

Trove's Project Experience

Trove International LLC

Trove Strengths

- Trove focuses its strengths toward fulfilling the Client's objectives efficiently and cost effectively.
- Trove brings significant international experience in a complimentary manner that creates value for its Clients.
- Trove's initial international experience was gained through prior employment with major international companies, well recognized for their global development expertise. (like, El Paso, Enron, Northern Engineering, Dresser Industries, General Electric, Ruston Gas Turbines)
- Our executives and staff have first hand knowledge and experience at developing, constructing and operating power generation assets in developing countries as witnessed by their respective experience lists presented herein below.
- Since 2004 Trove has performed work in Iraq, Nicaragua, Bangladesh, China, Guam, Dominican Republic, Panama, El Salvador and the USA.

Where is the Value for the Client?

- Broad international experience, in depth knowledge of power generation and verifiable results deliver VALUE to the client.
- Large engineering and construction firms, though capable and experienced, also have large overhead costs to maintain their international offices and staff.
- By contrast, Trove possess the same international capability and experience but is not burdened with large overhead costs that add nothing to the Client's value.
- Trove's executives and senior staff will be directly involved in the day to day design, construction and operational activities of the project.
- Executives of large international firms simply cannot devote their time beyond the initial sales activities. Thus the client really gets the second team to implement their project.
- We have recent international experience that demonstrates our capability to manage power projects in developing countries (Iraq is an example) utilizing the "fast track" modality. Successfully completing construction and rehabilitation in an extremely hostile and challenging environment.

Trove's Support Role

- Trove's role will be to design the plant, from concept through detailed engineering.
- Trove will provide construction management services to assure the plant is built in accordance with the plans and specifications and to verify the quality of construction for the Client.
- Trove will provide project management services that assure the construction is completed according to the project schedule.
- Trove will develop and implement a facility specific Operator and Maintenance training program and qualify all operating personnel for the Client.
- Trove can provide the Client with long term Technical Services Support through a contractual agreement wherein Trove technicians would be on call 24/7 to respond to emergency maintenance issues via an internet link.
- All project drawings, specifications and engineering data will be available to the Owner during the design, construction and operation of the plants via a password protected internet link to Trove's server..

Trove's History

- Trove International LLC was formed in February of 2004 by former senior executives of Enron Corp & El Paso Energy Corp.
- Trove brings together the unique knowledge base of those senior executives from the perspective of their corporate experience in the development of power plant infrastructure on a global scale.
- Trove's initial contract was to support the mission critical reconstruction of Iraq's power infrastructure as described later in this document.
- Subsequent contracts included: due diligence in the acquisition of an 84 MW power plant in Guam, development of a 160 MW GTCC plant in Bangladesh, a mini-hydro plant in Nicaragua, detail design of a coal gasification project in China, due diligence for the acquisition of 5 thermal plants in Central America & Caribbean basin as well as technical support for the Independent System Operator for the PJM regional territory, a bio-fuels project development and small refinery project in Texas.

Experience List

- Trove's executives and staff experience base has been accumulated through prior employment with major corporations such as:
 - General Electric Co
 - Hawker Siddeley Power Engineering
 - Ruston Gas Turbines, Inc.
 - El Paso Energy Corp.
 - Northern Engineering Co
 - Enron International Corp.
 - Power Systems Engineering Corp
 - Dynegy Corp
- Trove employees have implemented power projects in over 20 countries.

Trove's Partial Experience List - Projects

- Panama – 355 MW Bahia Las Mina
- Nicaragua - 70 MW Corinto
- Guatemala – 124 MW Puerto Quetzal
- Dominican Republic – 185 MW Puerto Plata
- Philippines - 105 MW Batangas
- China – 15000 BOPD Refinery Zhanjiang
- England– 1,840 MW Teesside
- Massachusetts – 150 MW Milford
- Texas – 198 MW Big Spring
- 205 MW Paris
- Iraq – 40 MW Nasiriyah
- California – 56 MW Sunlaw - Vernon
- 52 MW Shell -Bellridge
- 48 MW Exxon -OST
- 24 MW O'Brien – Artesia
- 30 MW Catalyst - Bakersfield
- New Jersey – 56 MW Newark
- 72 Parlin
- Connecticut – 42 MW – Hartford
- Colorado – 1.75 MW - Dillon
- Miezhong Wan Power Project. Peoples Republic of China.
- Mendoza Power and Light Co. Mendoza, Argentina.
- Trinidad Power and Light Co. Trinidad
- Genor Project. Guatemala.
- Vendolah Plant, Florida Power Corp. 550 MW
- Hardee Plant, Florida Power Corp. 425 MW
- Lyondell Power Project, Houston, Texas. 475 MW
- Macae Power Project, Brazil. 700 MW
- SengKang Power Project, Indonesia. 165 MW
- Kabirwala Power Plant, Pakistan. 150 MW
- Fife Power Project, Scotland. 55 MW
- Teesside Power Project, U.K. 1,840 MW
- Cardinal Power Plant, Canada. 150 MW
- Pacora Power Plant, Panama. 50 MW
- Haripur Power Plant, Bangladesh. 90 MW
- Iraq – Mullah Abdullah Rehabilitation 100 MW
- Iraq – Mosul Rehabilitation 60 MW
- Kentucky, Compressor Station 20 MVA, 138 KV Substation for electric compression project. (4VFDs @ 4500 HP)
- Texas, Compressor Station 25MVA, 138 KV Substation for electric compression project. (1 VFD@ 25,000 HP)
- New Mexico, Electric Compressor Stations 20 MVA, 115 KV Substation for four (4) separate gas-gathering systems.
- Mississippi, Grenada. Electric Compressor Station 15 MVA, 161 KV Substation. Two (2) 4500 HP Centrifugal Compressors (VFDs)

Trove's Power Plant Experience Includes

- Gas Turbine-Generators manufactured by:
 - General Electric Co.
 - Siemens Westinghouse
 - ABB
 - Dresser Rand
 - Solar
 - Ruston Gas Turbines
 - Stewart & Stevenson
 - Hitachi
 - Pratt & Whitney
- Diesel Engine – Generators by:
 - Wartsila
 - MAN
 - Caterpillar
 - Mitsui
 - Sulzer

Trove's Experience Includes

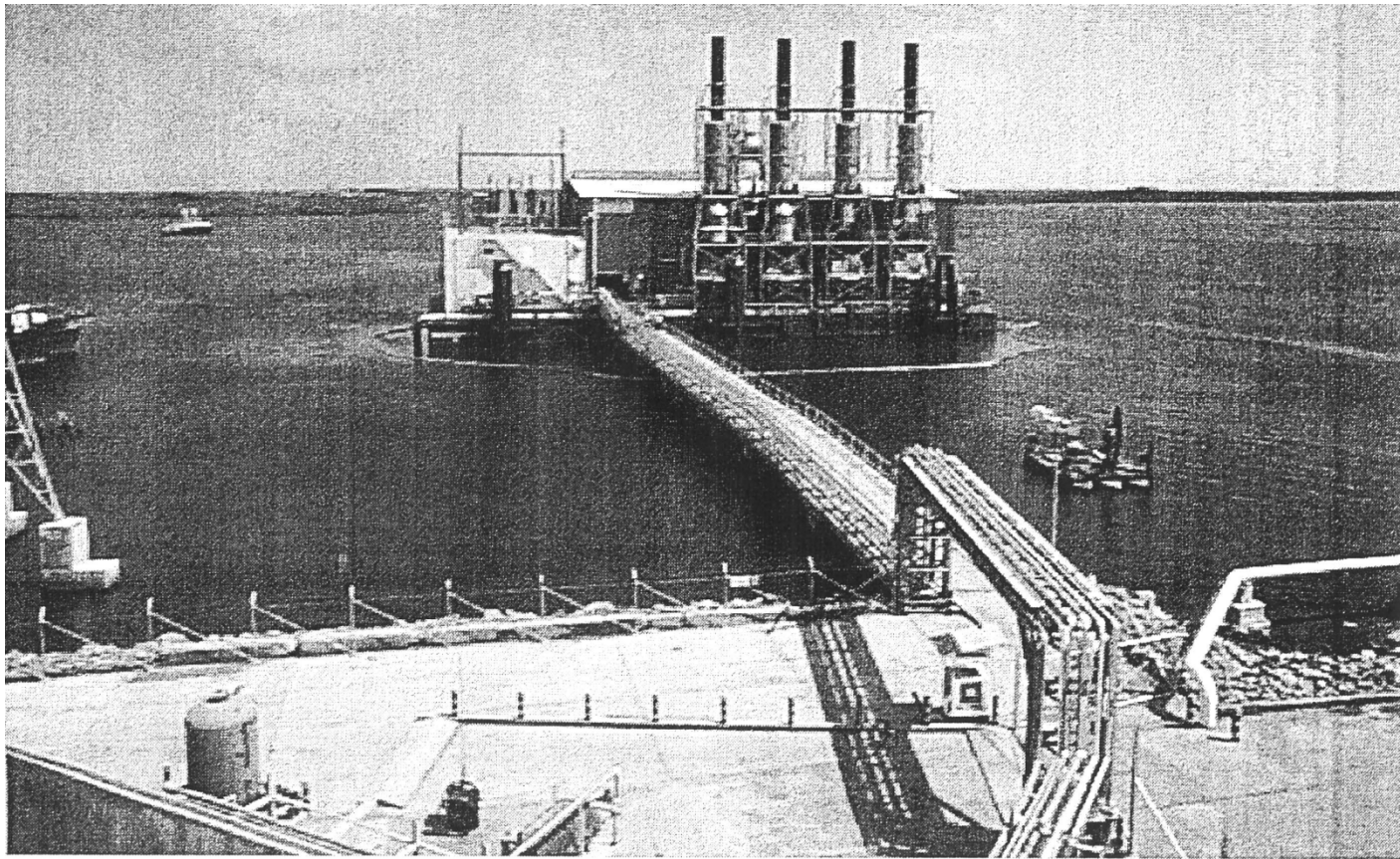
- Power Plant conceptual & detailed engineering design.
- Multiple fuels: crude oil, distillates, natural gas, Petcoke, coal, Naphtha, LNG, Syngas, Municipal Solid Waste, Bio-fuels.
- Hydro, Thermal, Solar and Wind technologies.
- Development of projects in over 20 countries.
- High voltage interconnection – grid studies.
- Pipeline and electric transmission line design and construction.
- Permits, governmental approvals, regulatory compliance.
- Operation & Maintenance Training Programs
- Multilateral finance instruments
- Contractual agreements for power sales, fuel purchase, construction, long term O&M and electrical interconnections.



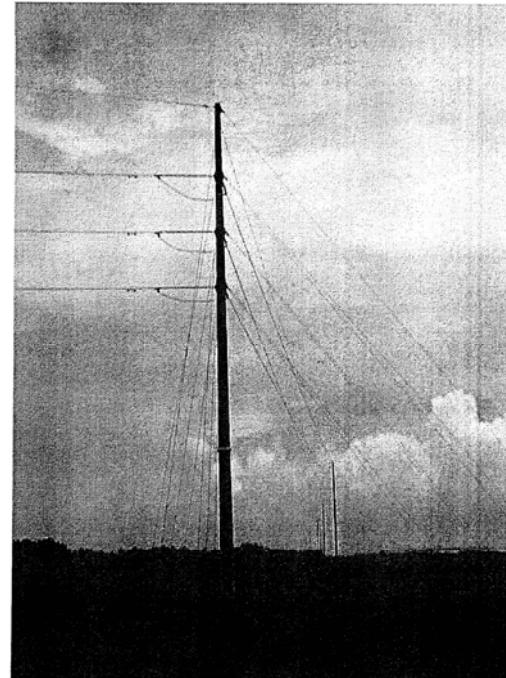
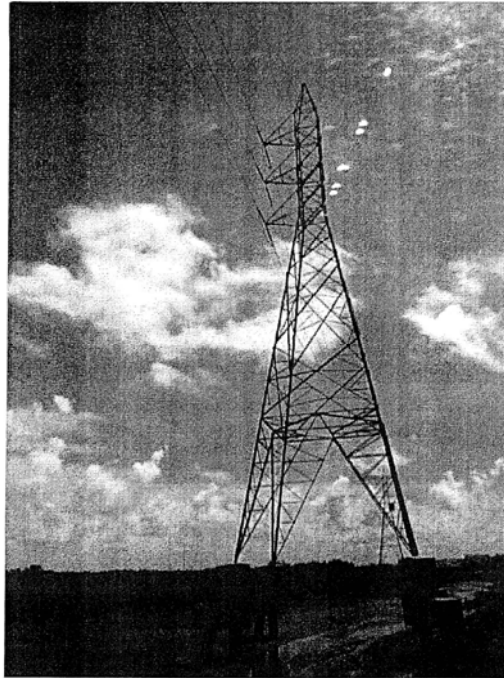
1,840 MW GTCC – Teesside, England

Trove International LLC Experience

70 MW Power Barge - Nicaragua



138 Kv Transmission Line - Nicaragua



PROJECT INCLUDES A 34 MILE, 138 KV TRANSMISSION LINE FROM THE BARGE TO LEON SUBSTATION PLUS A SUBSTATION BAY



Bahia Las Minas Power Plant – Panama

355 MW



Mission Iraq

- Trove engineers provided 7 day a week support to the field teams, defining problems, procuring parts, engineering solutions and working through ever changing requirements concluding with the rapid return to service of long idled critical electrical systems.

Mission Iraq

- Trove supported key installations in:
 - Mosul
 - Mullah Abdullah
 - Nasiriyah
- Trove supported the installation of new power generation as well as the rehabilitation of 30 year old machines.

Mission Iraq

- Trove engineers supported the rehabilitation of power plants devastated by war and decades of poor maintenance.



The Mullah Adbullah Gas Power Plant in central Iraq is a refurbishment project to support the country's electrical grid.
(PMO Wire Service Photo)

Rehabilitation of Iraqi Power Plant



Installing a “new” Gas Turbine in Iraq



Trove International LLC Experience

Refurbishing a Gas Turbine under Difficult Circumstances



Frame 5 in Mosul, Iraq

Iraq Power Plant Construction



Trove International LLC Experience

Frame 6B for Iraq

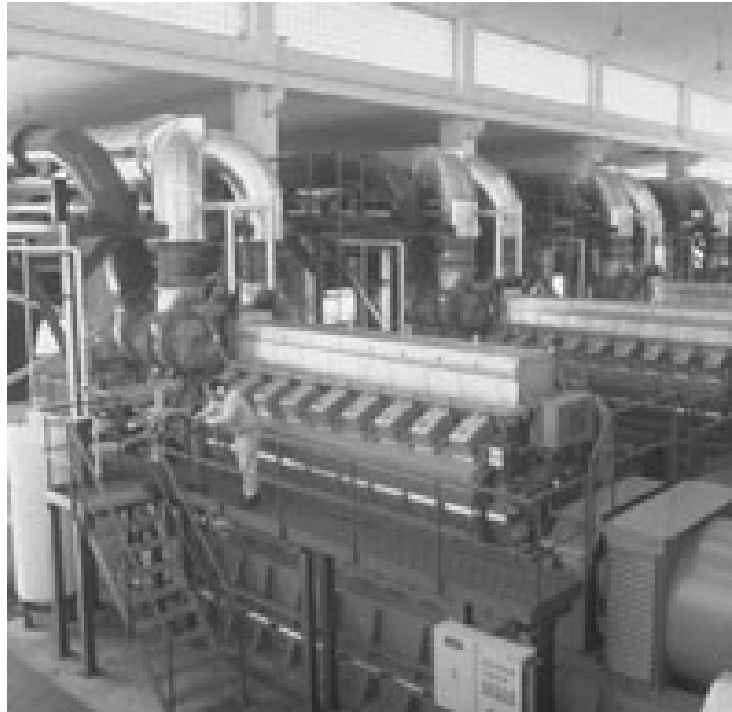


Factory Refurbished Gas Turbines



GE Fr 7B being refurbished to as new

Typical Power Project - Philippines



Medium Speed 18V46 Diesel Electric

Typical Refinery Project



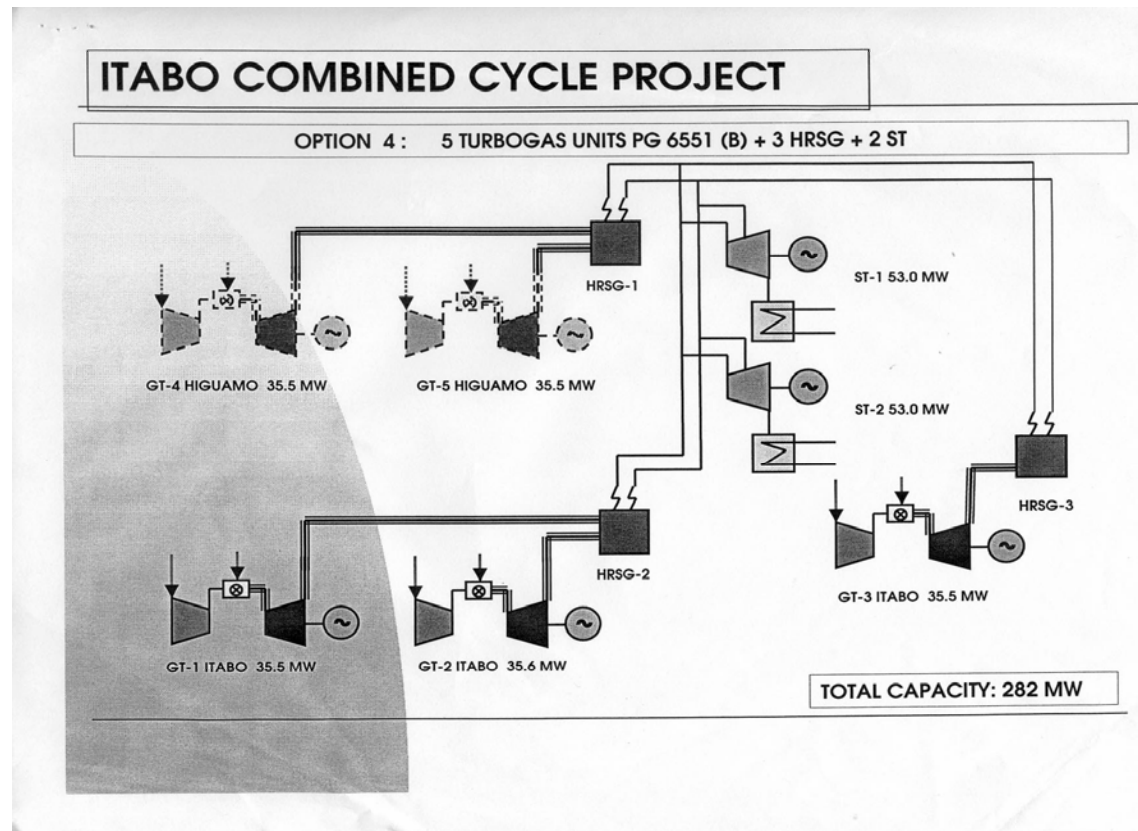
Crude Oil Process Plant Design

Trove International LLC Experience

Aerial Photo of the Plant



Typical GTCC Project



Conversion of GTSC to GTCC

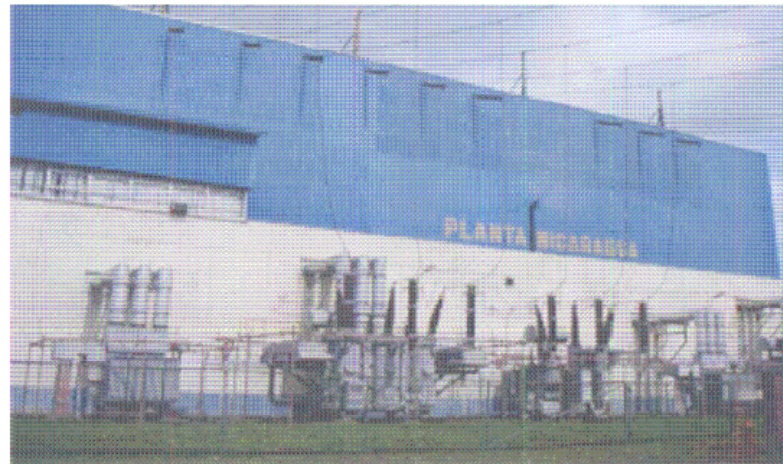


GE Frame 6B Plant to be Relocated

Trove International LLC Experience

Planta Nicaragua Due Diligence

TECHNICAL REVIEW AND ASSESSEMENT REPORT

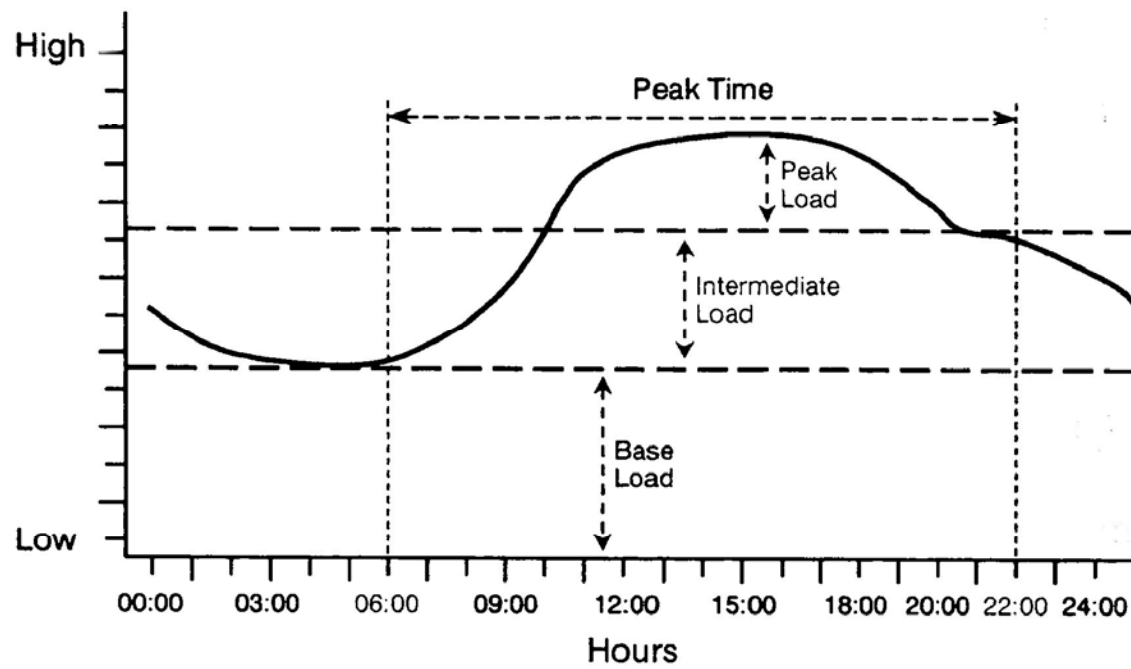


Trove International LLC

Trove International LLC Experience

Design Criteria

Typical Demand Profile



Operation & Maintenance

Training Program

Training Program Curriculum

- Training consists of a series of classroom lectures, with audio/visual aids, using a proprietary facility specific text lasting approximately 4 weeks.
- The curriculum will cover the fundamentals of gas turbine and synchronous alternator design and operation as well as balance of plant equipment.
- The power plant will be divided into systems. Each system studied individually and then in the context of the whole plant.
- Classroom instruction will be followed by plant visits to similar facilities installed and operating.
- Trainees receive 10 days of “on-the-job-training” at the actual power plant in Nigeria immediately prior to start-up.
- The trainees will be tested periodically throughout the training program to measure their skill levels, retention of information and qualification to operate.
- The trainees will be the operators used during plant start-up.
- Each trainee that satisfactorily passes the minimum requirements will be awarded a certificate of qualification as an operator.

State of the Art Training Facilities



Trove International LLC Experience

Training Methodology

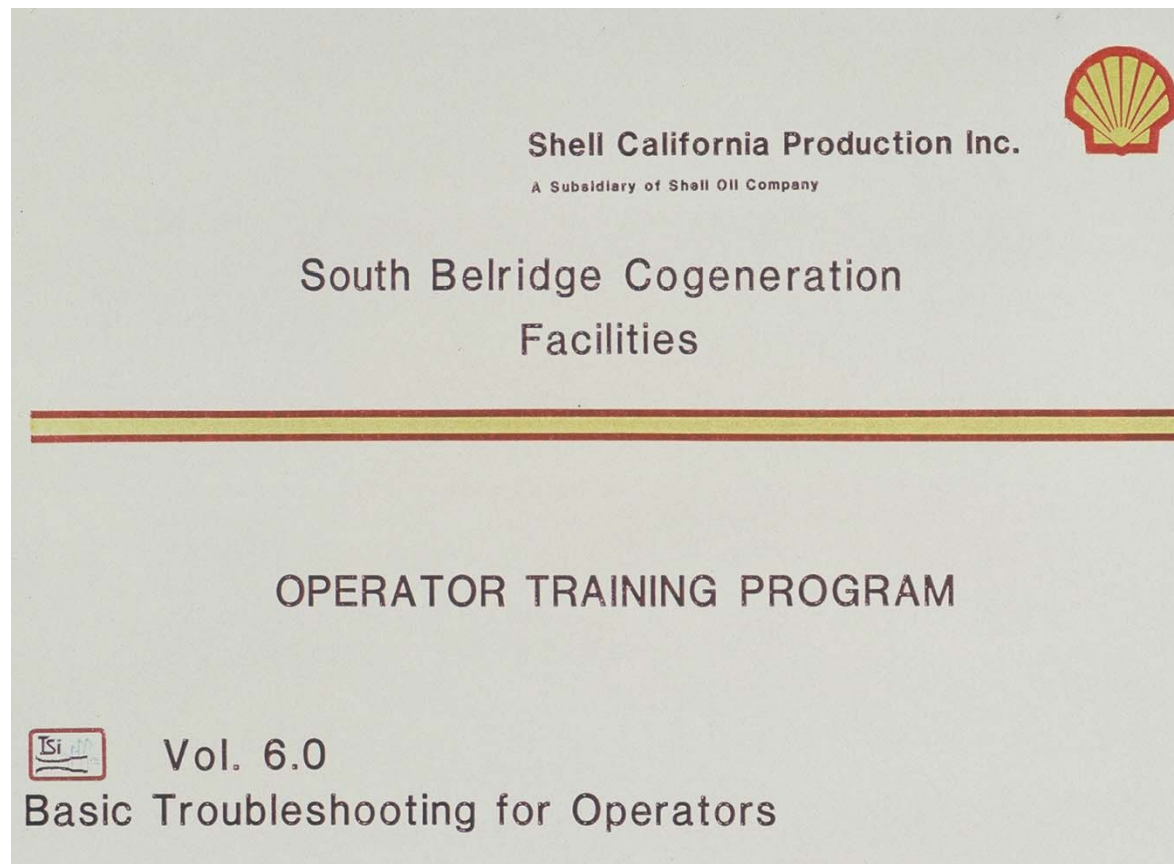
Utilizes Interactive Human Machine Interface



Trove International LLC Experience

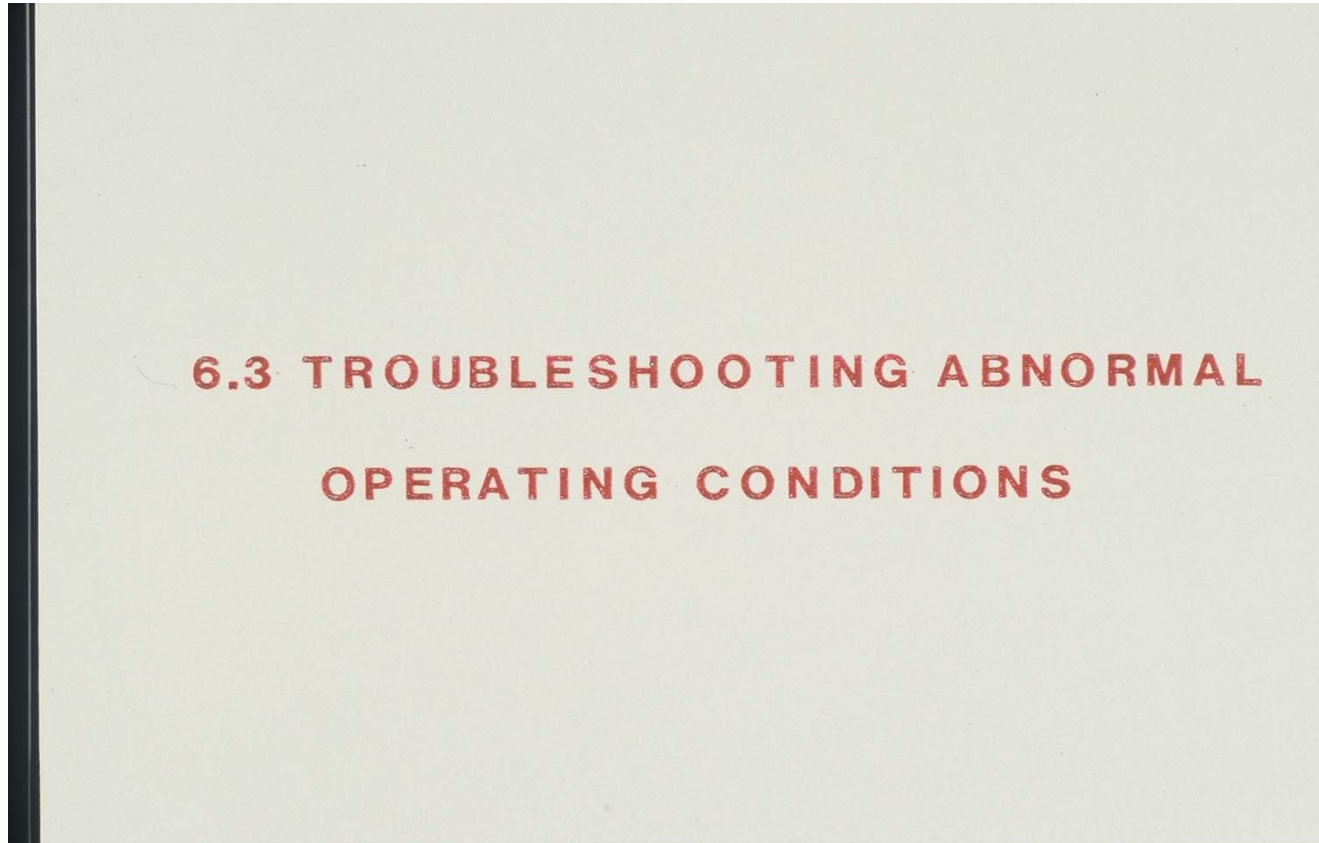
Training Program Example

Power Plant



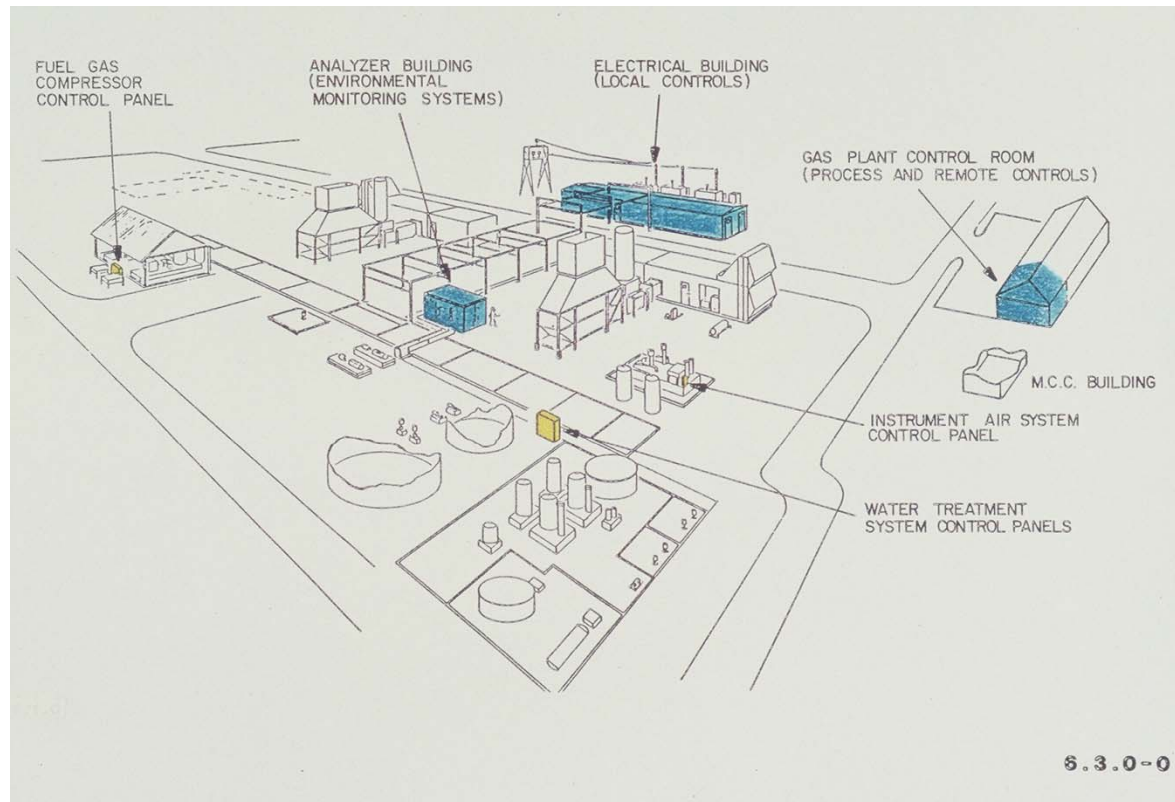
O&M Training Program Example

Volume 6 - Troubleshooting



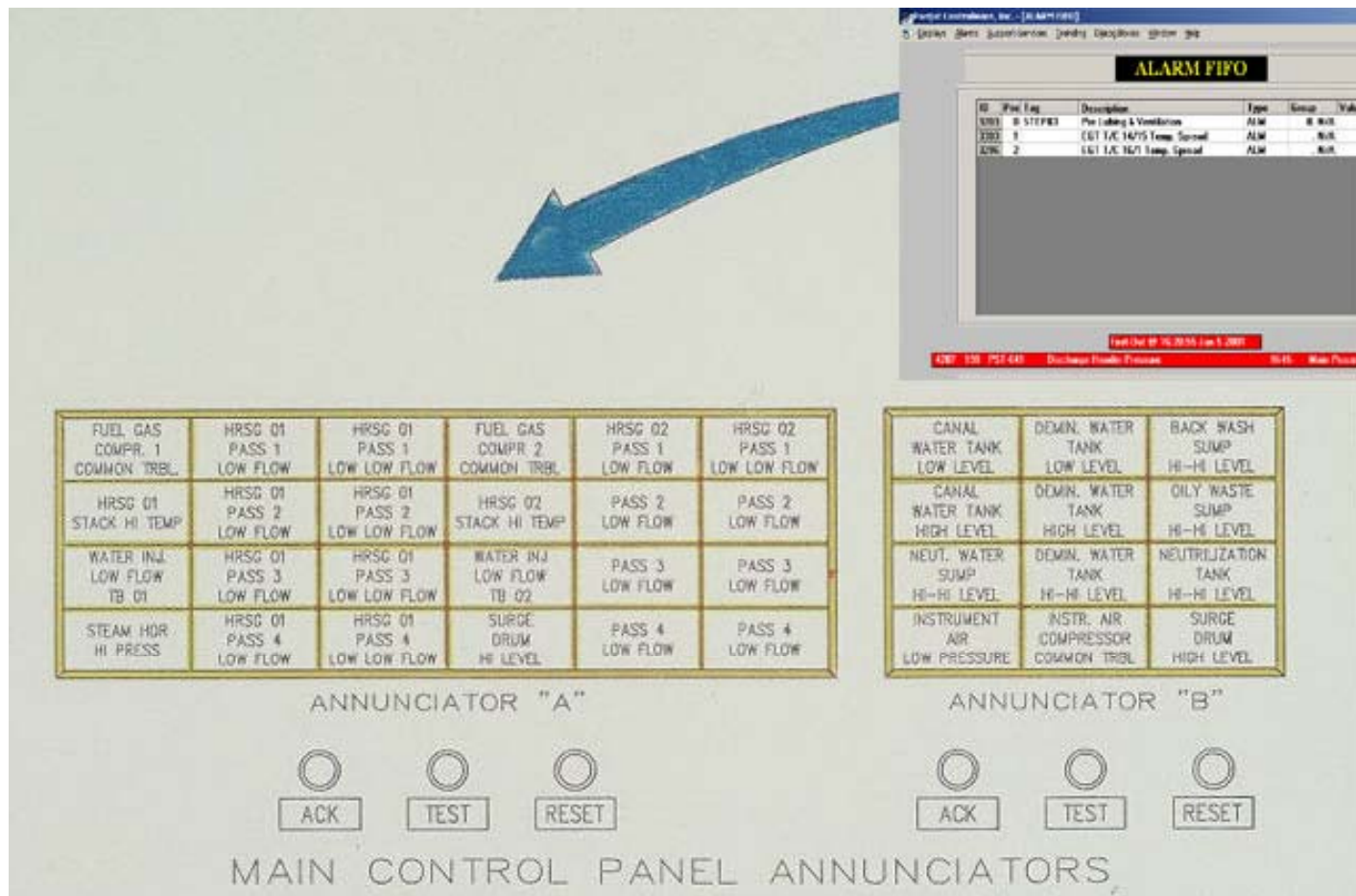
Training Program Example

Facility Orientation



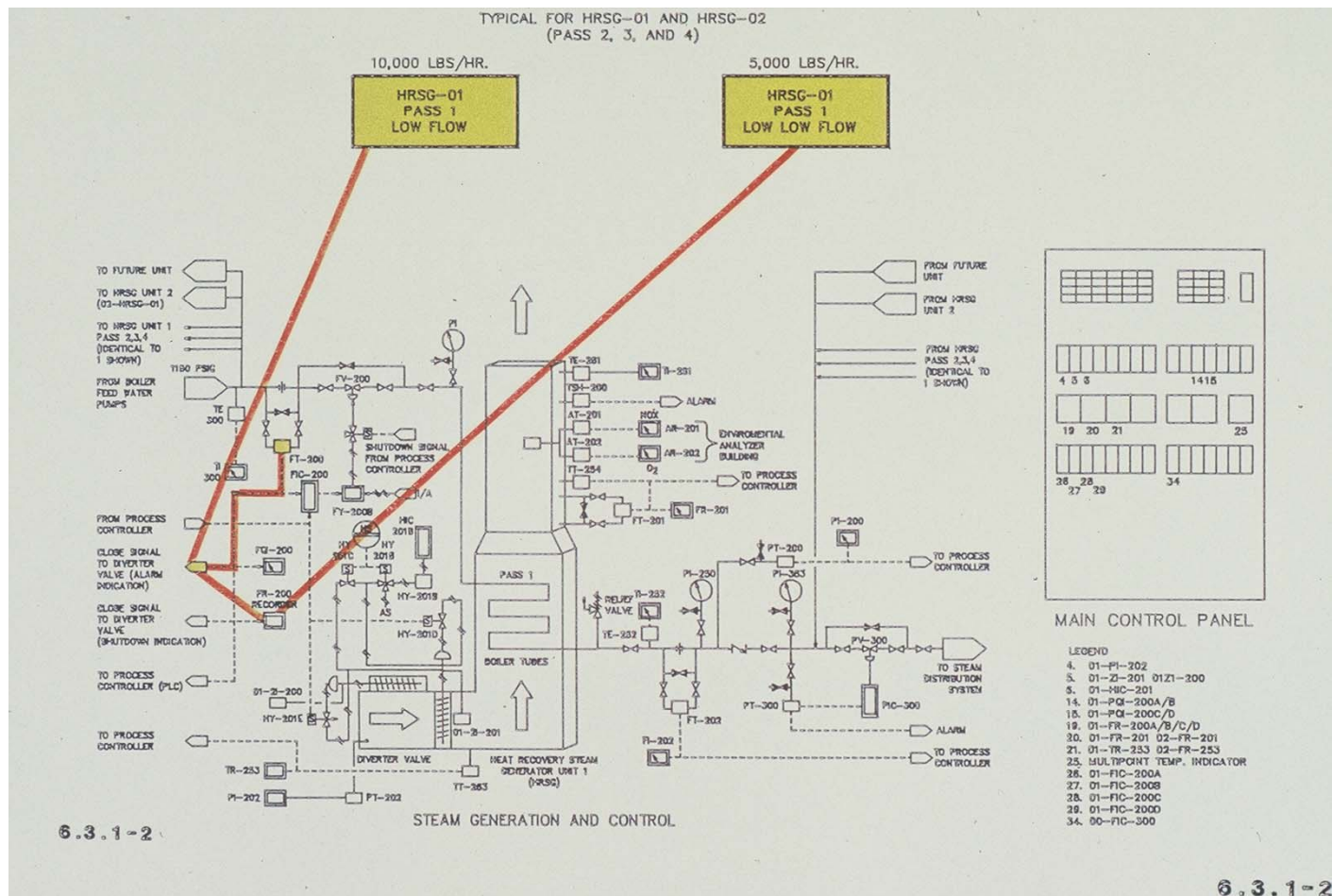
O&M Training

Annunciator Panel Layout



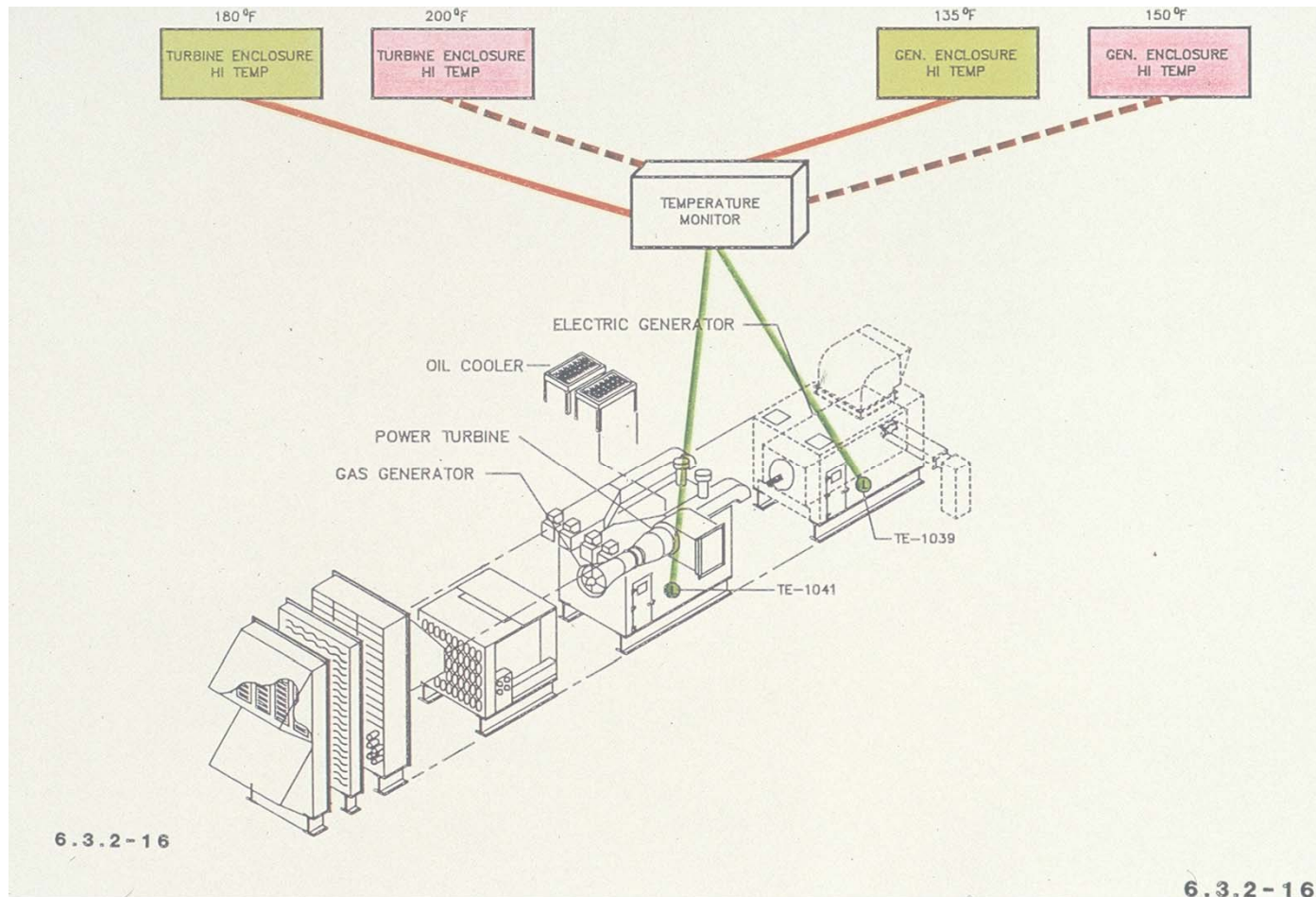
O&M Training

Identifying the Alarm Point & What it Means

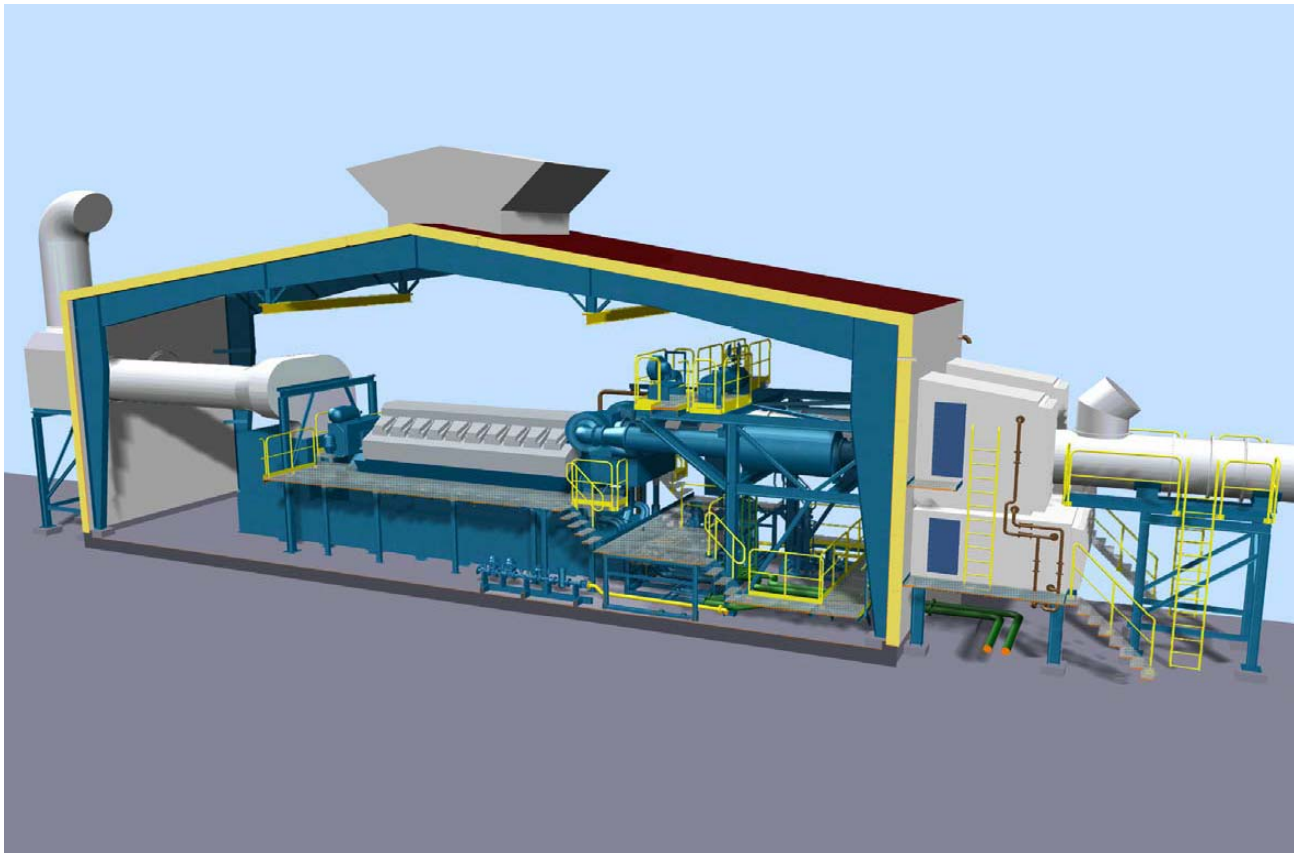


O&M Training

Alarm Indication & Location of the Sending Device



Typical Gas Engine-Generator Plant



Trove International LLC Experience

Supervisory Control Systems

- Plant wide monitoring & control from any number of locations
- Real time & historical trending, alarming & data archiving
- Fully secure automation system with data integrity
- Unlimited number of I/O points

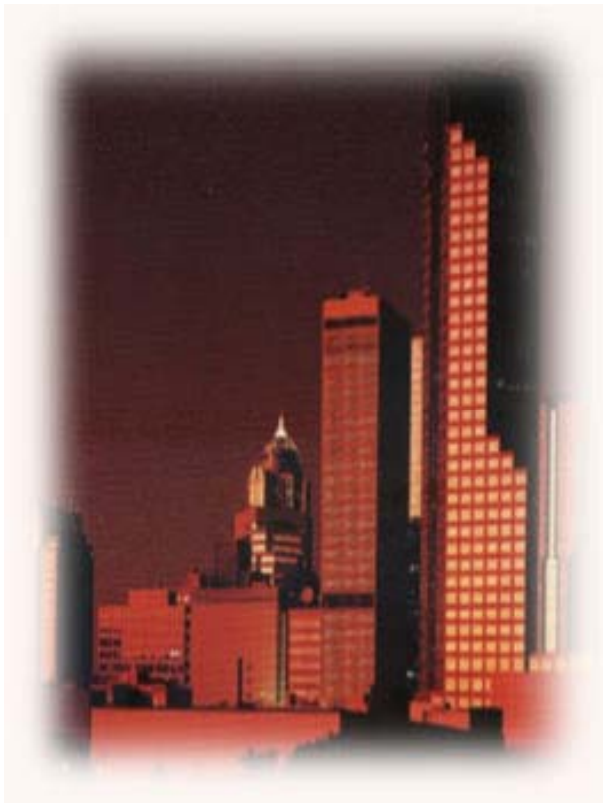


Engineering Services

- **Field Service Technicians**
- **Operator training**
- **Commissioning Management**
- **Long term maintenance**
- **Technical support**



Internet Drawing Management System

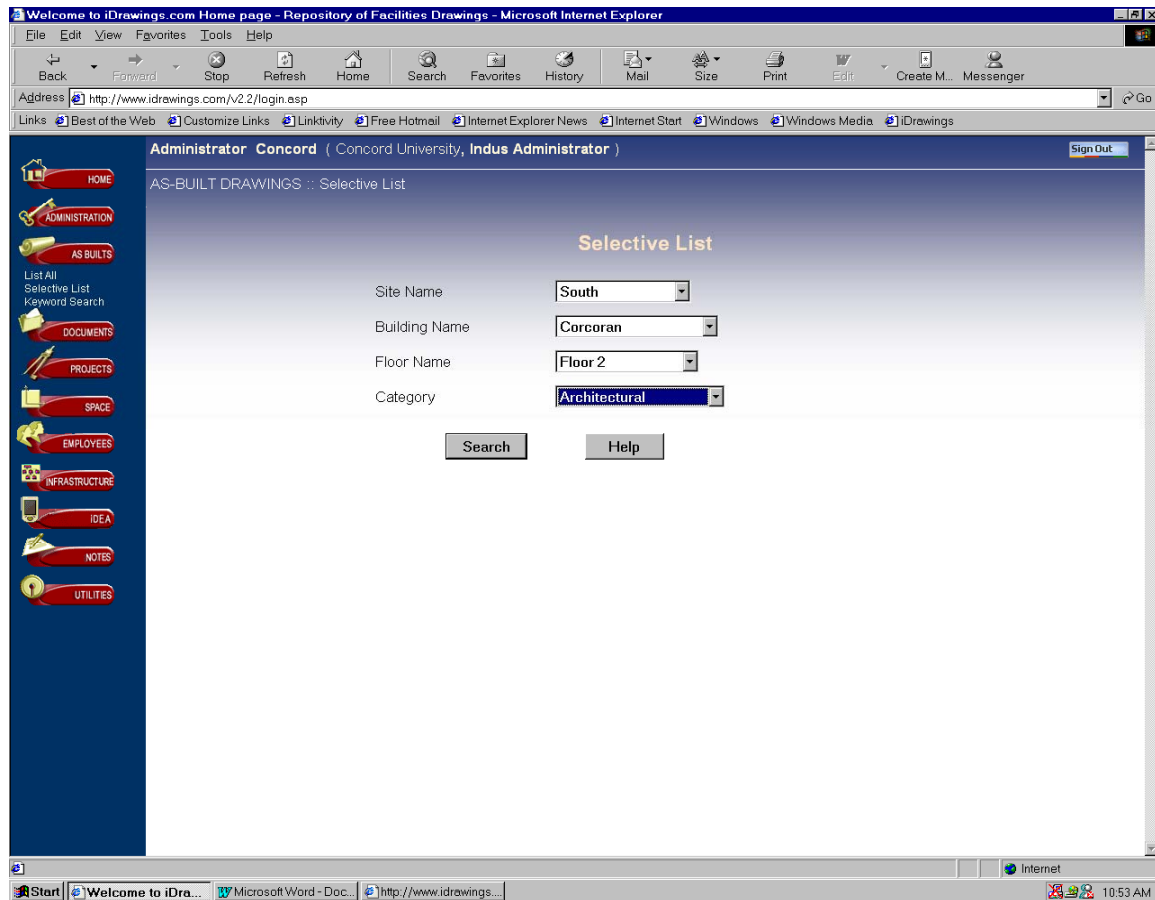


As-Built Module

*Trove International
LLC*

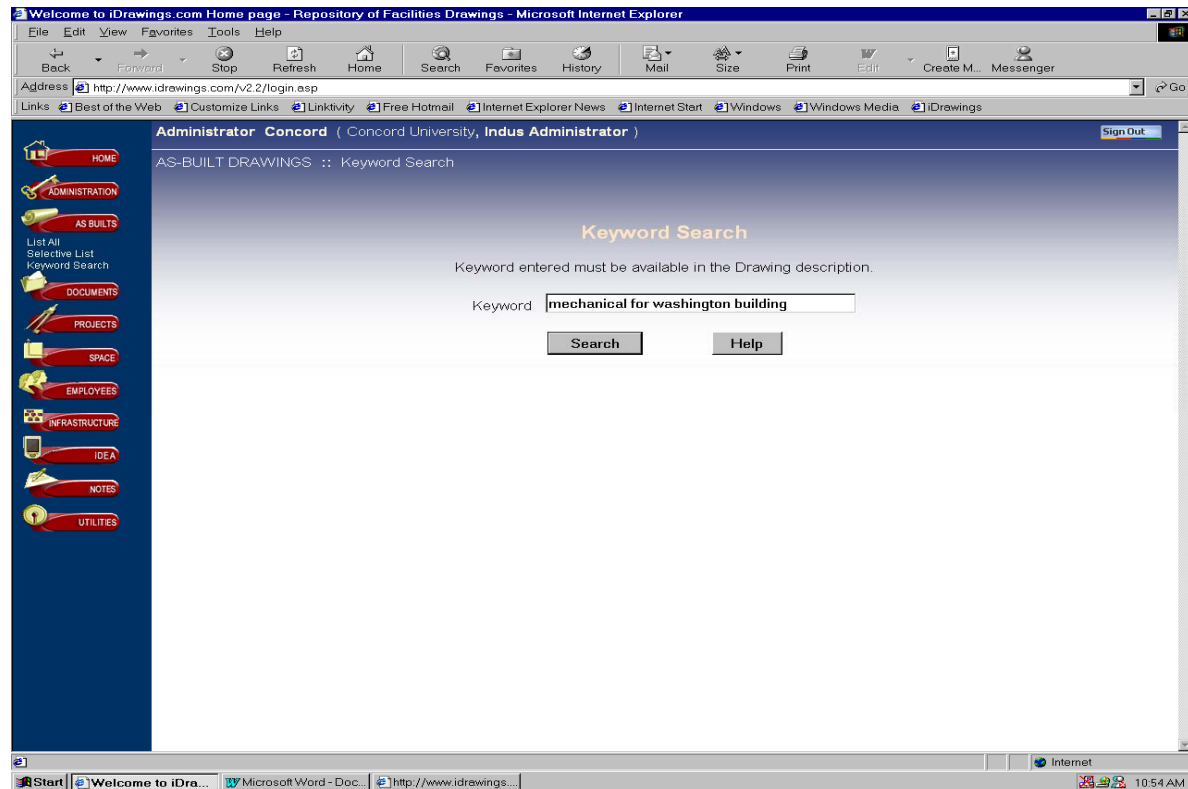
Hierarchically Organized Library

- Files organized and stored at the central server – by site, building, floor, and discipline
- Easy retrieval



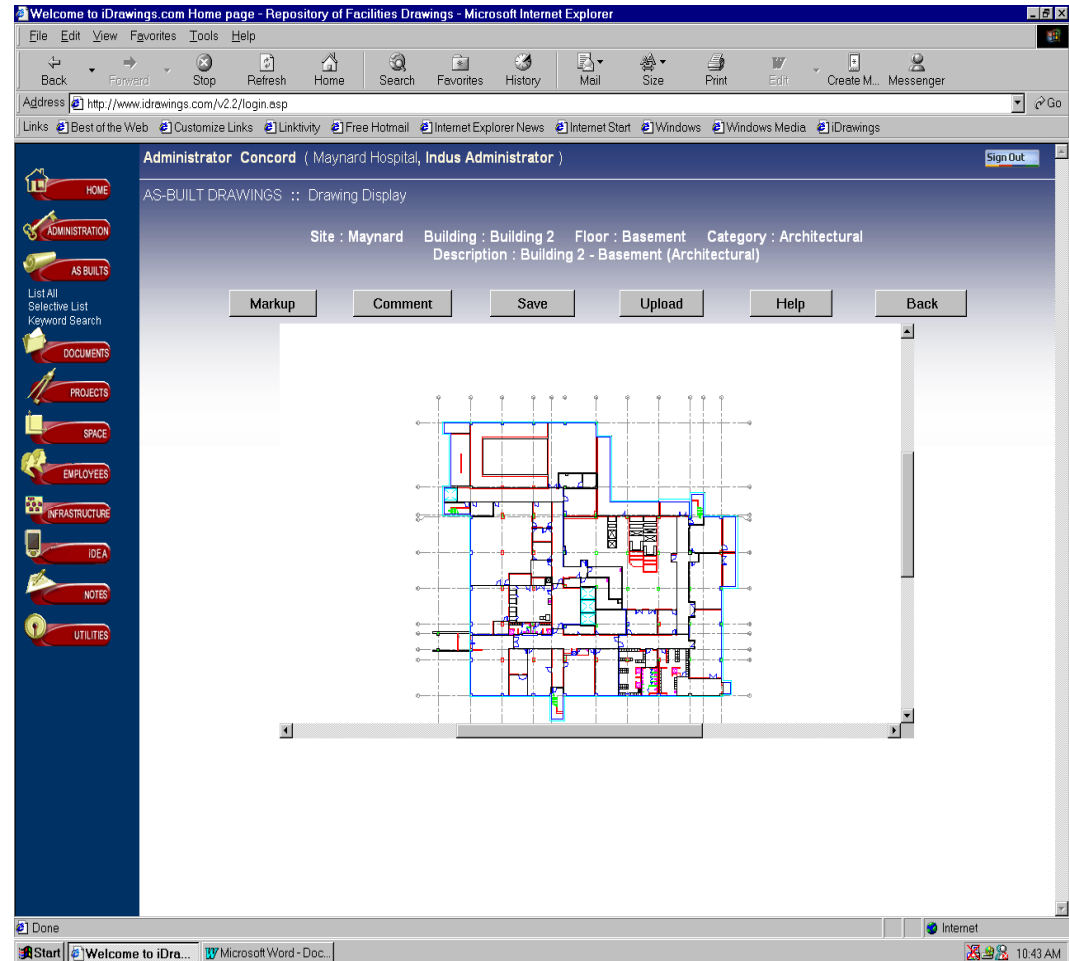
Keyword Search

- Type in any keyword to search for drawing
- No need to remember files names



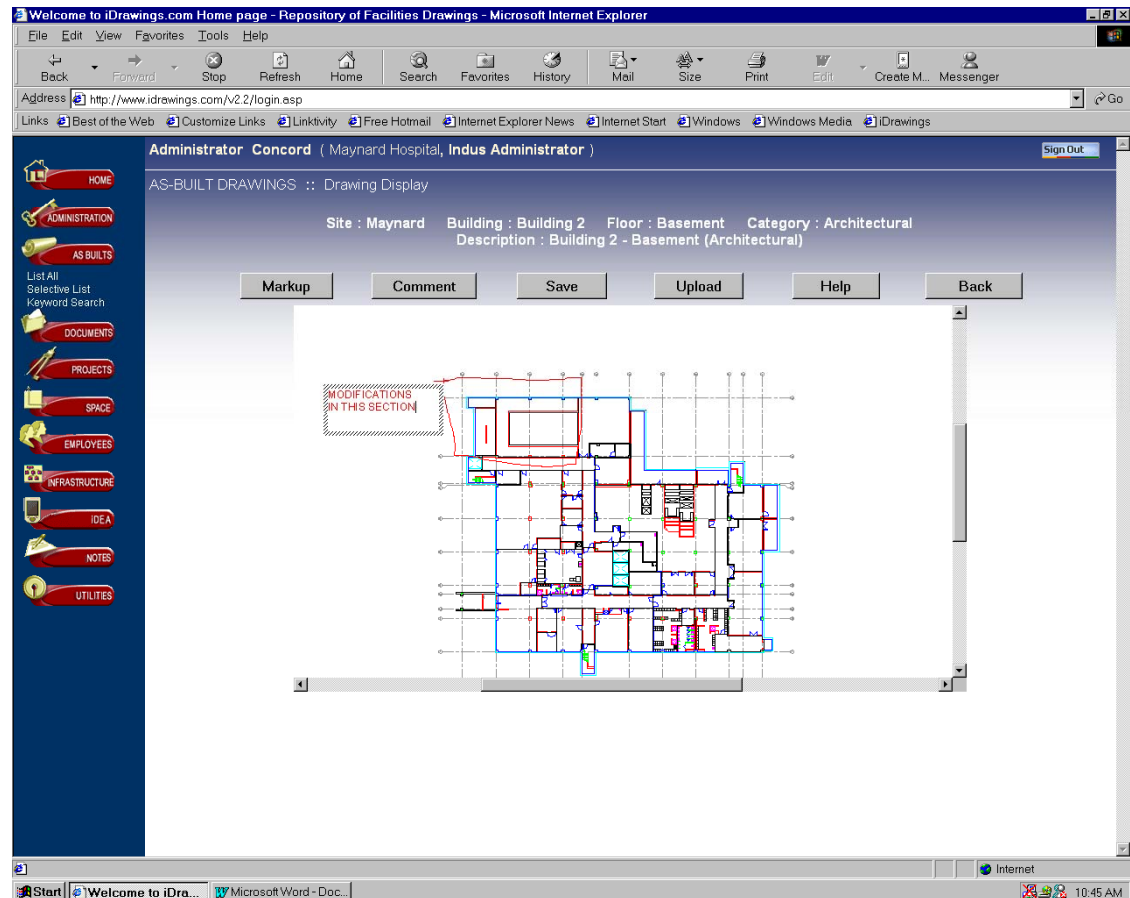
View Drawings

- No CAD software needed to view CAD drawings
- Internet browser sufficient



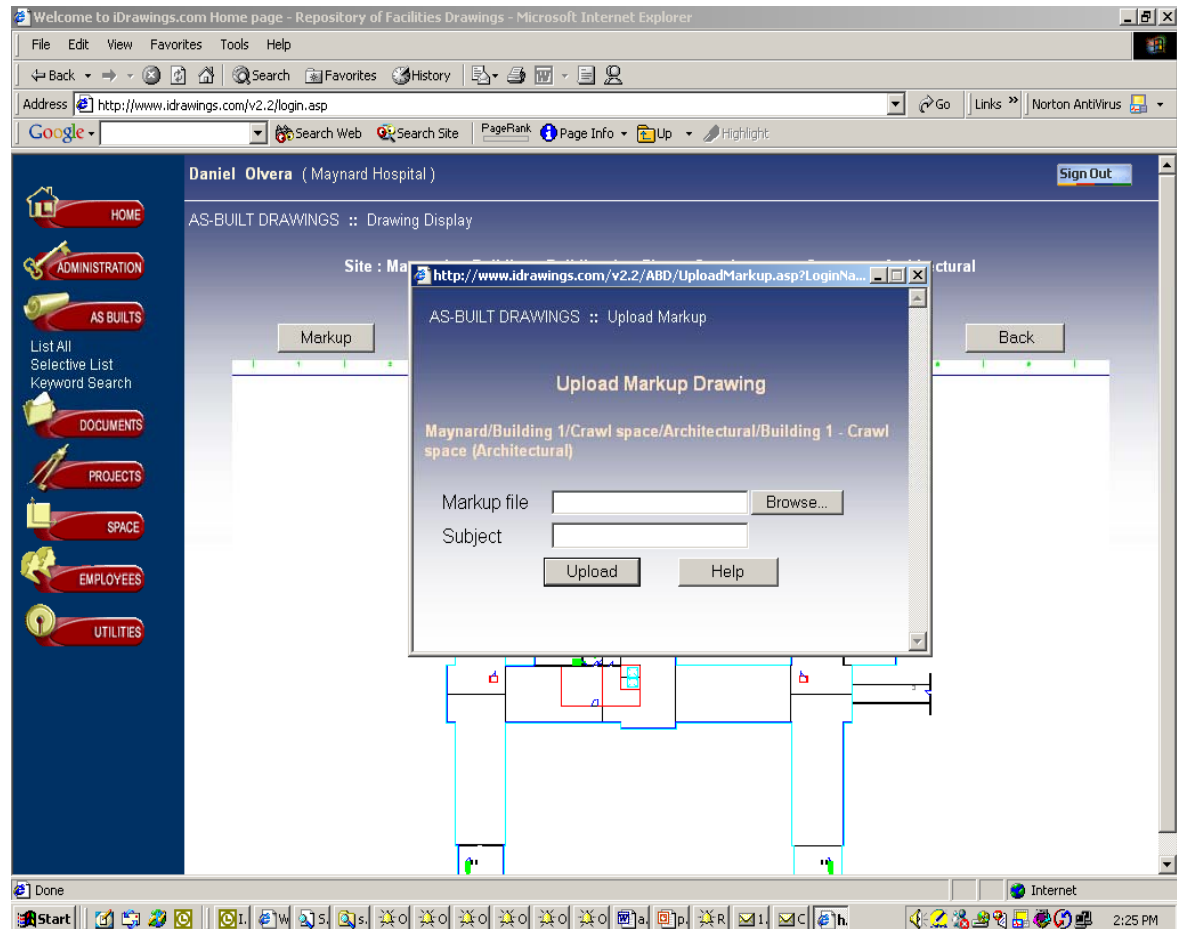
Free Hand Mark-Ups

- Mark-up your drawings
- Add comments
- Save a copy for your private use or share it with others



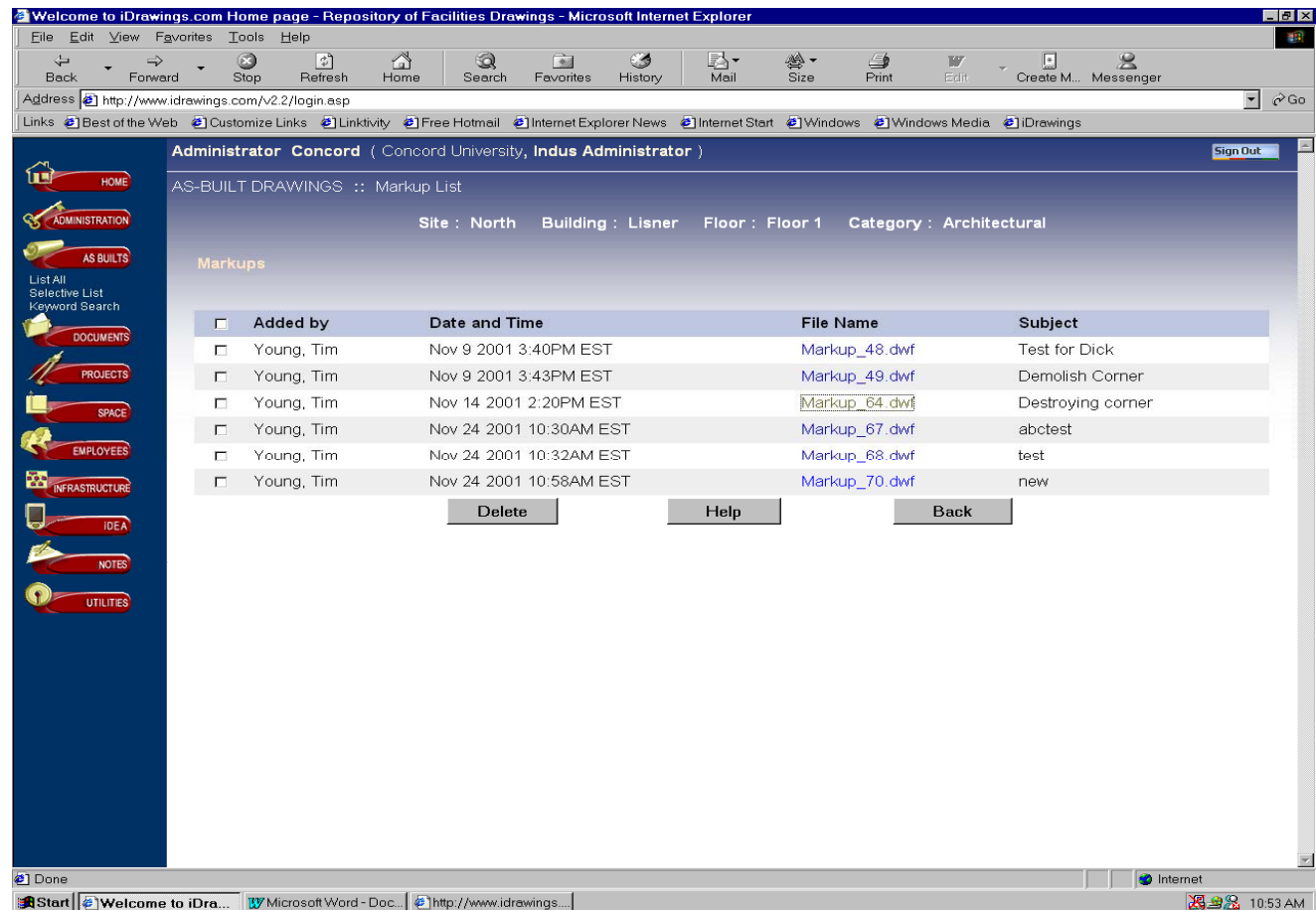
Upload Mark-Ups

- Upload your mark-up drawings to the server
- Available for others to view and comment



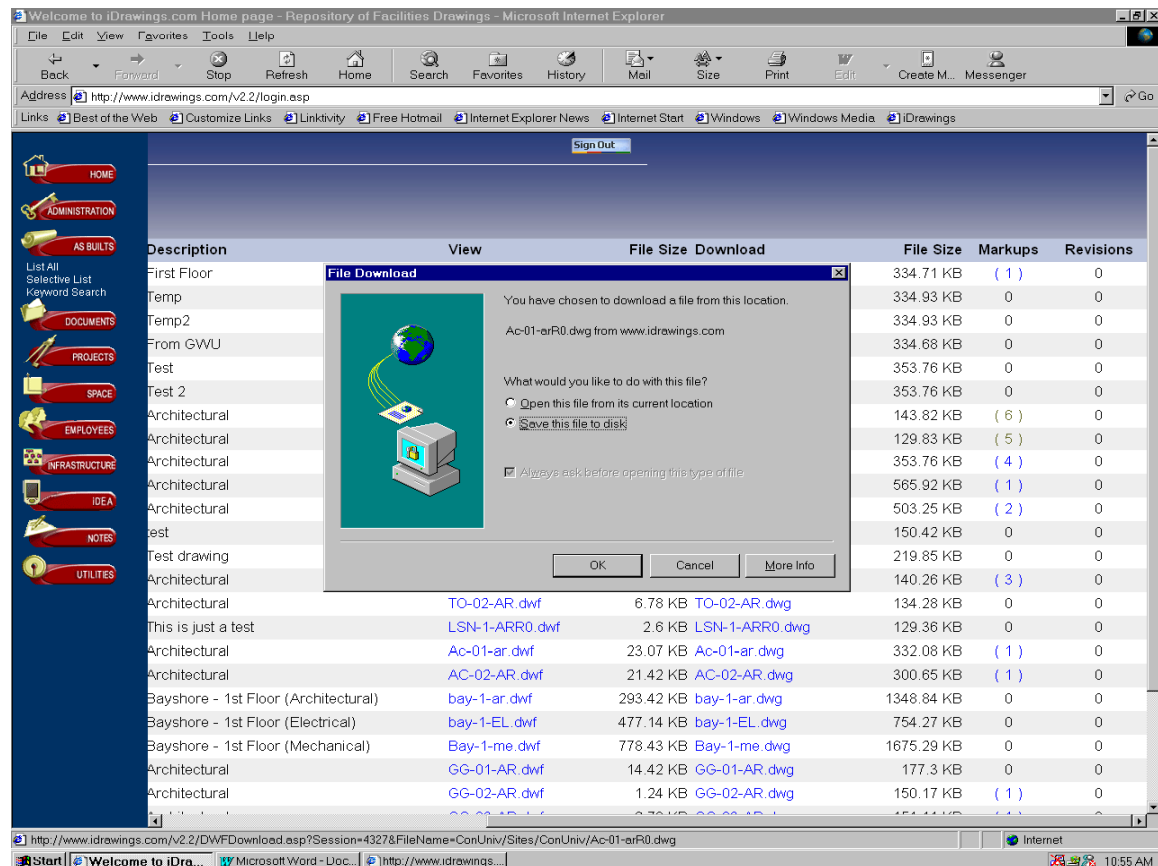
Mark-Ups Library

- Maintains a library of all mark-ups
- Original drawing never changes



File Download

- Download dwg files for modifications and further uploading



Drawing Revisions

- Upload a new version of as-built; old version kept for reference

The screenshot shows a web browser window titled "Welcome to iDrawings.com Home page - Repository of Facilities Drawings - Microsoft Internet Explorer". The address bar shows "http://www.idrawings.com/v2.2/login.asp". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The toolbar contains buttons for Back, Forward, Stop, Refresh, Home, Search, Favorites, History, Mail, Size, Print, Edit, Create M..., and Messenger. The Links bar shows "Best of the Web", "Customize Links", "Linkivity", "Free Hotmail", "Internet Explorer News", "Internet Start", "Windows", "Windows Media", and "iDrawings".

The main content area is titled "Administrator Concord (Concord University, Indus Administrator)" and "ADMINISTRATION :: Upload Drawing : Revise Drawing". It features a "Revise Drawing" form with the following fields:

- Site: North (dropdown menu)
- Building: Lisner (dropdown menu)
- Floor: Floor 1 (dropdown menu)
- Category: Architectural (dropdown menu)
- Description: Architectural for Lisner Floor 1 (text input)
- DWG File (Provide Full Path): D:\WINNT\Profiles\Administrator.000\ (with a "Browse..." button)
- DWF File (Provide Full Path): D:\WINNT\Profiles\Administrator.000\ (with a "Browse..." button)

At the bottom of the form are "Upload", "Help", and "Back" buttons. A note states: "* Shows mandatory fields".

The left sidebar contains a navigation menu with the following items: HOME, ADMINISTRATION (with sub-items: Customers, Users, Sites, Projects, Upload Drawing, Select Customer, Logbook), AS BUILTS, DOCUMENTS, PROJECTS, SPACE, EMPLOYEES, INFRASTRUCTURE, IDEA, NOTES, and UTILITIES.

The status bar at the bottom shows "Opening page http://www.idrawings.com/v2.2/ABD/ReviseDrawing.asp...", "Internet", and a taskbar with "Start", "Welcome to iDra...", "Microsoft Word - Doc...", "http://www.idrawings.com...", and "Exploring - Desktop". The system clock shows "11:01 AM".