

Progress Energy Input to NFPA 805 Pilot Planning Meeting

NRC Region II
Atlanta, GA
August 11, 2005



Progress Energy Input to NFPA 805 Pilot Planning Meeting

Progress Energy (PE) Attendees:

- ▶ Paul Gaffney, Chief Electrical/I&C Engineer
- ▶ Jeff Ertman, NFPA 805 Transition Project Manager
- ▶ John Caves, PSA Supervisor
- ▶ Tony Maness, HNP Site NFPA 805 Project Lead
- ▶ Dave Corlett, HNP Licensing Supervisor
- ▶ Ken Heffner, Lead Licensing Engineer

NFPA 805 Pilot Planning Meeting

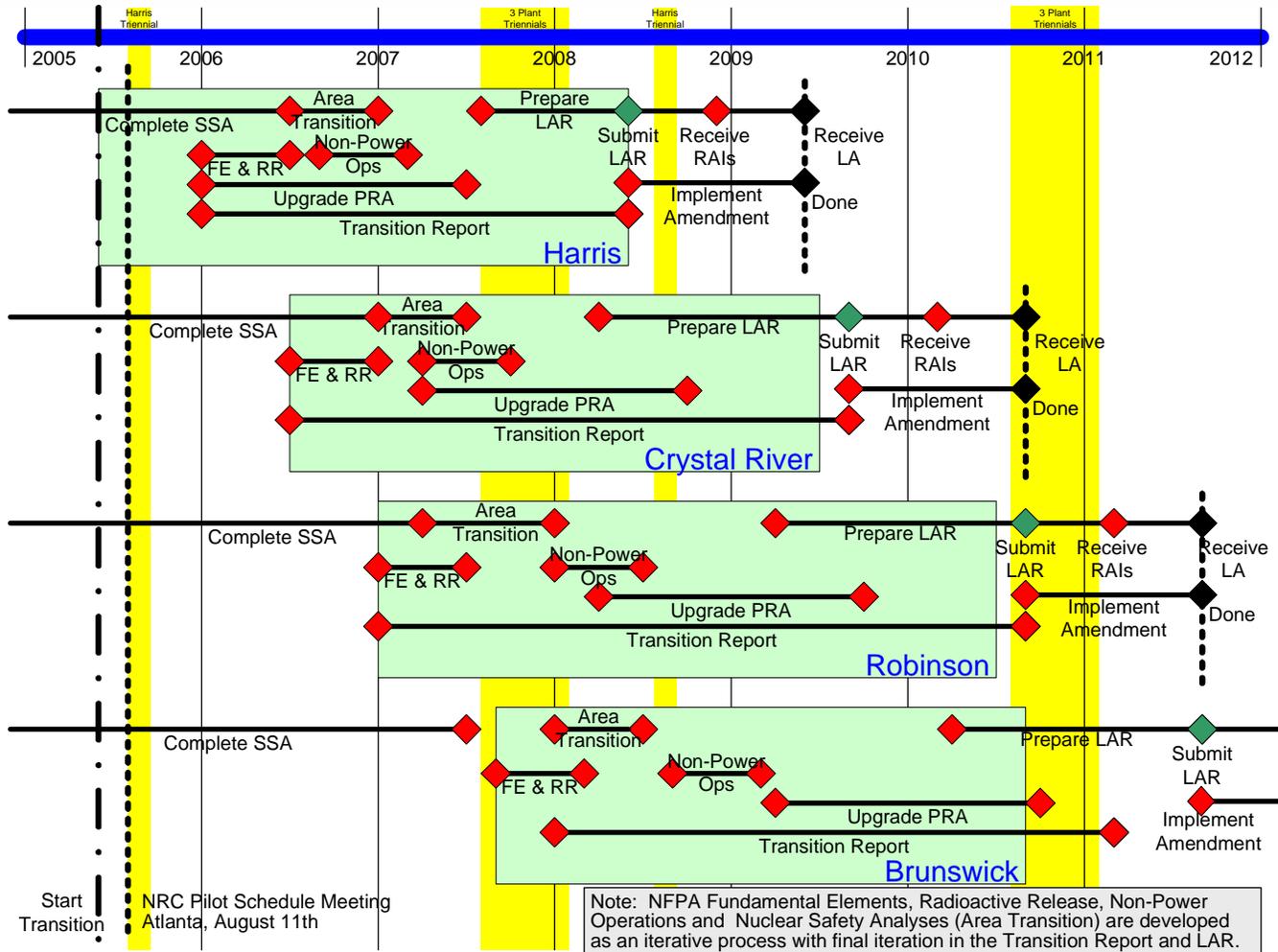
Progress Energy Pilot & NFPA 805 Goals

- Focus on Nuclear Safety
- Restore Fire Protection Compliance
- Clean up licensing basis

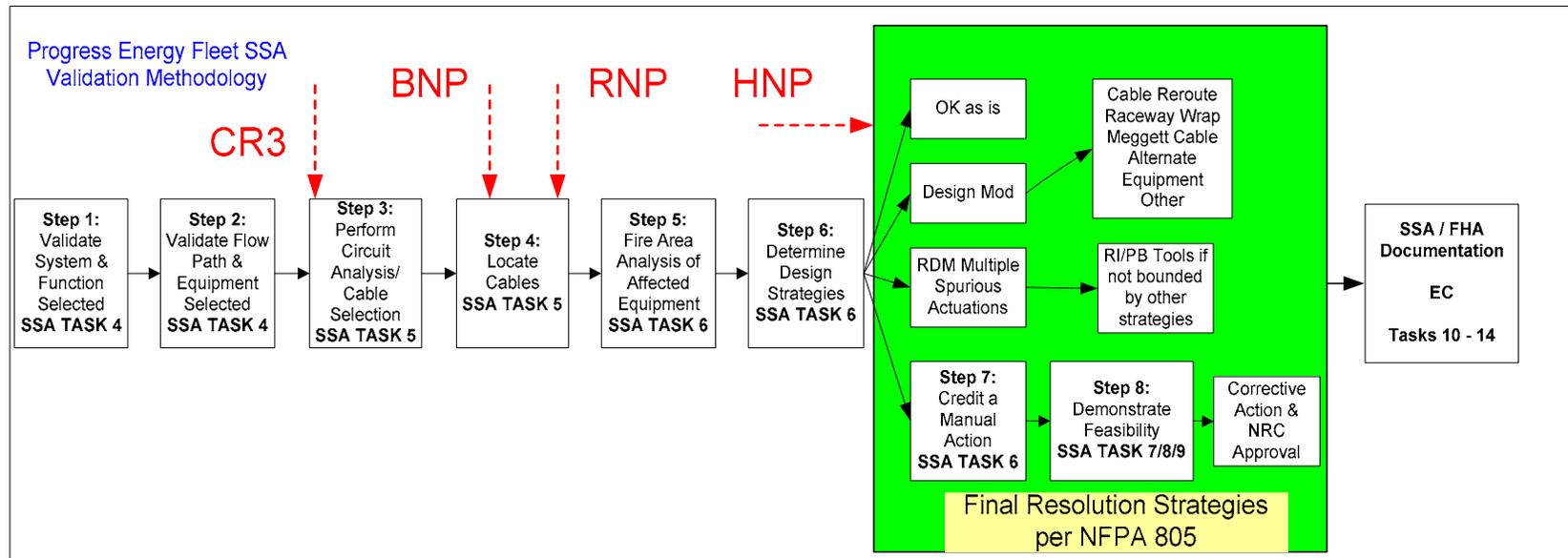
NFPA 805 Pilot Planning Meeting Progress Energy Objectives

- Communicate PE transition plans
- Identify key pilot observations
- Identify milestones
- Identify resources for the observation visits such as location, personnel needed, materials needed, and duration
- Handling of deficiencies

NFPA 805 Pilot Planning Meeting Overview PE Schedule



NFPA 805 Pilot Planning Meeting PE Status SSA Validation Schedule



NFPA 805 Pilot Planning Meeting

Key Pilot Interactions

- NSPA (SSA) Transition - Comparison to NEI 00-01
 - Multiple circuit failures
 - Recovery Action evaluations T-H & HRA
- Chapter 3 Transition
- Internal Events PRA / Fire PRA
- Fire Modeling
- Radioactive release during firefighting activities
- Non-power operations
- RI change evaluation process
- Fire Protection Performance Monitoring
- CAP tracking of FP deficiencies for resolutions under NFPA 805 / Enforcement Discretion

NFPA 805 Pilot Planning Meeting

PE NFPA 805 Transition Project Approach

- Through 2005
 - Detailed planning, procedure/process development, and team assembly
 - NEI 00-01 comparison and finalize Fire NSPA criteria and methodology in late 2005
 - Fire PRA Gap review
- Continue work HNP SSA Validation
 - NRC Triennial Inspection
 - Prioritize open SSA Validation issues
- Scheduled to start PRA work and Chapter 3 Transition in early 1Q2006

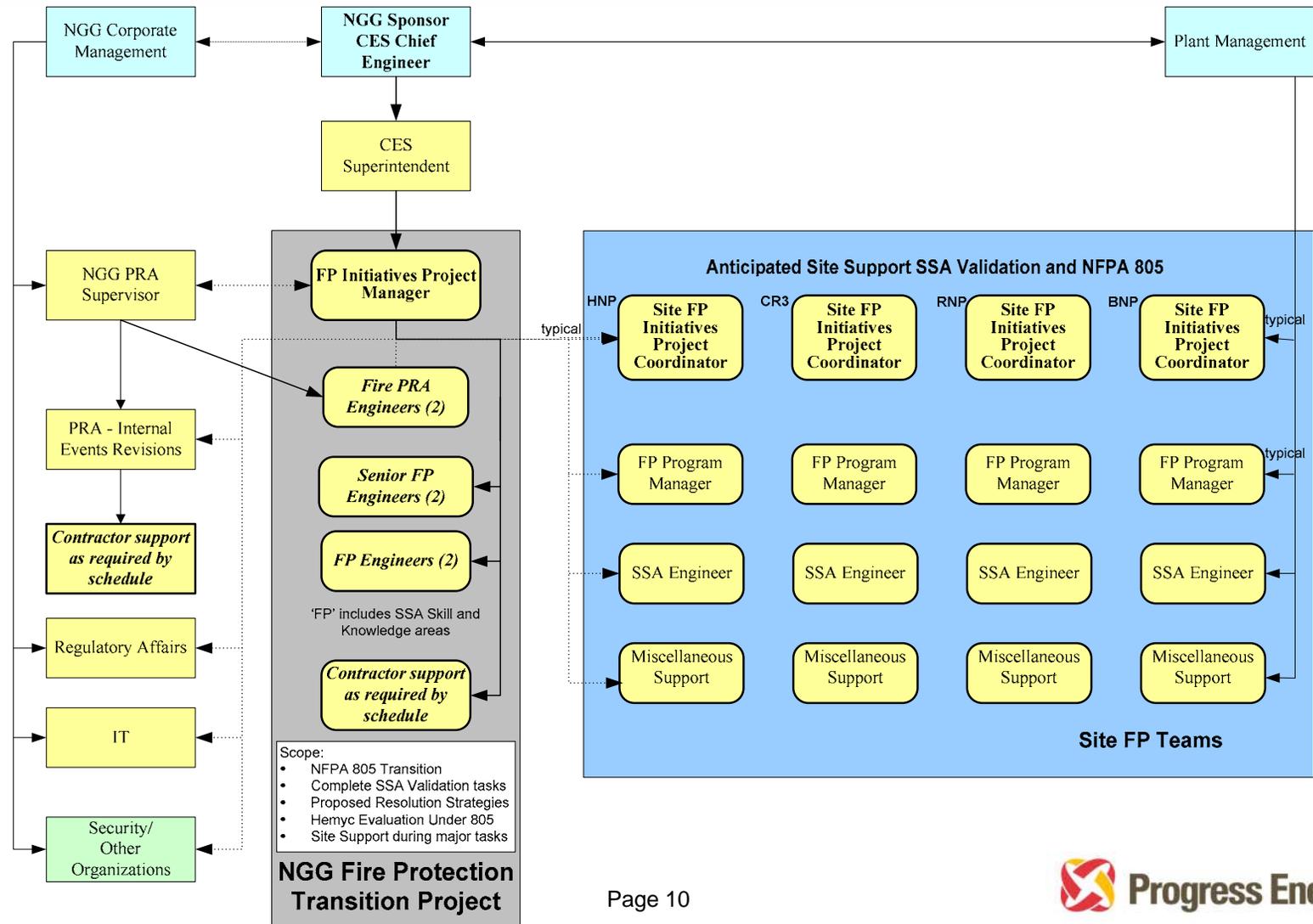
Progress Energy NFPA 805 Transition Project

ID	Task Name	2005		2006		2007		2008		2009	
		H2	H1	H2	H1	H2	H1	H2	H1	H2	
1	Develop Project Plan - Letter of Intent June 10, 2005										
5	NFPA 805 TRANSITION										
6	NRC Pilot Observations										
7	NRC, Duke, PE Project Planning Kickoff - Atlanta										
8	NRC HNP Observation 1 (Est)										
9	NRC HNP Observation 2 (Est)										
10	NRC HNP Observation 3 (Est - etc)										
11	NRC Observations Complete										
12	Task 1.0 Project Initiation										
13	Start Project Plan Tasks										
14	Sub-Task 1.1 - Define Picture of Post Transition Fire Protection Program										
16	Sub-Task 1.2 - NSPA Methodology Review										
19	Sub-Task 1.3 - Develop processes, procedures, documents for project										
76	HNP										
77	HNP: Task 2.0 Fundamental FP Program and Design Elements Transition										
88	HNP: Task 3.0 Radioactive Release Transition										
95	HNP: Task 4.0 Nuclear Safety Performance Analysis (NSPA) Transition										
96	Sub-Task 4.1 - Complete SSA Validation Project under CLB										
114	Sub-Task 4.2 - 4.5 Fire Area Transition										
129	HNP: Task 5.0 Non-Power Operational Modes										
138	HNP: Task 6.0 Internal Events Upgrade as needed to support Fire PRA										
146	HNP: Task 7.0 Develop Fire PRA										
186	HNP: Task 8.0 NFPA 805 Change Evaluations										
188	HNP: Task 9.0 Mapping of Post-Transition Procedure and Documents										
203	HNP: Task 10.0 Transition Report										
205	HNP: Task 11.0 License Amendment Request										
209	HNP: Task 12.0 RAI Responses										
210	HNP: LICENSE AMENDMENT RECEIVED										
211	HNP: Task 13.0 Program Implementation										
216	Z: Project Closeout										

Project: PE NFPA 805 Date: August 9, 2005	Task		Summary		Rolled Up Progress		Project Summary	
	Progress		Rolled Up Task		Split		Group By Summary	
	Milestone		Rolled Up Milestone		External Tasks		Deadline	

NFPA 805 Pilot Planning Meeting

PE NFPA 805 Transition Project Team



NFPA 805 Pilot Planning Meeting

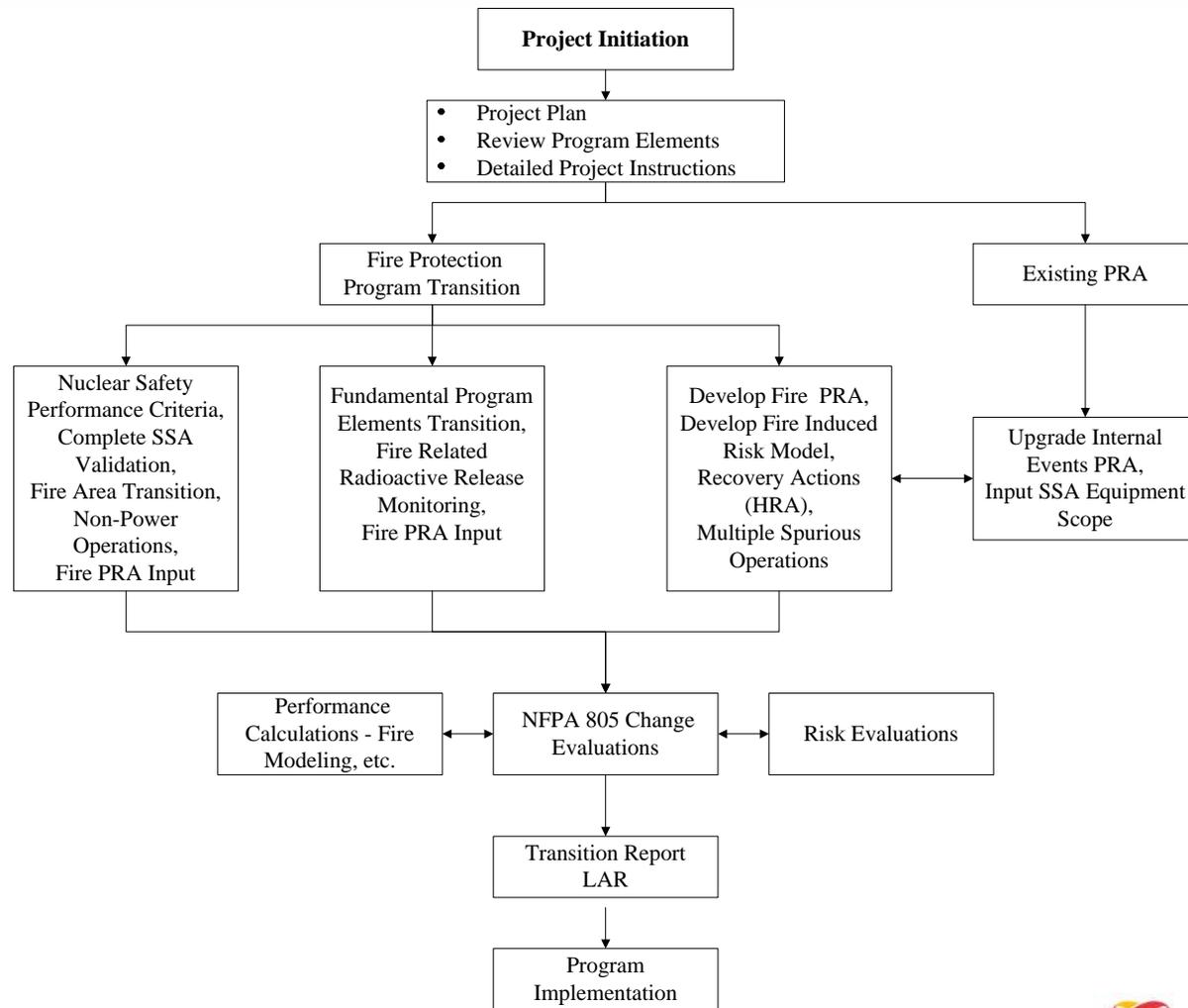
- Break

NFPA 805 Pilot Planning Meeting

PE Transition Plan Overview

- Guidance Documents Used
 - ▶ NEI 04-02 – *Guidance for Implementing a Risk-Informed, Performance-Based Fire Protection Program under 10CFR50.48(c)*
 - ▶ NEI 00-01, *Guidance for Post-Fire Safe Shutdown Circuit Analysis*
 - ▶ NUREG/CR-6850, *Fire PRA Methodology for Nuclear Power Facilities*

NFPA 805 Pilot Planning Meeting Project Plan - Overview Work Flow



NFPA 805 Pilot Planning Meeting

PE Transition Plan - Key Interactions

- SSA and NSPA
- Chapter 3 Transition
- Internal Events PRA / Fire PRA
- Fire Modeling
- Non - Power Ops & Radioactive Release
- Change process & NFPA 805 Implementation
- Performance Monitoring
- CAP tracking of FP deficiencies

NFPA 805 Pilot Planning Meeting SSA and NSPA

- Tasks and approximate timing:
 - ▶ 1.2 - Existing SSA / NEI 00-01 Methodology Comparison - November 2005
 - ▶ 4.1.7 - SSA Transient Analysis/Operation Considerations – April 2006
 - ▶ 4.2 - NSPA Fire Area-by-fire Area Transition sample results – July 2006
 - ▶ 4.5 - NSPA Recovery Actions – November 2006
- Discussion of resources

NFPA 805 Pilot Planning Meeting

Chapter 3 Transition

- Tasks and approximate timing:
 - ▶ 2.1.1 – Non Fire Area specific elements – March 2006
 - ▶ 2.1.2 – Fire Area specific FP elements – January 2007
- Discussion of resources

NFPA 805 Pilot Planning Meeting

Internal Events PRA / Fire PRA

- Tasks and approximate timing:
 - ▶ 1.3.2.4 – Fire PRA Gap review – November 2005
 - ▶ 6.2 – Internal Events PRA Gap Assessment – January 2006
 - ▶ 7.4 – Fire PRA Component Mapping – June 2006
 - ▶ 7.10 – Circuit Failure Mode Analysis – September 2006
 - ▶ 7.6 – Fire Induced PRA Model – February 2007
 - ▶ 7.12 – Human Reliability Analysis – June 2007
 - ▶ 7.13 – Fire Risk Quantification – September 2007
 - ▶ 7.14 – Uncertainty Analysis – November 2007
- Discussion of resources

NFPA 805 Pilot Planning Meeting

Fire Modeling

- Tasks and approximate timing:
 - ▶ 4.1.8 – SSA Validation Recovery Action Feasibility – February 2006
 - ▶ 7.11 – Detailed Fire Modeling for Fire PRA – September 2006
- Discussion of resources

NFPA 805 Pilot Planning Meeting

Non - Power Ops and Radioactive Release

- Tasks and approximate timing:
 - ▶ 3.2.3 – Identify changes to Fire Brigade training – July 2006
 - ▶ 5.2.4 - Revision to site outage risk review process – October 2006

- Discussion of resources

NFPA 805 Pilot Planning Meeting Change Process & Implementation

- Tasks and approximate timing:
 - ▶ 1.3.2.8 – Change Process Procedure – October 2005
 - ▶ 8.1.1 – Change Process Products – (TBD)
 - ◆ Fundamental Element Performance Based Evaluation (if any)
 - ◆ Barrier (such as Heymc) Change Evaluation
 - ◆ Recovery Action Change Evaluation
 - ◆ Sample of other unique type Change Evaluations
 - ▶ 13.0 – Program Implementation
- Discussion of resources

NFPA 805 Pilot Planning Meeting Performance Monitoring, CAP Tracking

- Tasks and approximate timing:
 - ▶ Task 9.2.6 – Establish Performance Monitoring Procedure and scope –
 - ▶ Review of CAP tracking of FP deficiencies during transition – October 2005
 - ▶ Other items??

- Discussion of resources

NFPA 805 Pilot Planning Meeting Summarize Results

- Conceptual Observation Schedule
- Resources Identified