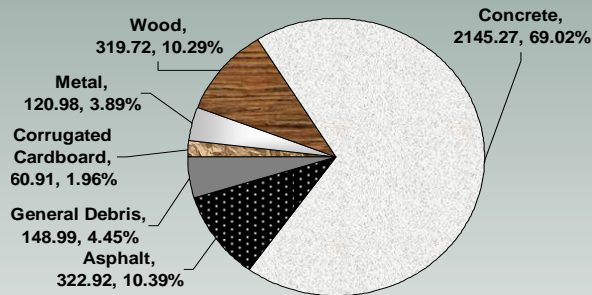


# Chemistry and Metallurgy Research Replacement (CMRR)

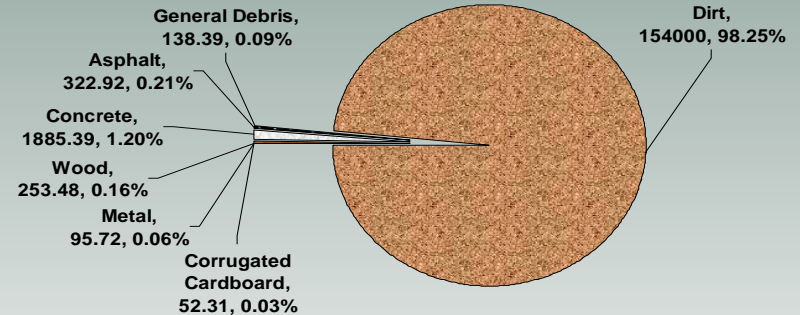
## Environment

### Materials Recycled Through June 2008 (tons, % of total)

Total Materials (excluding soil): 3,108.19 tons  
95.55% Waste Avoided



Total Materials (including soil): 157,108.19 tons  
99.91% Waste Avoided



### Pollution Prevention – Storm Water Erosion and Sediment Control



Turf reinforcement mat and rock for erosion protection and energy dissipation.



Grizzly track-out at construction vehicle access & egress for sediment transport control.

LALP-08-065



Silt saver at RLUOB storm-water discharge location for sediment control.



Georidge™ panels for runoff control and sediment transport.

## Environment

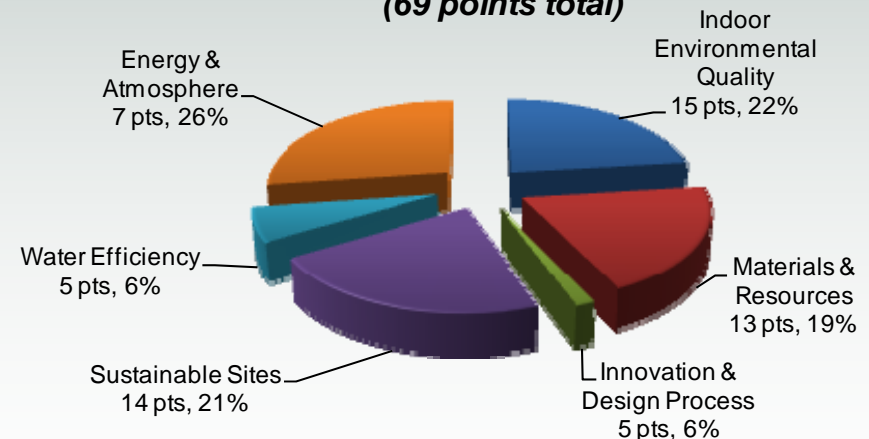
*The U.S. Green Building Council (USGBC) Leadership in Energy & Environmental Design (LEED™) Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.*

*RLUOB is the first of its kind to be registered with the U.S. Green Building Council. Due to its unique nature and design, the NF is the first of its kind to be in the process of registering with the U.S. Green Building Council.*

**LEED Certification Levels and CMRR Goals  
(69 points maximum)**



**LEED Point Categories  
(69 points total)**



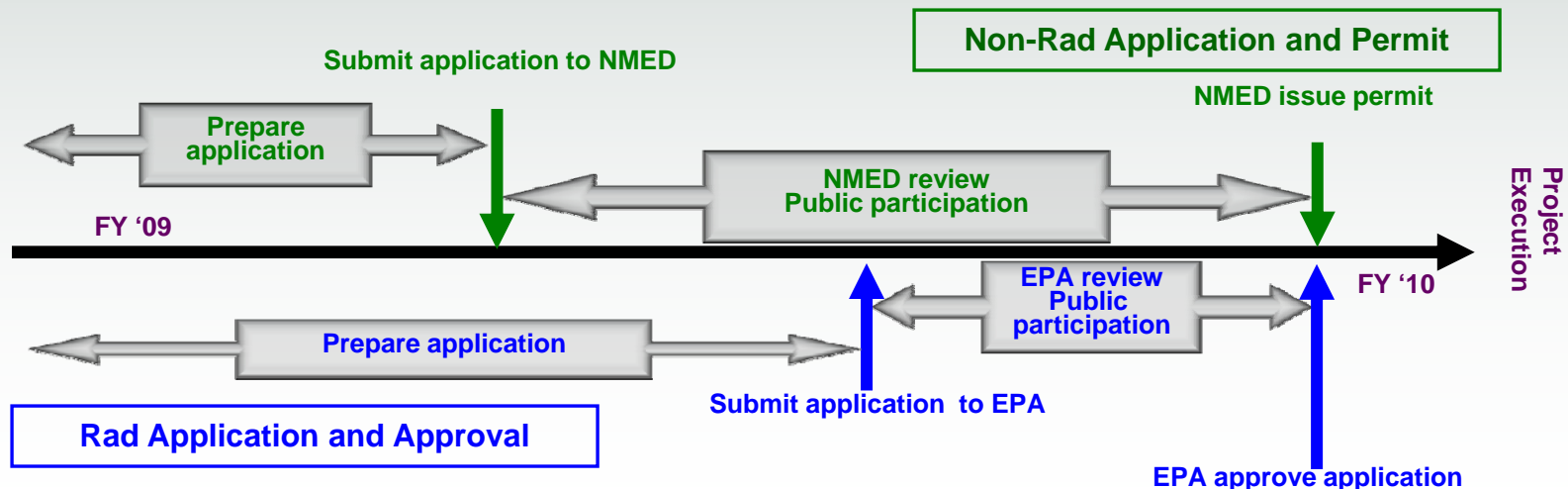
# Chemistry and Metallurgy Research Replacement (CMRR)

## Environment

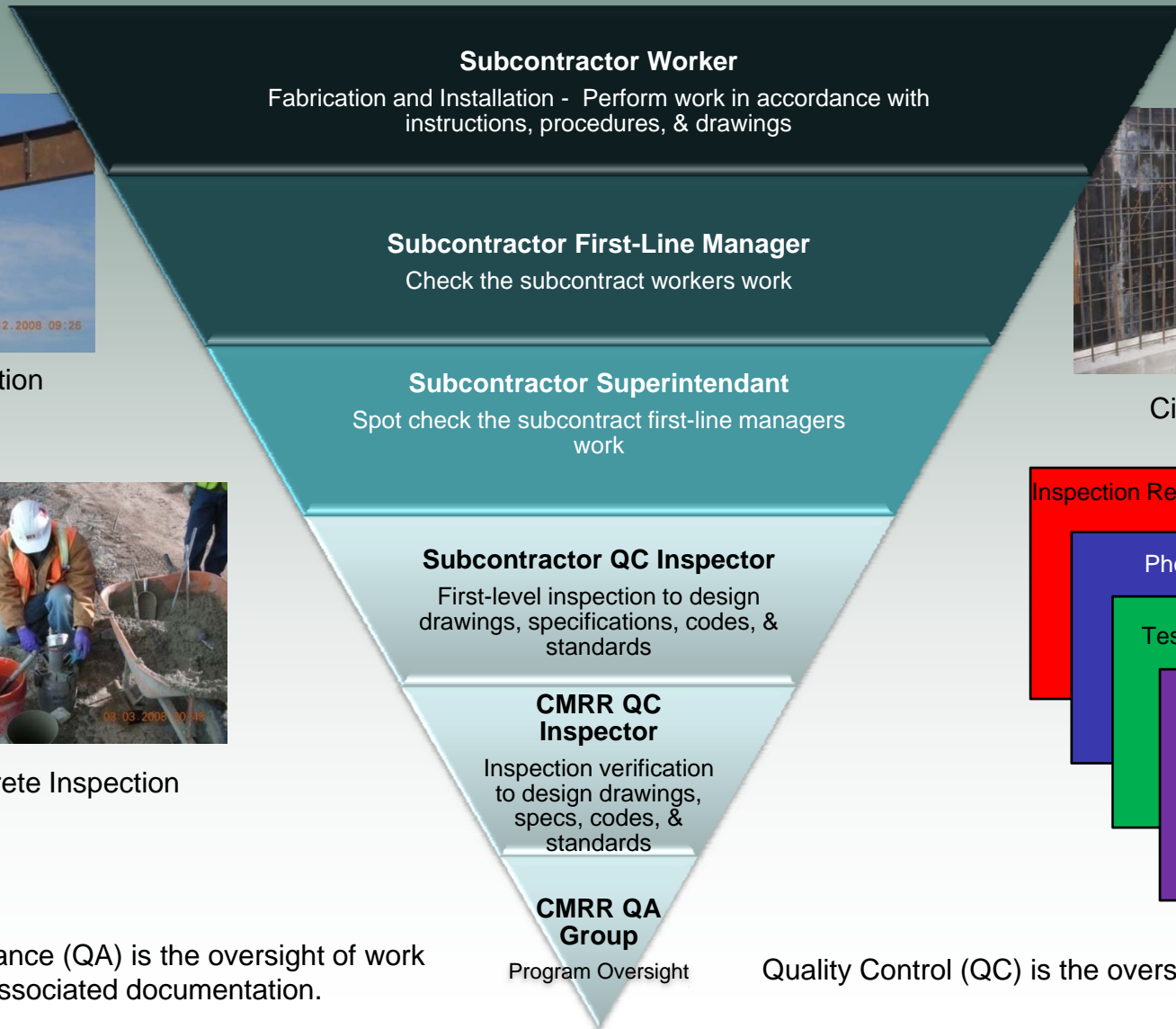
### *RLUOB Construction – Environmental Permit Status*

- **Clean Air Act (CAA)**
  - EPA: 40 CFR 61, National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Subpart H for radionuclides other than radon – Approval for pre-construction dated July 14, 2005.
  - NMED: 20.2.72 NMAC Construction Permit for construction and operation of CMRR Phases A and B in accordance with 40 CFR 60 Standards of Performance for New Stationary Sources – Permit No. 2195N issued September 16, 2005. Permit Revision 2195NR1 issued December 20, 2007.
  - Interested Parties Settlement Agreement: Requires public meeting on RLUOB air permit every six months. Signed September 15, 2005.
- **Clean Water Act (CWA)**
  - EPA: Notice of Intent to discharge under the NPDES Construction General Permit filed by UC, LANS, and ACCLP.
  - Storm Water Pollution Prevention Plan (SWPPP): On file and updated, when necessary.
- **Resource Conservation and Recovery Act (RCRA) – Includes RLUOB and NF**
  - NMED: Approval to proceed with construction prior to operating permit issuance dated February 21, 2007.

### *Nuclear Facility Construction – Air Permit Timeline*



## Quality Assurance



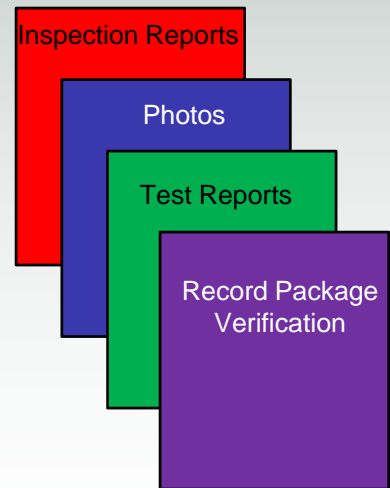
Welding Inspection



Civil Inspection



Concrete Inspection



Quality Assurance (QA) is the oversight of work and associated documentation.

Program Oversight

Quality Control (QC) is the overseer of work done.

# Chemistry and Metallurgy Research Replacement (CMRR)

## Safety

### *CMRR Project Safety Performance January 2007 - August 2008*

#### *People-Based Safety*

- No lost time accidents in over 975,000 hours worked
- People-based safety program – *Daily Observations Getting Safer (DOGS)*
  - Craft-owned & maintained;
  - Team includes carpenters, operators, laborers, ironworkers, and electricians;
  - Over 12,000 safety observations.
- *Project Zero Accident Team (ZAT)*. Comprised of management from ACCLP, CMRR, NNSA, and craft representatives.
  - Safety incentives and recognition for crafts;
  - Weekly site safety walk downs with craft and management;
  - Safety leadership workshops for craft and managers;
  - Safety review of 3-week look-ahead schedule.



DOGS and Zero Accident Team



Steel Erection "Topping Out"  
(Fir tree symbolizes "Safe Completion")

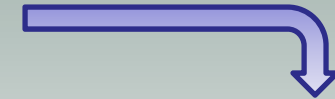
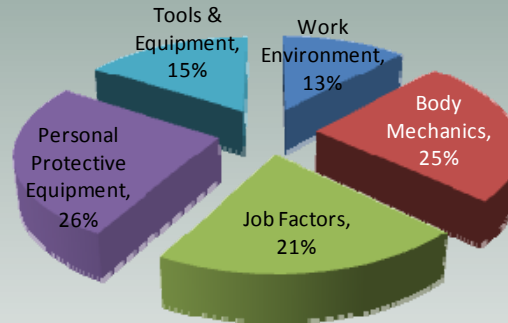


Safety Meeting

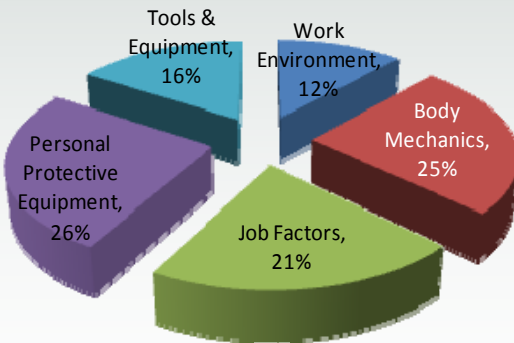
## Safety

### Safe & At-risk Behaviors

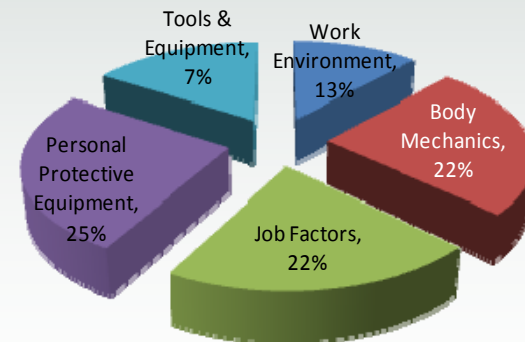
Total observations = 12,593



Total safe observations\* = 11,992  
95%



Total at-risk observations\*\* = 601  
5%



#### Legend

\*At-risk observations: work behaviors that can be changed to improve safe working.

\*\*Safe observations: work behaviors that are performed safely.

# Chemistry and Metallurgy Research Replacement (CMRR) Construction

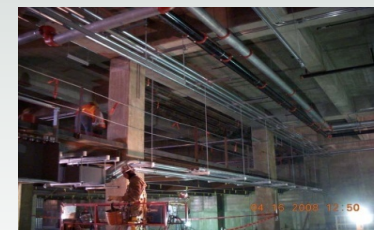
## *RLUOB Construction Scope*

### Laboratory - 19,500 sf of Radiological Space

- Capability for 26 Lab Modules
- Laboratory spaces are designed to be flexible and modular
- 4 Lab Modules fitted out in ACCLP contract

### Centralized Utility Building - (RLUOB and Nuclear Facility)

- Skid-mounted water treatment system
- Skid-mounted unit to produce de-ionized water
- Packaged boilers to produce heating water
- Chillers to produce cooling water
- Thermal energy (ice) storage unit
- A skid-mounted compressor system to produce compressed air
- Standard electrical power with diesel generated back up supply
- Specialty Gases: argon, helium, nitrogen, regen, & P-10



## Construction

### *RLUOB Construction Scope*

Office space for 350 workers

Training Facility and 46 Trainer offices

- 4 classrooms capable of holding 25 trainees
- Space for 2 simulated Labs

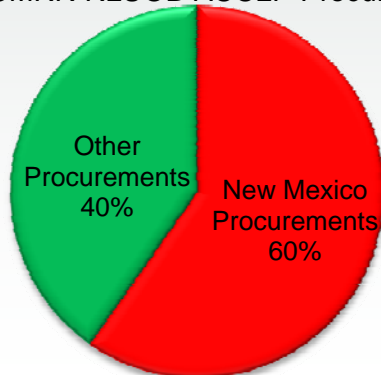
Facility Incident Command Center & Emergency Response Capabilities

Facility Operations Center

Construction Bulk Commodities

- |                                  |                     |
|----------------------------------|---------------------|
| ➤ Structural Concrete            | 16,800 cubic yards  |
| ➤ Structural Steel               | 1,010 tons          |
| ➤ Electrical Conduit and Raceway | 197,000 linear feet |
| ➤ Electrical Wire and Cable      | 412,000 linear feet |
| ➤ Process Piping and Tubing      | 50,000 linear feet  |
| ➤ Sheet Metal Duct Work          | 8,000 linear feet   |

New Mexico Procurements vs.  
other CMRR RLUOB ACCLP Procurements



New Mexico Subcontracts vs.  
other CMRR RLUOB ACCLP Subcontracts

