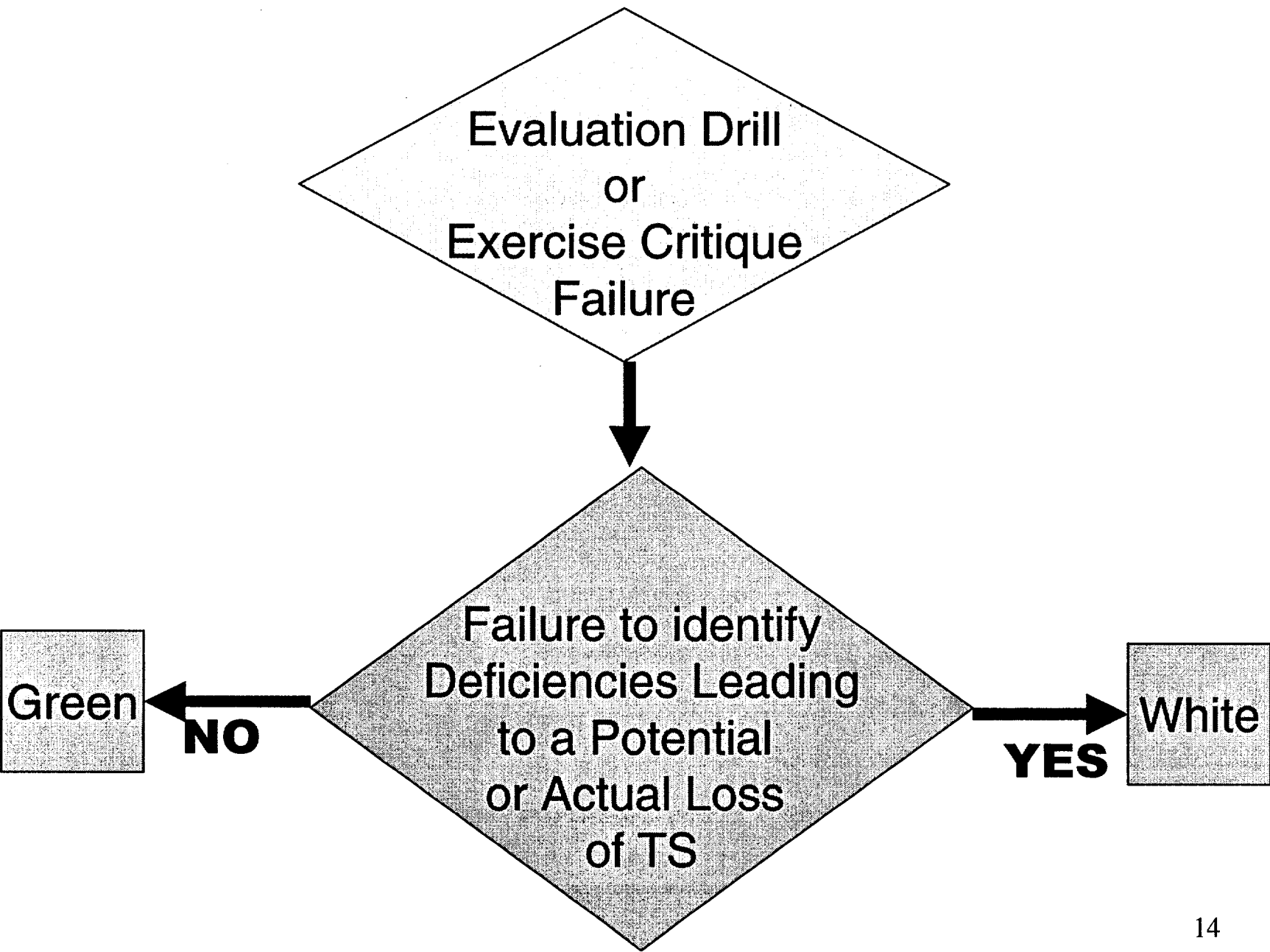
# NCI position

- NCI's objectives
  - Must demonstrate to public at anytime that response force is capable of defeating DBT
  - Does not support “outs” for evaluated exercises
    - Again, public confidence
  - Does not support industry's model
  - Commented that NRC staff model was workable

# NEI's Proposed Model

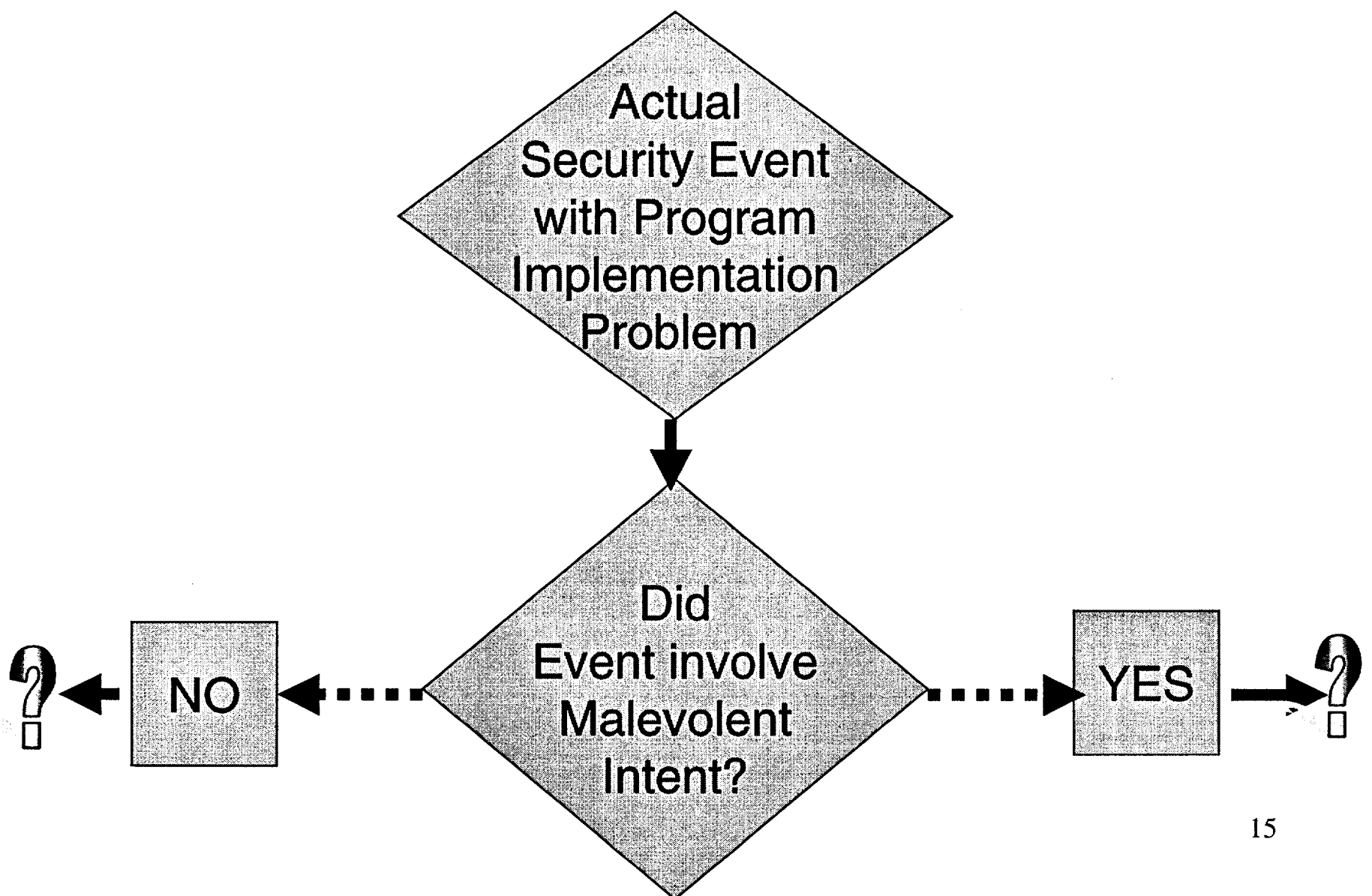
(not intended to represent a working model – just a concept)

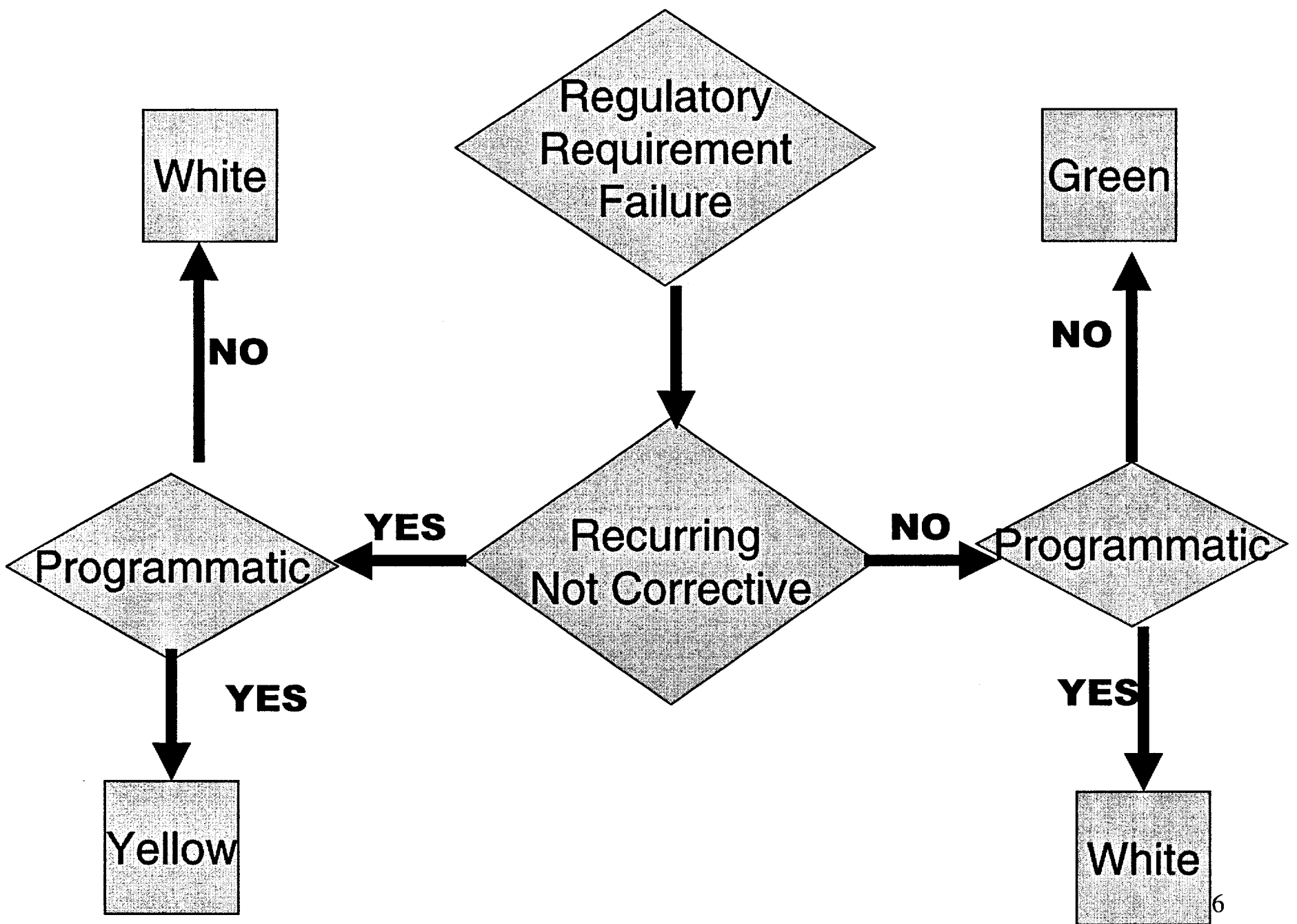




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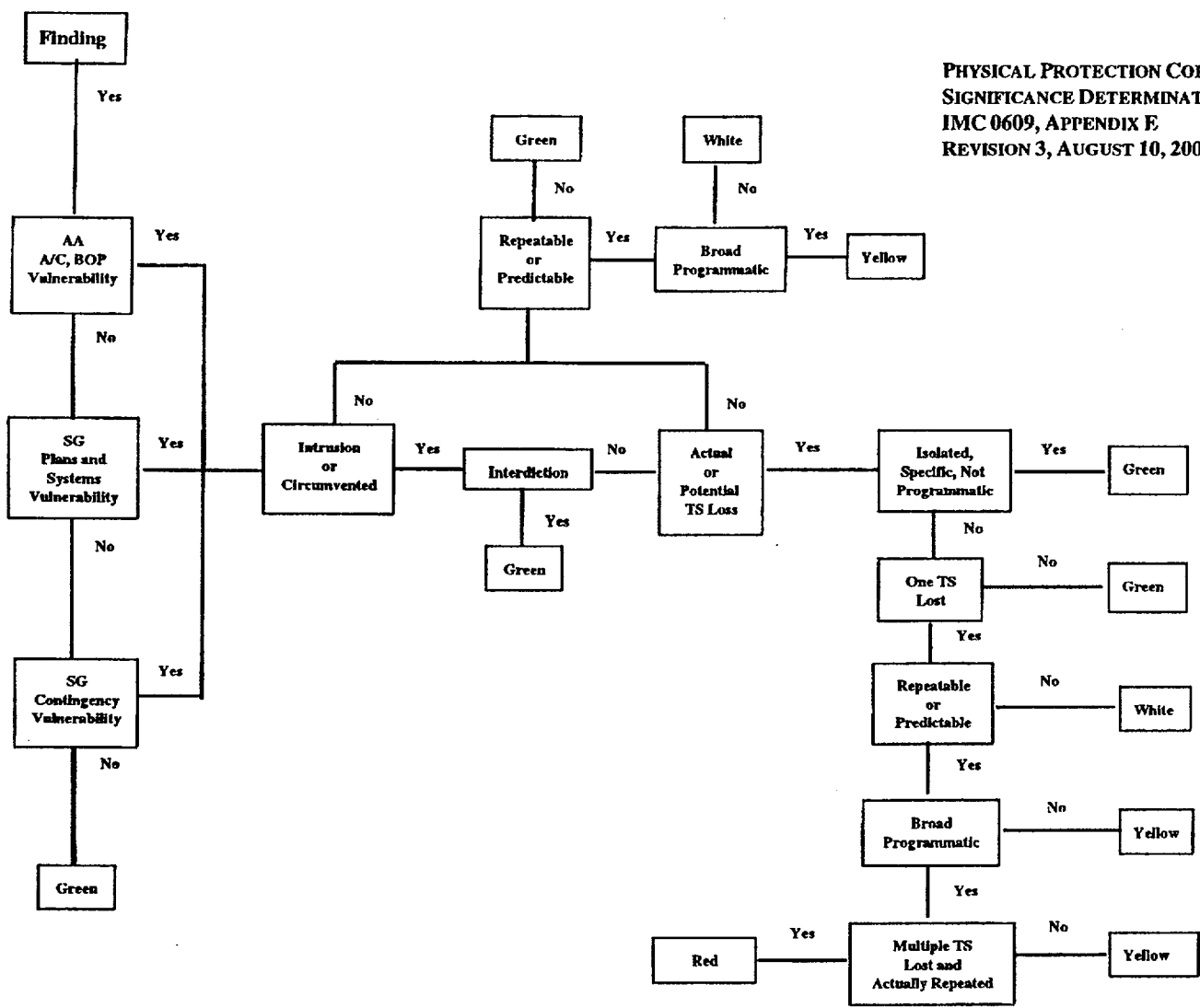
# T. Reis's Idea

(for force-on-force issues only)

- Green – loss of a limited portion of a target set due to a protective strategy deficiency.
  - White - loss of a complete target set, for any reason within the licensee's control, including drill artificialities & controller errors, but not due to a protective strategy deficiency.
  - Yellow - Loss of a complete target set due to a protective strategy deficiency.
  - Red - Loss of multiple target sets due to protective strategy deficiencies.
- Protective strategy deficiency – a deficiency or flaw in the strategy itself , its implementing procedures, deficient plant hardware or training deficiencies that resulted in the inability to implement the strategy

**Following represents another NRC staff proposal of improvement of the existing model**

- Improve definitions to reduce subjectivity**
- Concept already tested**
- Commission endorsed interim**



# Physical Protection Significance Determination Process

Moving forward from August 30,  
2001 meeting  
September 14, 2001

# **ROP Fundamentals – EP vs Physical Security**

## **Emergency Preparedness**

Cornerstone Objective is to : “ensure that the licensee is capable of implementing adequate measures to protect the public health and safety in the event of a radiological emergency.”

Performance Expectation: “Demonstrate that reasonable assurance exists that the licensee can effectively implement its emergency plan to adequately protect the public health and safety in the event of a radiological emergency.”

**Vs**

## **Physical Security**

Objective – to protect against the design basis threat of radiological sabotage.

Performance Expectation – provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety. The physical protection program shall be designed to protect against the design basis threat of radiological sabotage.

# Comparison to EP

- EP Group 2 Questions
  - (1) Does the issue involve a failure to meet or implement a regulatory requirement?
  - (2) Does the issue involve a drill or exercise critique problem?
    - Second question is clarified as failure to identify a weakness that prevented the effective, timely and/or accurate implementation of a regulatory requirement or PS
- PP Group 2 Questions
  - Does the issue involve a failure to meet the requirements of 10 CFR 73.55(b)-(h), or associated plans, procedure or rules?
  - Does the issue impact any key attribute of the Physical Protection Cornerstone to meet its intended function whether in performance, design or implementation?

# Concerns with EP Model Applied to PPSDP

- Reluctance to not characterize significance of “finding” based on who identified it
  - Significance of finding independent of identification – fundamental to ROP/SDP
- Not appropriate to limit “findings” to violations
- Proposed rule requires drills & exercises
  - Licensee should be assessed on both
    - Ability to conduct drills and exercises
    - Implementation of its response strategy
  - Assessment should not be based solely on integrity of protective strategy
- Subjectivity remains – programmatic, repetitive, recurring

## Positive aspects of applying EP model

- Achieves consistency in cornerstones that are largely evaluated on exercise results
  - However, is consistency appropriate?
    - Recall cornerstone performance expectations
      - EP – Demonstrate “reasonable assurance”
      - PP – Provide “high assurance”
- Arguably provides incentive for challenging self regulation



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# Pros & Cons of Reis Model

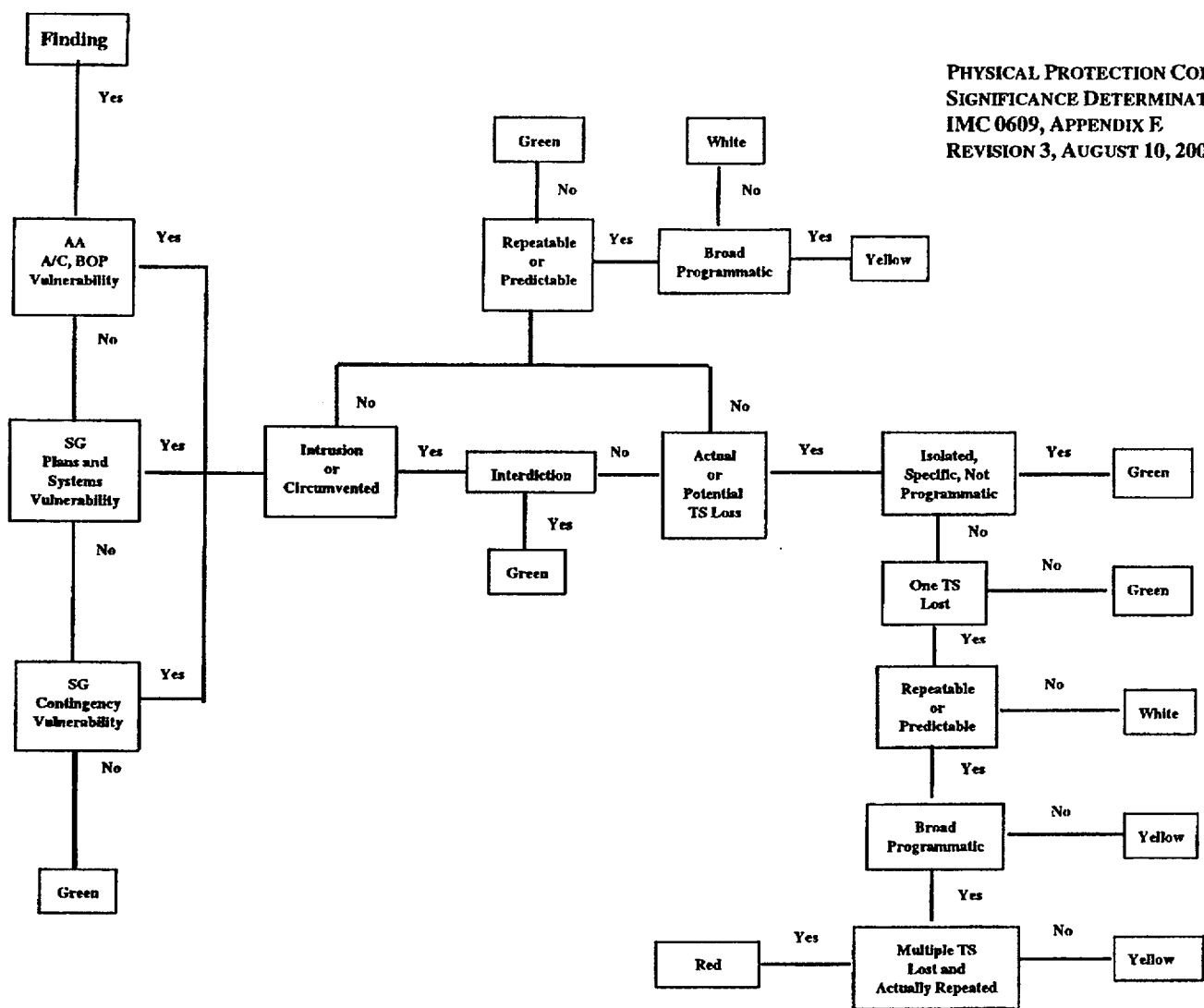
- Pros (Cons to some)
  - Reduces subjectivity
  - Provides a logical graded approach to significance
  - Focuses most significance appropriately on protective strategy
    - Requires, however, accountability for its implementation & ability to conduct drills
  - Eliminates disagreements over ever present artificialities & controller issues
  - More predictable
- Cons (Pros to some)
  - Raises bar for performance
  - Not consistent with EP model

# White Finding Justification

- In Reis model
  - White: loss of a complete target set, for any reason within the licensee's control, including drill artificialities & controller errors, but not due to a protective strategy deficiency.
- Justification
  - Proposed rule requires performance evaluation
  - Licensee's must be able to conduct meaningful exercises to achieve appropriate evaluation
  - Ability to conduct drills is integral to the process
  - In 4 of 6 OSRE's to date, controller issues/artificialities impacted the consideration of, not necessarily the final determination of, significance
  - Basis document: White – outside normal performance; still acceptable; performance within objective of cornerstone

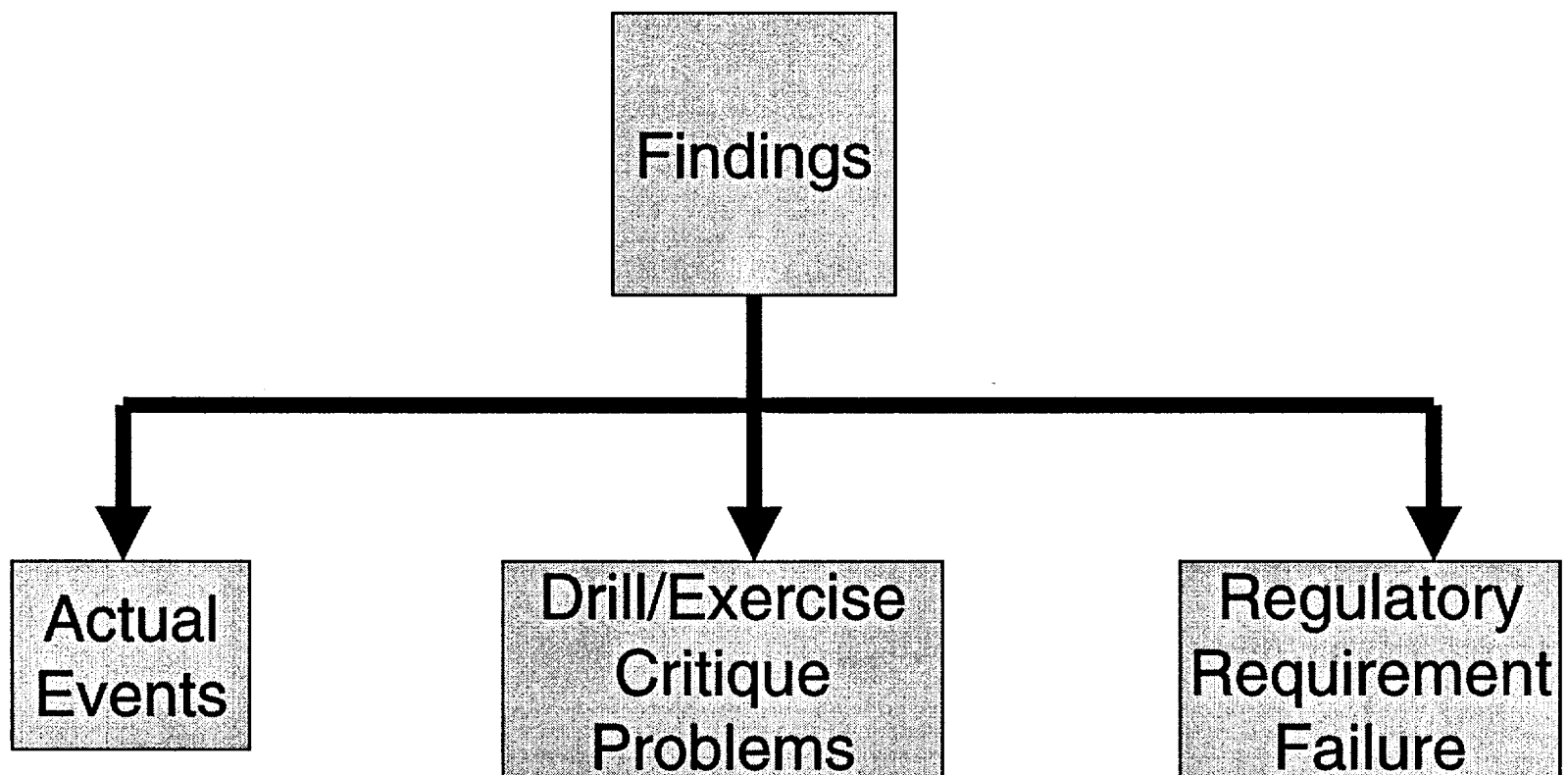
# Improved existing model

- Similar to current model (IPPSDP) for F-O-F
- Provides framework for non F-O-F findings
- Pros (cons to some)
  - Builds on existing framework and experience
  - Subjectivity reduced by better definition of attributes of significance levels
  - Provides framework for non F-O-F findings
- Cons (pros to some)
  - Allows controller issues/artificialities to influence outcome
  - No matter how well defined, isolated, predictable, repeatable, programmatic, etc. are subjective terms



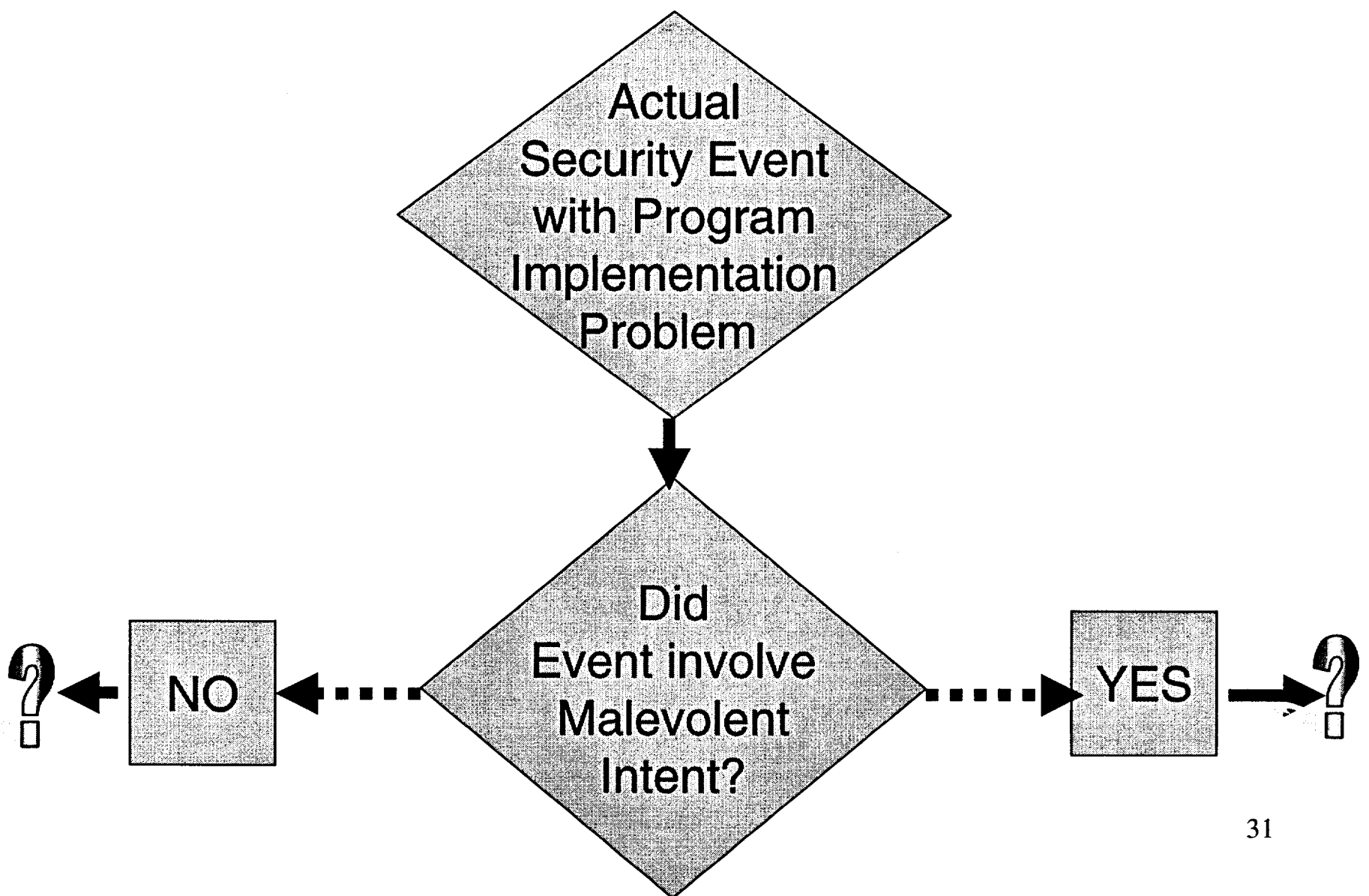
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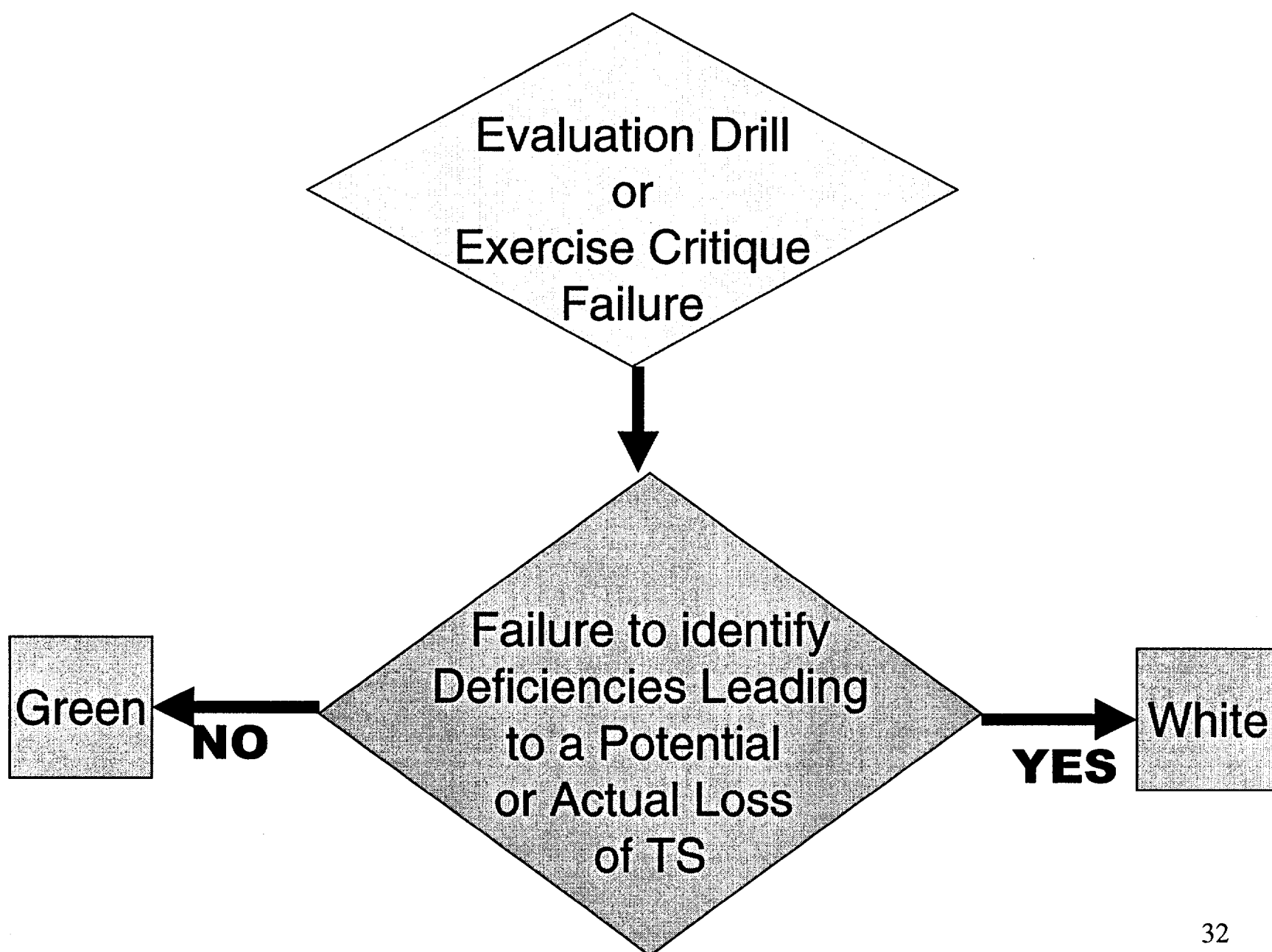
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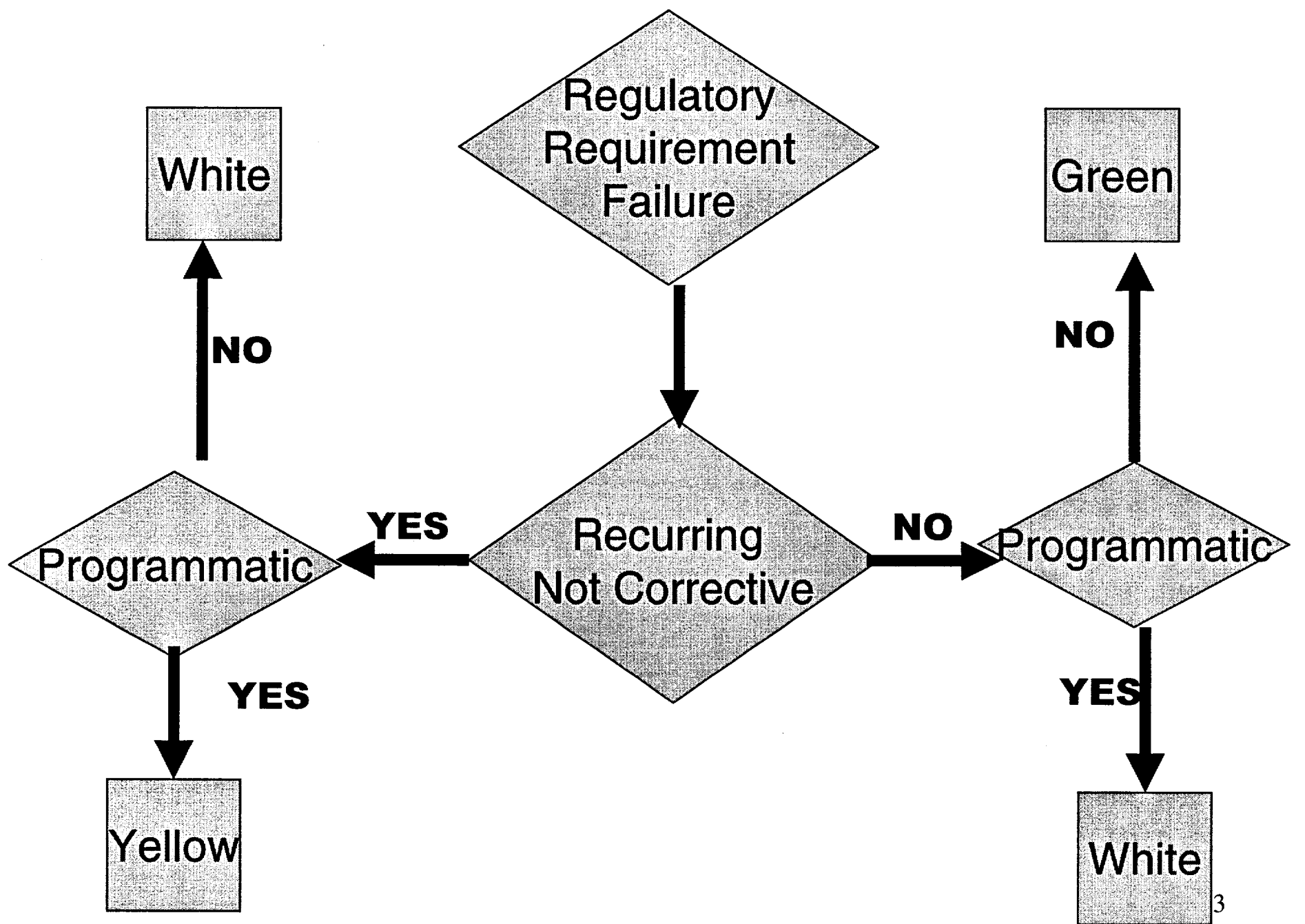
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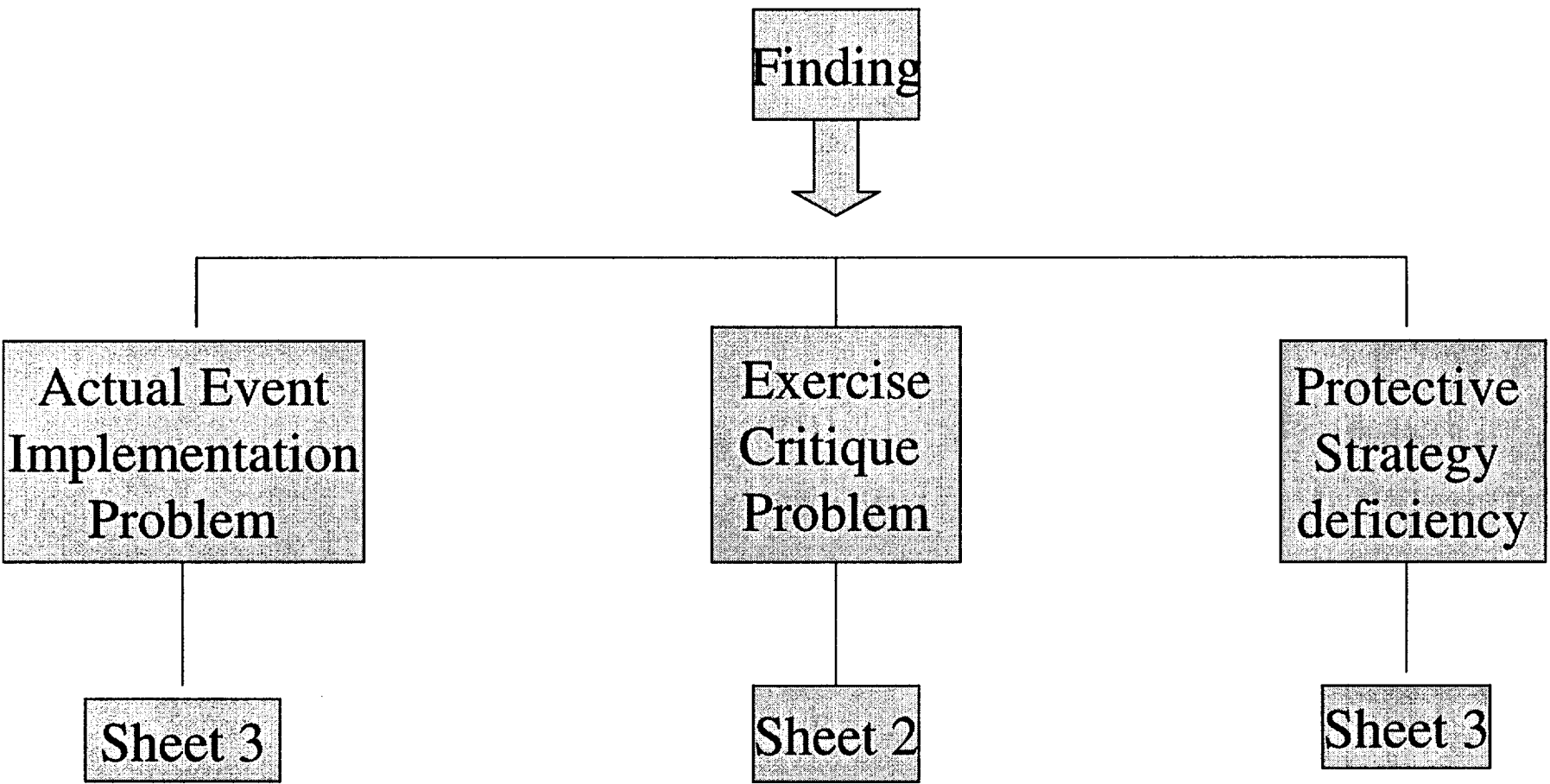


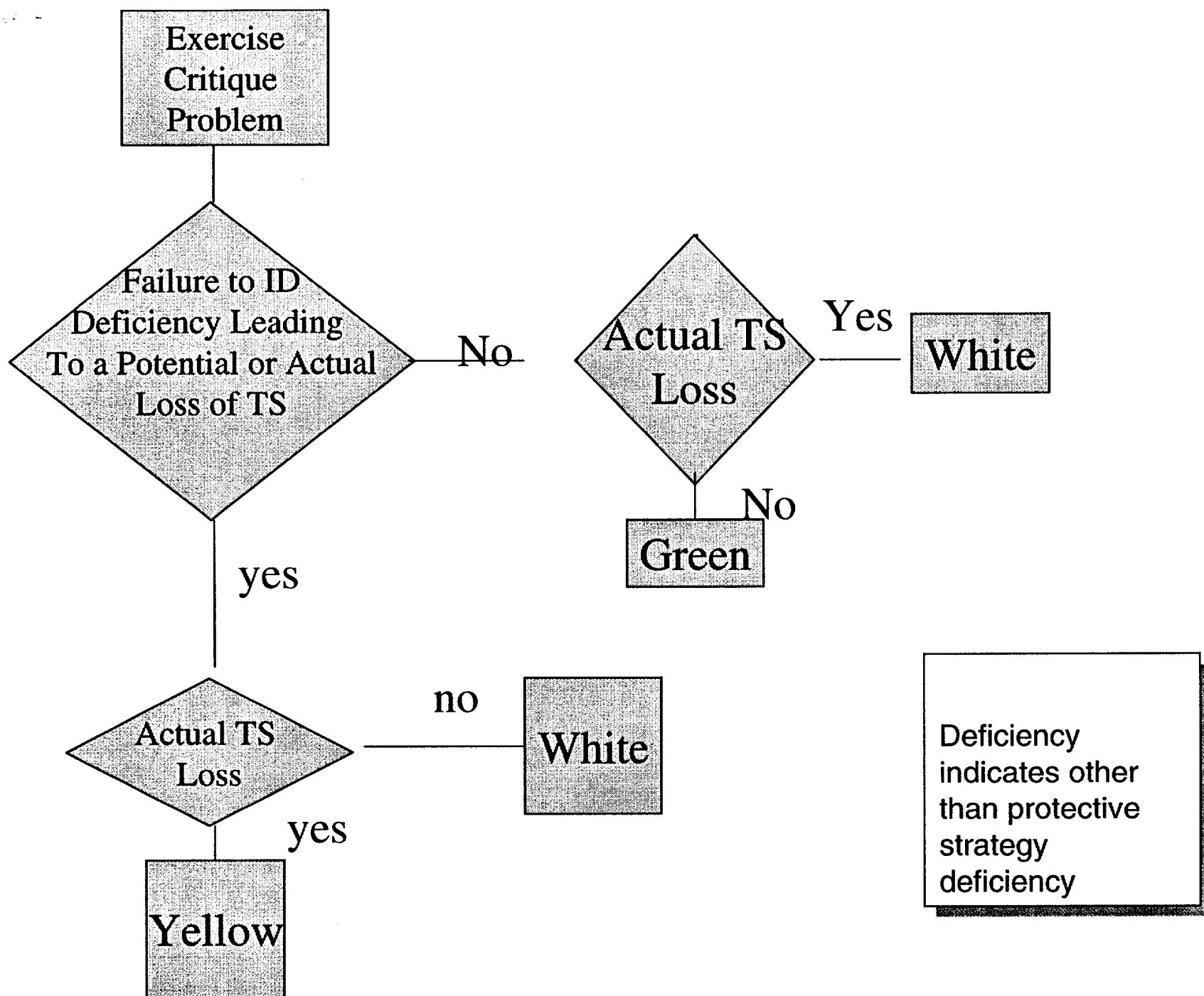


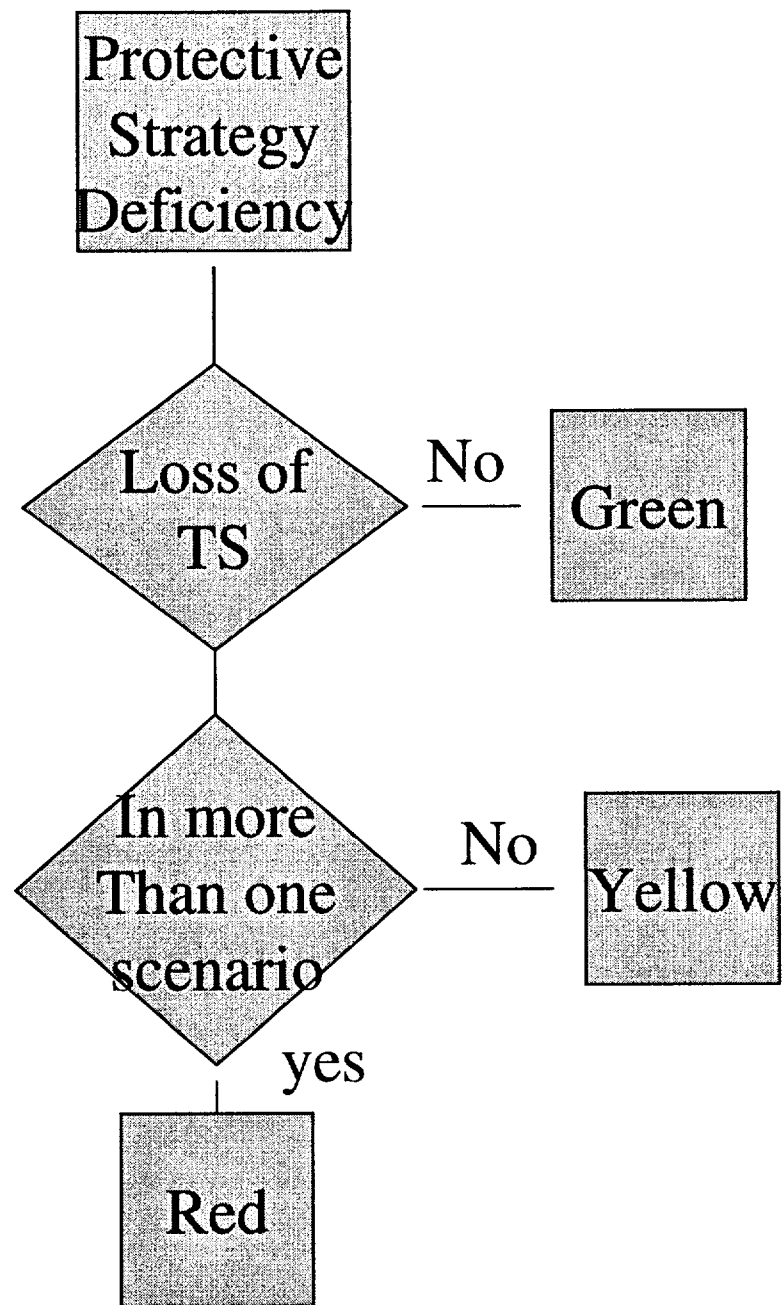


# Proposed Revision to NEI proposal

September 7, 2001







Actual  
Event  
Implementation  
Problem



To be  
determined