

SESSION 1: OPERATION AND MAINTENANCE

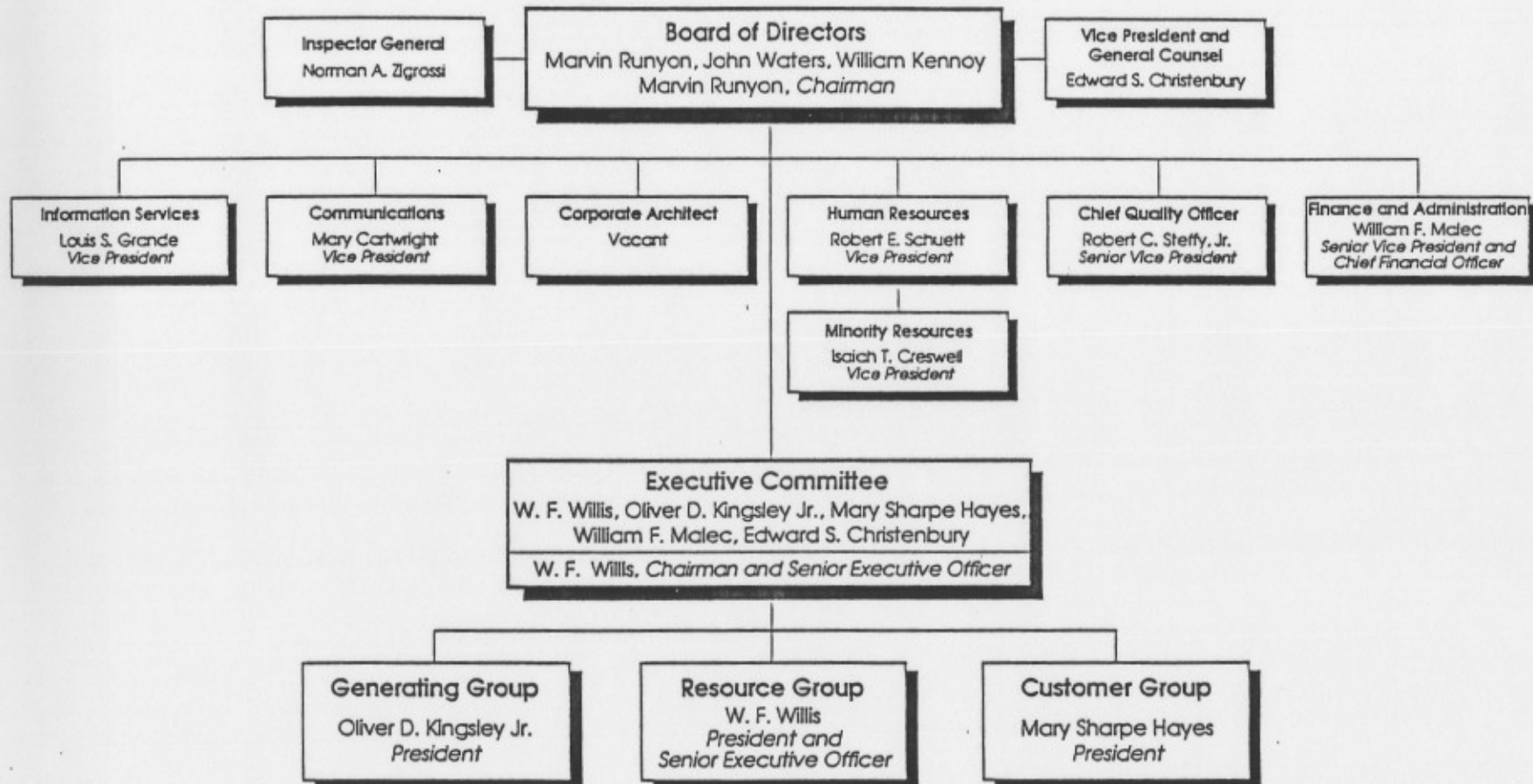
KEYNOTE PAPER BY:

Carl D. Nicholson and Garrett F. Tweed

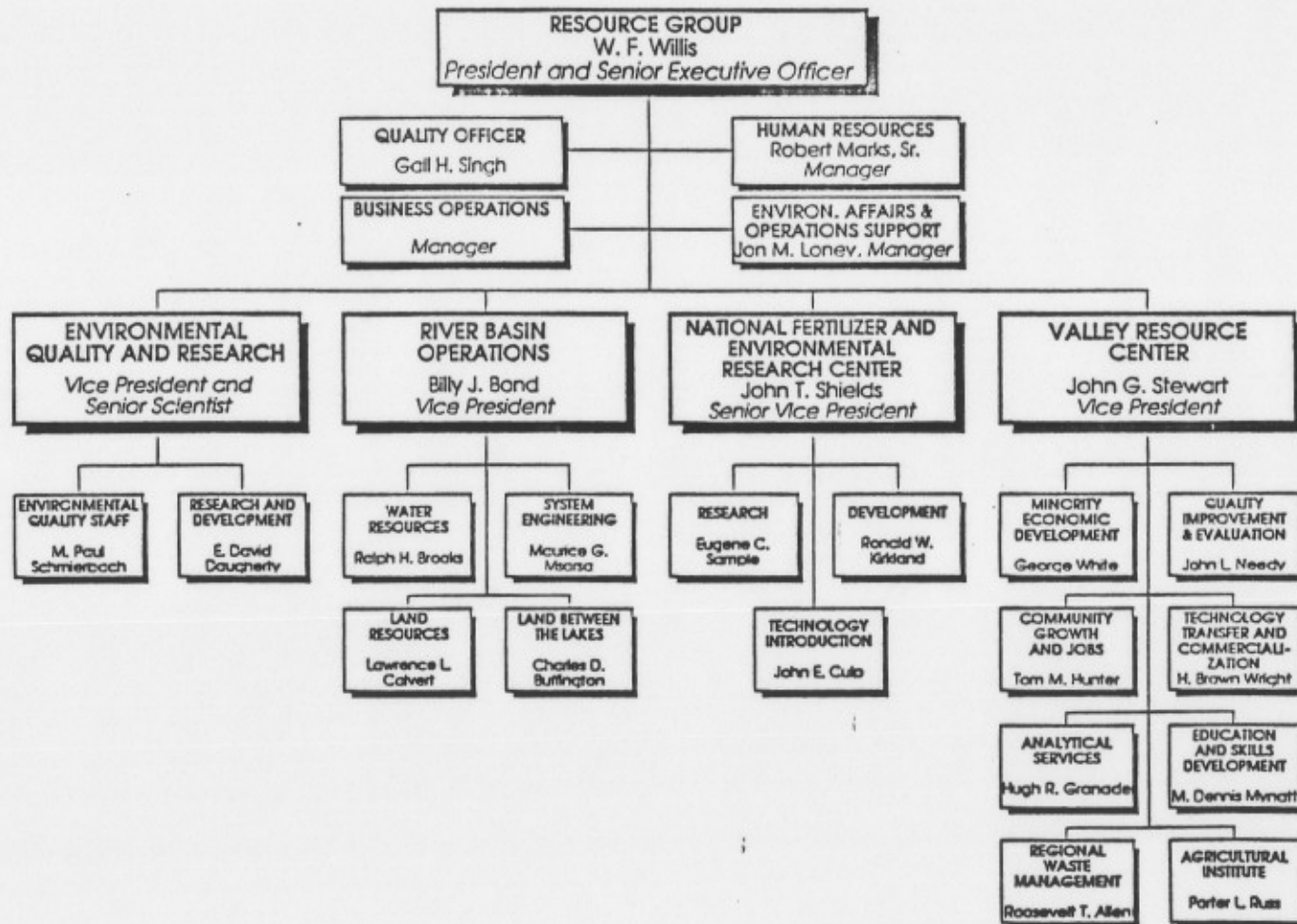
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(Manuscript of paper not available)

TENNESSEE VALLEY AUTHORITY



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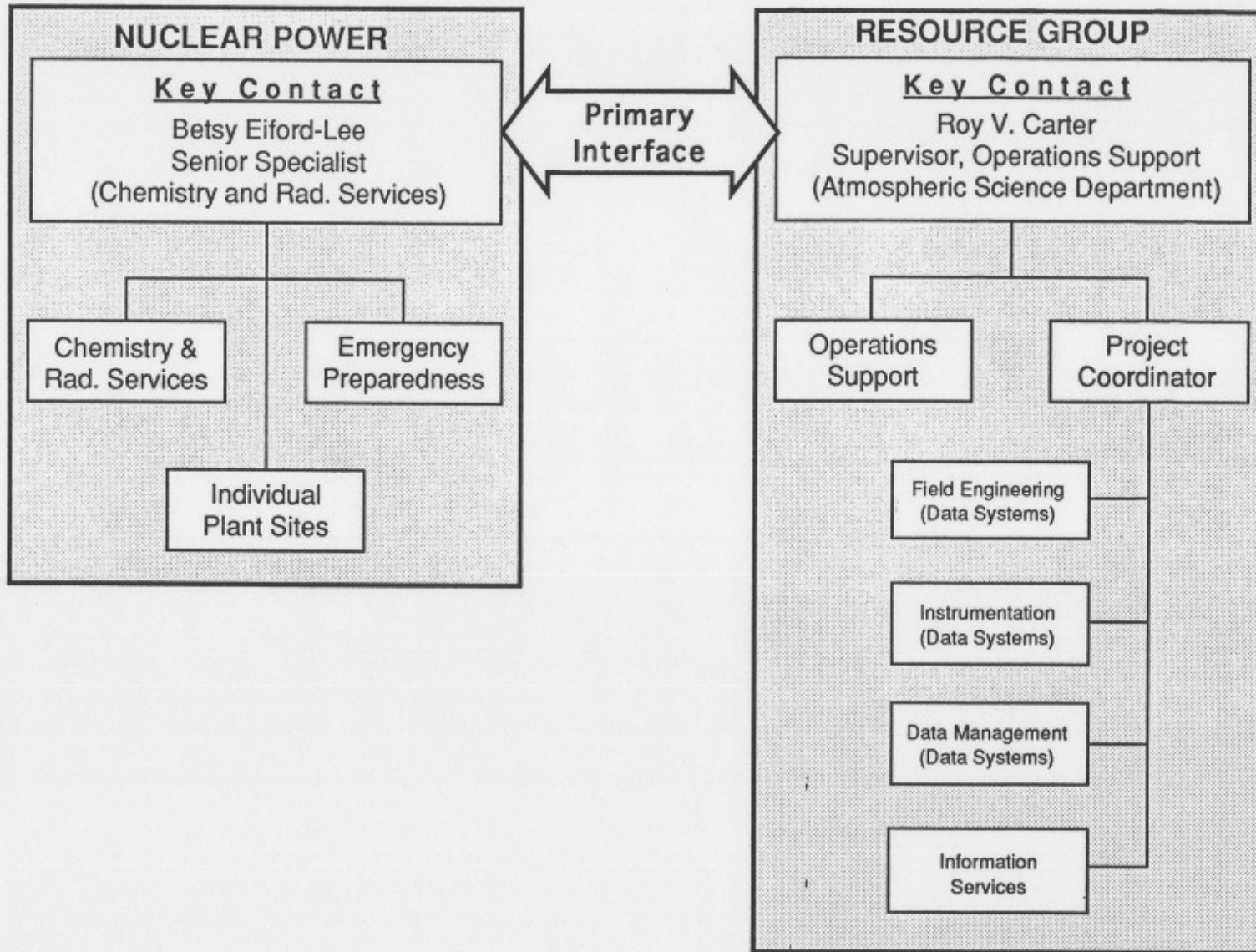
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Meteorological Monitoring Organization for Nuclear Plants



SEQUOYAH METEOROLOGICAL DATA STATION

Type of data gathered
Three (3) levels (10m, 46m, 91m) of each
 wind speed
 wind direction
 air temperature
One (1) level (10m)
 dew point
One (1) Solar Radiation Sensor (1m)
One (1) Rain Gage (1M)
Four (4) river temperature stations
 up stream
 down stream
 discharge pond
 Chickamauga dam release
Three (3) flow monitors
 Chickamauga Dam
 Watts Bar Dam
 Discharge pond

The data is gathered with a DEC VAX II computer through Computer Products interfacing boards, a Fluke DVM, switch controller, and a two way radio network. The entire power system is backed up by a battery backed UPS and a propane fueled generator. Each sensor signal line is protected by button type SVP's from lightning. Each phone line and data line from the computer is protected by opto couplers installed in phone lines.

Data printed out each 15 minutes and hourly.

The data is sent to the following places.

 Sequoyah Nuclear Plant Control Room every minute.

 Sequoyah Nuclear Plant TSC through CEECC (called manually with PC).

 CECC (Central Emergency Control Center) sent every fifteen (15) minutes (running 15 minute average) also every hour (running hourly average).

 Knoxville (Information Systems) one time each day (full twenty-four hours of all data collected). Soon to be real time.

 Chickamauga Load Control Center each minute and up dated every fifteen (15) minutes (river temperature only).

The data station is calibrated every six (6) months on a regular basis or if any trouble is suspected.

The station is visited one (1) time each week. At this time a check list is gone through which checks and verifies the data. We compare recorder charts and VAX printout with current weather conditions. Also the emergency generator is checked.