# Day In The Life Of A State Inspector

Gary Teel
Senior Safety Engineer

Who We Are?

What We Do?

Why We Do It?

#### **CALIFORNIA**

800 Miles long

160,000 Sq. Miles

230,000 State Employees

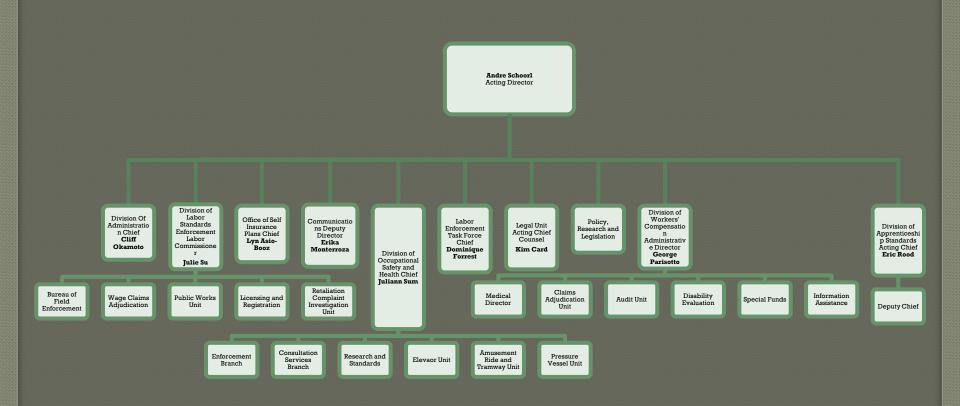
DIR – 2,800 Employees

Almost all workers in CA are protected by Cal/OSHA regulations (standards)

What workers are not covered?

- People who are self-employed
- Family members of farm workers who work on the family farm
- Federal employees working in California. These workers are covered by Federal OSHA

## Department of Industrial Relations (DIR)



#### 2018 Pressure Vessel Unit Organizational Chart

Don Cook Principal Engineer

**SSA** Jovita Boitano R. Miranda MST T. Mikkelsen OT A. Barwela OA

Sr Engineer Gary Teel

Sr Engineer **Nestor Garcia** 

Sr Engineer Micah Davidian

Sr Engineer **Leonard Tong** 

Associate Safety

Engineer

Bruce Sherman

Associate Safety

Engineer

Mohammed Akeffo

Associate Safety

Engineer

Mike Brush

MST Rosalinda Bates

MST Brenda Ongpauco

Associate Safety Engineer Tom Setterlund

Associate Safety Engineer Pong Gee

**Associate Safety** Engineer Wil Lacambra

Associate Safety Engineer Joe Mara

**Associate Safety** Engineer Ricardo Dyk

Associate Safety Engineer Vincent Bethel

Associate Safety Engineer Xiamin Fang

Associate Safety Engineer Dylan Smith

Associate Safety Engineer Mark Coelho

Associate Safety Engineer

**Associate Safety** Associate Safety Engineer Engineer Claudia Heflin

**Associate Safety** Engineer Jeff Anderson

Associate Safety

Engineer

Joshua Little

Associate Safety

Engineer

Eldrid Capalla

Associate Safety Engineer Hugo Gonzalez

Michael White

Pete Schoch Associate Safety

Engineer

Warren Goff

Associate Safety Engineer Jason Stokes

Associate Safety Engineer Anthony Dao

Associate Safety Engineer Mark Shandor

### Who are the State Inspectors?

## Pressure Vessel South

















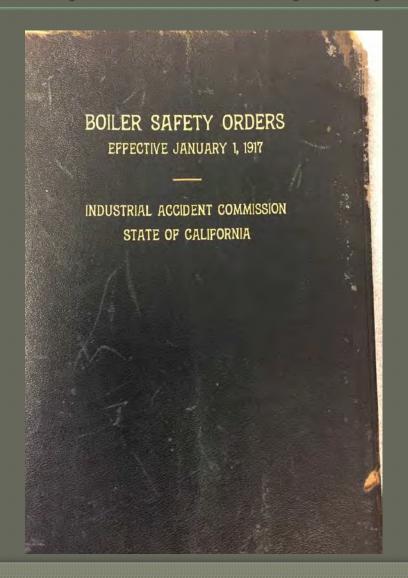
## PV Headquarters Oakland





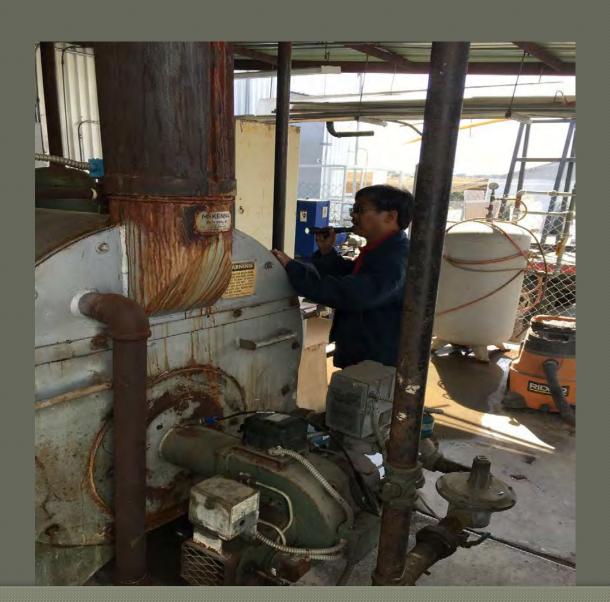
## How Long Has the DOSH Pressure Vessel Unit Been Around?

The State of California's Industrial Accident Commission issued the Boiler Safety Orders effective January 1, 1917.



What do We do?

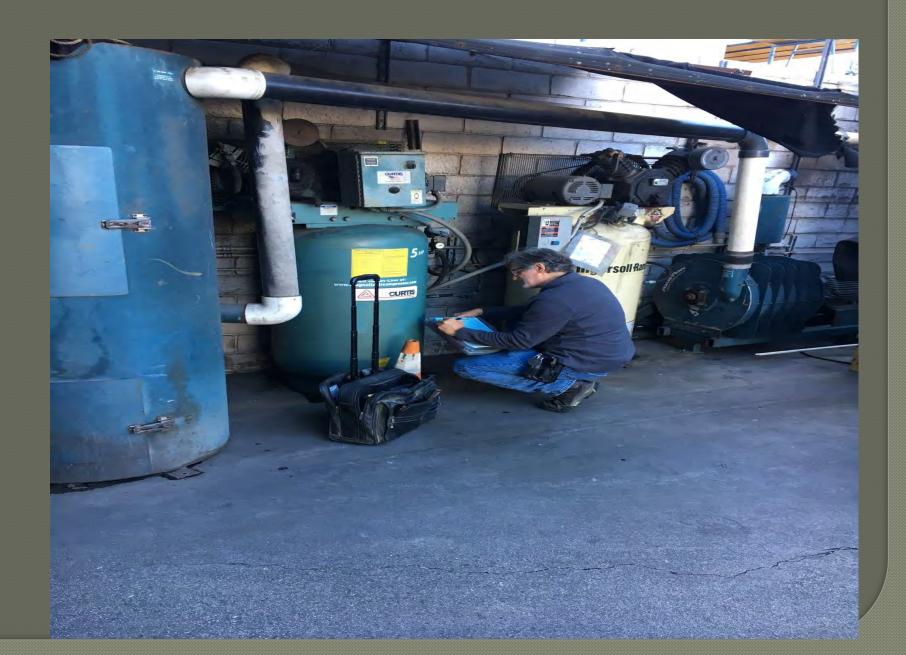
#### Inspect and Issue Operating Permits for Boilers



#### Instruct Owners of Possible Unsafe Conditions



#### Inspect and Issue Permits for Air Tanks





#### Perform Inspections and Issue Operating Permits for LPG Tanks





#### Vince Inspecting an LP Tank at a Winery in Santa Ynez









## Inspect CNG Facilities



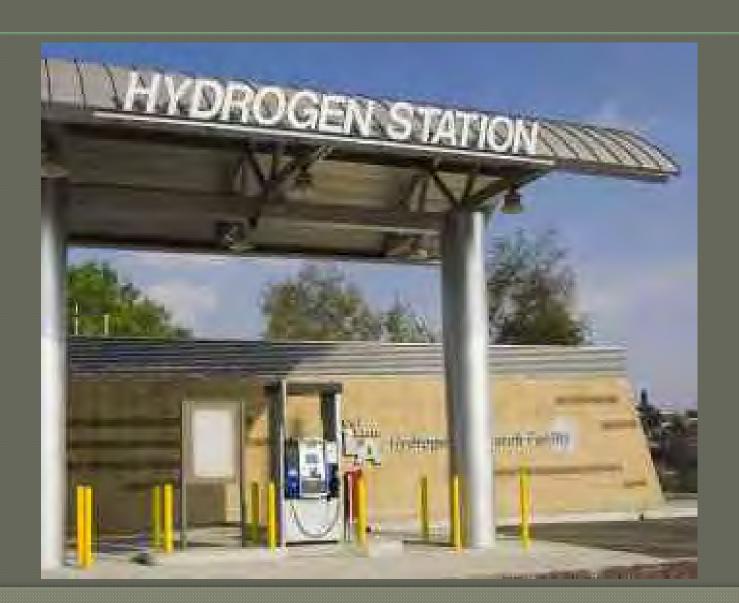
## Typical CNG Storage



## We Inspect H2 Fueling Facilities



## Currently 35 H2 Fueling Stations in CA with ~ 100 expected by 2020



## H2 Fueling Pump



## Bank of H2 Tanks



# H2 Bicycle



# H2 Cars



### How Many Permitted Items Are There in California?

What are Total Number of Boilers/Pressure Vessels with a Permit in 2017:

Boilers – 8,394

LPG Tanks – 36,207

Air Tanks – 165,855

State - 97,850

Insurance – 112,527

Total Number of Permitted Items – 210,367

## Other Than Inspecting Vessels/Boilers

What Else Do We Do?

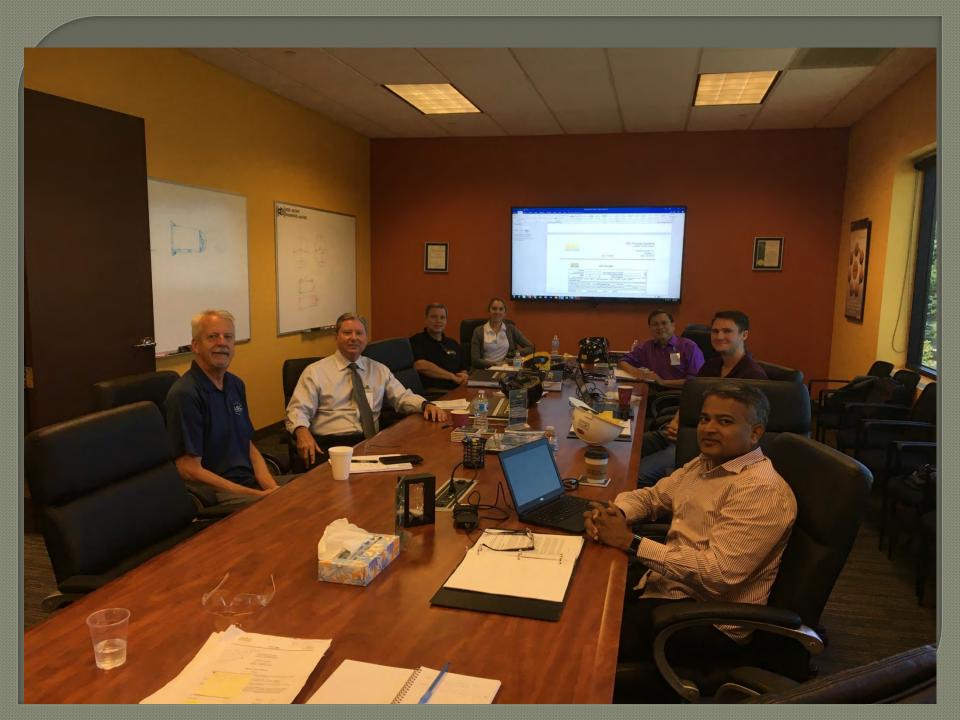






Perform R Stamp Reviews





# "R" Review at a DOT Facility



# Delfino



#### Review Non-Code Vessels For Acceptance as Equivalent To Code Space X Testing Vessel from Texas



# We act as Authorized Inspection Agencies (AIA) Here Performing an ASME Joint Review at Chevron El Segundo







Sit on Code Committees – Don Cook conducting the National Board Committee Meeting in San Diego



### Review Rerate Packages

Redman Equipment & Manufacturing Company

Job Number 16-742B

#### Rerate Package

For

Chevron - Richmond
Item Number HE-2220
Service: Purified Water Preheater
(Horizontal Heat Exchanger)

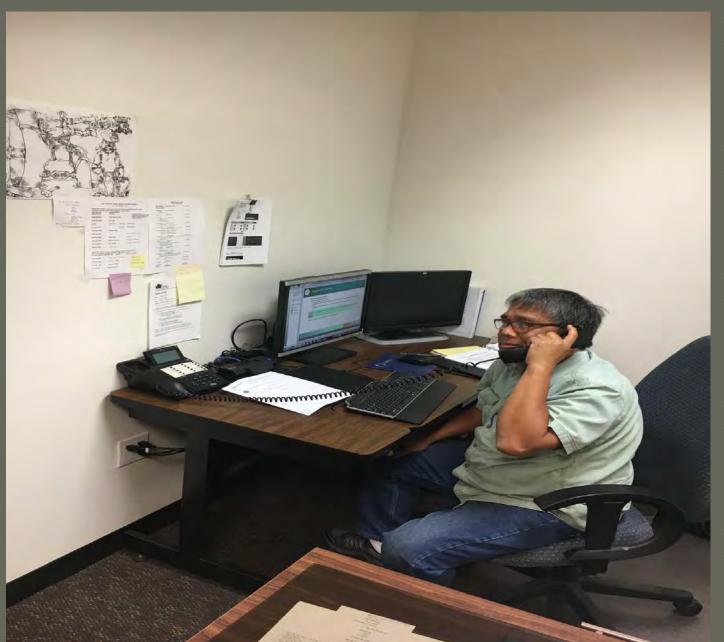
Manufactured by Bumwoo Engineering Co. S/N: 06PK007-01-02 NB#: 20 Built: 2008

Code of Construction:
ASME Section VIII-1, 2004 Ed., 2005 Add.

#### Review Fitness For Service Assessments



## Answer a Lot of Phone Calls



## **Enter Inspection Reports**



#### Work With Industries to Improve Their Quality Control Programs



#### Actually Go To The Field to Inspect/Evaluate Unusual Vessel Repairs





## Conduct Accident Investigations



### ExxonMobil Torrance Refinery ESP Explosion



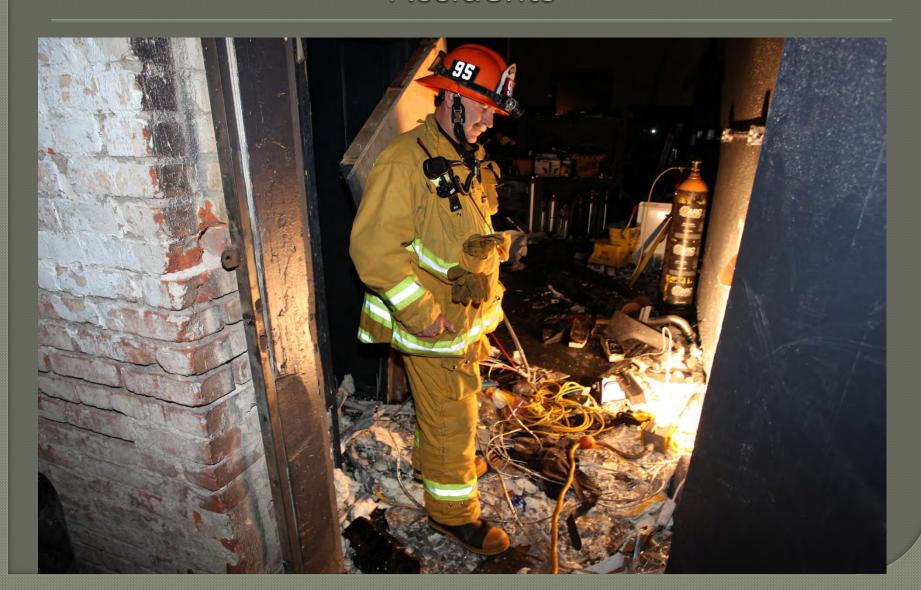
## Hyatt Boiler Explosion in Sand Diego



# Some accidents are very easy to determine the cause!



# Work with other Safety Agencies to Investigate Accidents



# Worked with NTSB and CHP to determine cause of CNG Tank Explosion



# Why Do We Do It?





## LPG Tank exploding at a Pallet Yard in Northern CA













