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Chemical Management Exposure Control Waste Minimization Disposal

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EQO-Industrial Hygiene

October 2007

Chemical Management

Chemical Tracking

MSDS

Project Design Reviews

Emergency Preparedness

Program Reviews Internal/DOE

Fire/Hazardous Material Incident Response

Air & Water Permits

Walkthrough Inspections

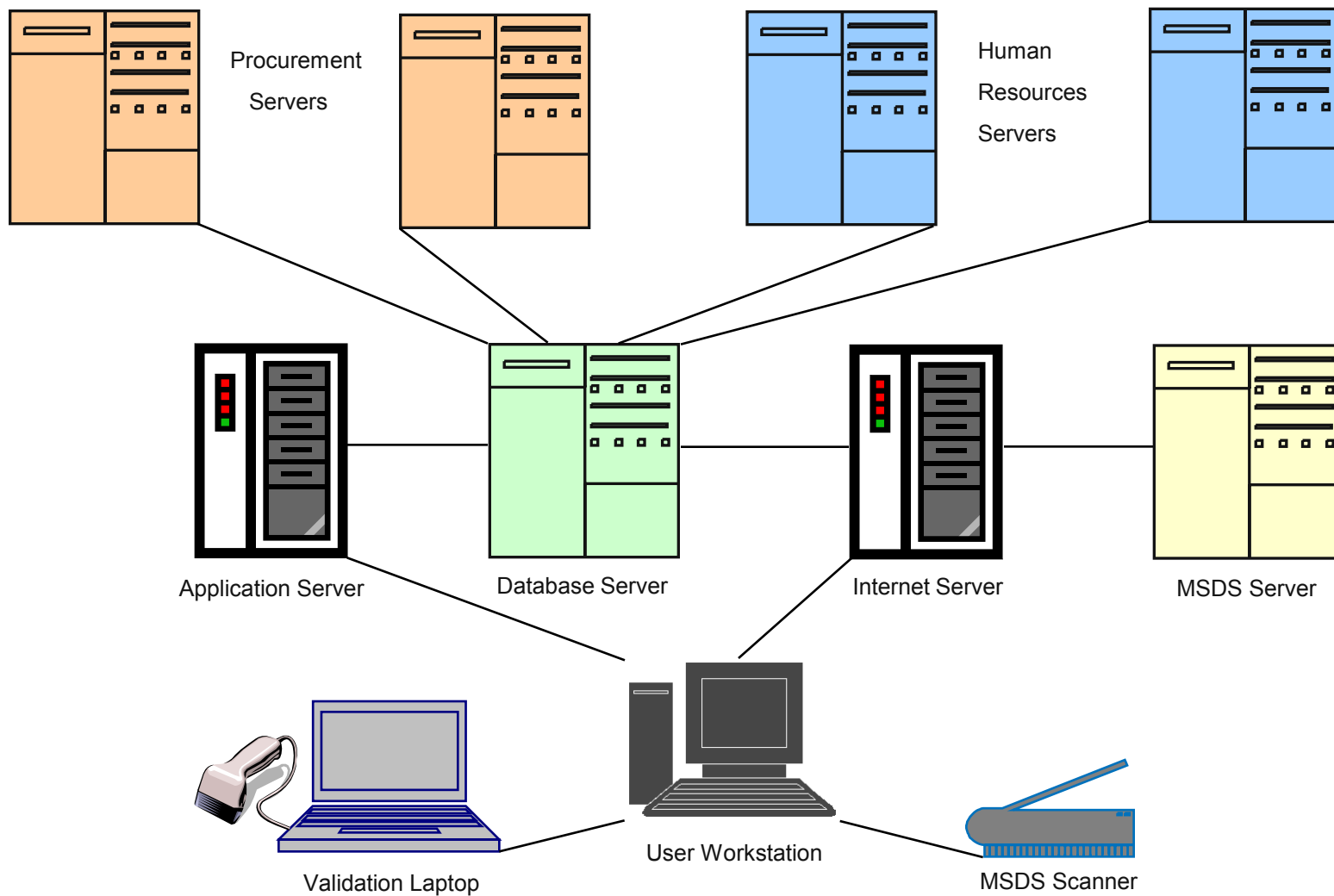
Recycling

Workplace Exposure Monitoring

Chemical Hygiene Plans

Waste Minimization/Disposal

CHEMICAL MANAGEMENT SYSTEM ARCHITECTURE



Chemical Management System Features

- **Procurement Generation of Inventory Records**
- **Chemical Receiving with Barcode Assignment**
- **MSDS Link to Inventory**
- **Division Records Maintenance**
- **Periodic Shelf Inventory**
- **Records Transfer-Employee Termination**

Chemical Management System

■ **Standard Reports**

■ **Chemical Inventory**

- *Name and location*
- *Surplus chemicals*

■ **Expiration Dated Substances**

■ **Hazardous & Regulated Chemicals**

- *Carcinogens*
- *SARA and TRI chemicals*
- *Ozone depleting substances*
- *Hazardous pollutants*

Chemical Exposure Control

- **Experiment Safety Reviews**
- **Construction Plan Reviews**
- **Division Chemical Hygiene Plans**
- **Inventory Reviews/Follow up**
- **Workplace Exposure Monitoring**
- **Engineering Controls/Maintenance**

Waste Minimization

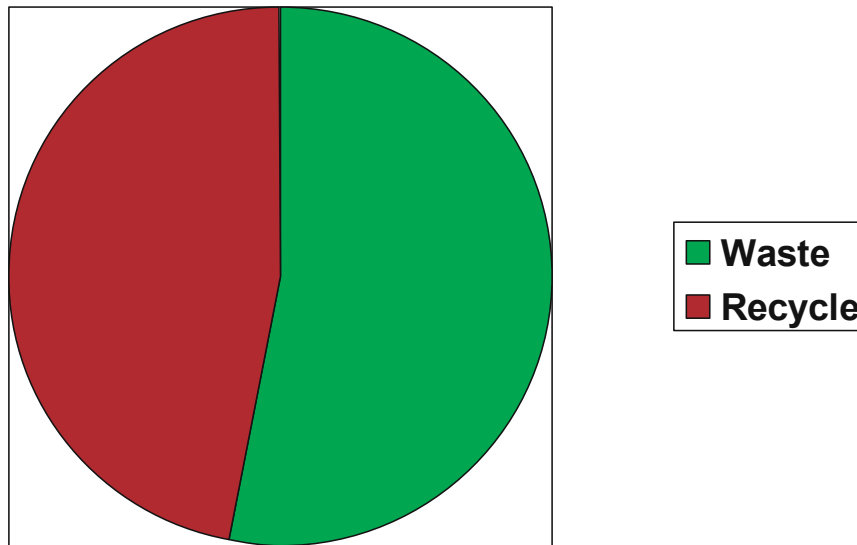
■ Pollution Prevention Program

Main Categories

- Office Paper
- Plastic and Glass
- Demolition Debris
- Metals
- Computer Components
- Oils
- Batteries
- Transparencies
- Front End / Roll Off Waste
- Toner Cartridges
- Athletic Shoes

Waste Minimization

- **Pollution Prevention Program**
- **Solid Waste Recycling FY 2007**
 - 47% of 1,000 metric tons



Pollution Prevention Program

■ **PP Opportunities / Evaluations**

- Solvent Recycler
 - *350 gallons / year*
 - *Equipment payback: 2 months*
- Gate Passes
 - *5,000 / yr*
- Reinststate Argonne Chemical Exchange System (ACES)
- Disposable Plastics

Argonne Chemical Exchange System

■ ACES

- Designate available chemicals in CMS
- Search CMS prior to purchase
- Transfer chemicals
- Update Chemical Management System
- Not currently funded

Chemical Waste Disposition

- **Laboratory Waste Handling Manual**
- **Nuclear Operations Division/Waste Management Support**
- **Centralized Waste Processing, Packaging and Disposal**

Unneeded Materials and Chemicals UMC Program

- **Site wide Wall to Wall Inspection**
- **Plan staging areas, each major building**
- **“Clean Sweep” removal**
- **4 year plan for disposition of UMC**
- **Includes recycling / reuse where feasible**

Unneeded Materials and Chemicals UMC Program

■ **Chemicals**

- 115 gallons

■ **Equipment / Supplies**

- 100 plus items

■ **Accelerator Equipment**

- 23 items

■ **Computers, Printers**

- 36 items

UMC Nuclear Materials

- **Rad Contaminated Chemicals**
- **Excess Rad Material**
- **Uranium - shipped to Y12**
- **Various isotopes – shipped to ORNL**
- **Small sources – Radium materials – LLW**
- **Neutron isotopes – WIPP**
- **Scrap metal from controlled areas**

