

825 N.E. Multnomah
Portland, Oregon 97232
(503) 464-5000



March 9, 1999

Mr. Brian Schumacher
Y2K Coordinator
California Public Utilities Commission
505 Van Ness Avenue., Room 4000
San Francisco, CA 94102

Dear Mr. Schumacher:

Pursuant to Resolution M-4792 please find enclosed PacifiCorp's updated responses to the survey attached to resolution M-4792.

Feel free to call me at 503-813-6081 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian K. Hedman".

Brian K. Hedman
Manager, Regulation

Enclosures

**California Public Utilities Commission
Year 2000 Program Assessment Checklist & Survey for Jurisdictional Companies¹**

Company Name: PACIFICORP
Address: 825 NE Multnomah Street
Portland, OR 97232
Type of Utility: Electric
Utility No: U901-E

Name of individual with primary responsibility for addressing the Year 2000 problem in your Company:

Name: John Bohling
Title: Senior Vice President
Address: 825 NE Multnomah Street, LCT ²⁰⁰⁰ 4700
Portland, OR 97232
Telephone No: (503) 813-6250
Fax No: (503) 813-~~62591250~~
Email Address: john.bohling@pacificorp.com

PLEASE DIRECT YOUR RESPONSES TO THE APPROPRIATE INDUSTRY DIVISION AT THE CPUC, ATTENTION Y2K COORDINATOR

Preliminary Questions

If the company's ONLY computerized systems are related to billing or other administrative tasks, please check this box , STOP HERE and return this page.

- X If the company has computerized service delivery systems under its control, please complete the remainder of this survey.** For the purposes of this question, include embedded systems necessary to delivery of the utility services you provide. If you do not know whether you have embedded Systems necessary to delivery of the utility services you provide, please complete the remainder of this survey.

I certify that the responses provided to this survey are true and correct, and that I have the authority to represent the company on these issues.

By: John A. Bohling
Title: SENIOR VICE PRESIDENT.
Company: PACIFICORP.

¹ Modeled primarily on the U.S. GAO's Year 2000 Program Assessment Checklist.

For each question below which requires a "yes" or "no" answer, please check the corresponding box if your answer is "yes". For questions which require an additional response, please provide your responses on separate sheets of paper.

Awareness

- X Has the company defined and documented the potential impact of the Year 2000 problem? Please provide a summary of these efforts to the CPUC.

See PacifiCorp's SEC 10K statement at –
<http://www.sec.gov/Archives/edgar/data/75594/0000075594-98-000042.txt>

- X Has the company conducted a Year 2000 awareness campaign with respect to:

- X Employees?
- X Customers?
- X Vendors?

Please summarize your efforts and provide the CPUC with copies of sample documentation relating to any such awareness campaign that could be helpful to an evaluation of your effort.

PacifiCorp has an ongoing communications program to keep its customers and employees informed on the progress of its Y2K preparations. The company's Internet site prominently features the link to its Y2K web site. Customers who contact the company for a statement of its Y2K readiness (typically commercial and industrial customers) receive a letter outlining the Y2K effort at PacifiCorp. These customers are entered into a database and also receive quarterly updates on progress. A video program explaining the Y2K issue was produced for employees and they are kept apprised of the Y2K progress with employee newsletters, electronic daily news, weekly countdown dates and an internal web site.

See Attachment A

PacifiCorp's Y2K Vendor Management Team has committed to assessing the level of its vendors' and suppliers' Y2K readiness. This will ensure that there will be no interruption in the flow of products (materials, equipment, supplies) or services which might impair PacifiCorp's ability to provide energy services to its customers. PacifiCorp sent at least one letter of inquiry to more than 1,500 vendors asking for their Y2K readiness information. The letters included a statement of the Year 2000 issue and informed the recipient about PacifiCorp's own Year 2000 initiative. Inquiries were more aggressive to those vendors who were identified as "critical" to PacifiCorp's operations. The Vendor Management Team continually makes verbal contact with critical vendors to ensure they will be Y2K ready. The team also reviews other sources of information (such as annual reports and web sites) for vendors' Y2K readiness status.

- X Has the company assessed the adequacy of its program management policies, capabilities, and practices, including configuration management, program and project management, and quality assurance?
- X Has the company developed and documented a Year 2000 strategy? Please summarize your strategy.

PacifiCorp is following the industry standard approach of inventory, assess, correct, test, and maintain.

- X Is the Year 2000 strategy supported by executive management?
- X Has the company established an executive management council or committee to guide the Year 2000 program?
- X Has a program manager been appointed and a Year 2000 program office been established and staffed? Who is the manager and what is his/her title and level in the company? How many employees and contractors are dedicated to this effort?

PacifiCorp's Y2K program manager is Tim Meier, VP and CIO. During February 1999 100 FTE were dedicated to PacifiCorp's Y2K project.

- X When did you begin your effort to become Year 2000 compliant and what is your estimated completion date for your compliance plan?

PacifiCorp begin its Y2K effort in 1996; all mission critical systems will be Y2K ready by July 1, 1999.

- X Summarize the resources you anticipate will be necessary for your company to remedy your Year 2000 issues.

PacifiCorp projects that Y2K will cost the corporation \$26 - \$30 million.

- X Has the company identified technical and management points of contacts in core business areas?
- X Does your particular industry have an organization that is providing Y2K guidance and information? If so, please identify the organization.

EPRI, WSCC, NERC, NWPP, WEPI

Assessment

- X Has the company defined Year 2000 compliance? Please provide your definition. Describe what tests or standards your company uses to determine "Y2K compliant" status.

See Attachment B: PacifiCorp Year 2000 Project Date Standard

- X Has the company defined Year 2000 readiness? Please provide your definition. Describe what tests or standards your company uses to determine "Y2K ready" status.

A device or system is considered to be Year 2000 ready where, after study and analysis, it is determined to be suitable for continued use into the year 2000 even though it is not fully compliant.

- X Do you (or does your parent company) have a Year 2000 Compliance statement? If so, please attach. If not, do you plan to have one in the future? When?

See Attachment C: PacifiCorp Year 2000 Project Plan

X What is the date at which you expect to be fully Year 2000 ready?

All mission critical systems will be Y2K ready by July 1, 1999.

What is the date at which you expect to be fully Year 2000 compliant?

N/A

X Has the company identified core business areas and processes?

Has the company assessed the severity of potential impact of Year 2000-induced failures for core business areas and processes? Please describe such potential impacts and the respective severity of each.

**See PacifiCorp's SEC 10K statement at –
<http://www.sec.gov/Archives/edgar/data/75594/0000075594-98-000042.txt>**

X Has the company conducted a comprehensive enterprise-wide inventory of its information systems?

The company has

X system inventory listing components and interfaces for each system

X comprehensive plan to identify and eliminate obsolete code

X Has the company developed a comprehensive list of automated systems?

The company's list identifies

X *links to core business areas or processes*

X *platforms, languages, and database management systems*

X *operating system software and utilities*

X *telecommunications*

X *internal and external interfaces*

X *owners*

X *the availability and adequacy of source code and associated documentation*

X Has the company analyzed its automated Systems and identified for each system?

X non-repairable items (lack of source code or documentation)

X conversion or replacement resources required for each platform, application, database management system, archives utility, or interface

X Has the company prioritized its system conversion and replacement program?

The company's prioritization process includes

X *service delivery systems prioritized ahead of billing and administrative systems*

X *ranking by business impact*

X *ranking by anticipated failure date*

X *identification of applications, databases, archives, and interfaces that cannot be converted because of resource and time constraints*

- X Has the company established Year 2000 project teams for business areas and major systems?
- X Has the company developed a Year 2000 program plan? If so, please provide the CPUC with a copy of the plan.

See Attachment C – PACIFICORP’s Year 2000 Project Plan

The company's program plan includes

- X *schedules for all tasks and phases*
 - X *master conversion and replacement schedule*
 - X *assessment and selection of outsourcing options*
 - X *assignment of conversion or replacement projects to project teams*
 - X *risk assessment*
 - X *contingency plans for all systems*
- X Has the company identified and mobilized required resources and capabilities? Please describe.
- X Has the company developed validation strategies and testing plans for all converted or replaced systems and their components?
- X Has the company analyzed and identified requirements for a Year 2000 test facility?
- X Has the company identified and acquired Year 2000 tools?
- X Has the company considered implementation scheduling issues? *The company's program plan addresses*
 - X *where conversion will take place (data center or off-site location)*
 - X *time needed to place converted Systems into production*
 - X *conversion of backup or archived data*
- X In priority order identify the top twenty hardware and the top twenty software systems for whose operation your company is responsible that directly and immediately support the utility services you offer.

See Attachment D.

For each of the systems identified in response to the prior question, provide your company's assessment of its Year 2000 compliance, identify components of the systems that are internally produced and those that are not internally produced.

See Attachment D.

- X For each of the systems identified in response to the prior question that are not assessed as Year 2000 compliant, set forth your schedule for (a) initiating remediation or replacement; (b) unit testing of compliance; (c) internal system integration testing for compliance; and (d) where appropriate, testing with interconnecting utilities. Explain the transactions that will be used in conducting those tests. Identify any systems which you intend to make Year 2000 ready but do not intend to make Year 2000 compliant, and explain why. Of these systems, identify the systems which are currently year 2000 ready, and set forth your schedule for making the remaining systems year 2000 ready.

See Attachment D.

- X For each of the systems identified in response to the prior question that are not assessed as Year 2000 compliant or Year 2000 ready, set forth your schedule for (a) developing contingency plans in case remediation plans are delayed or fail, including failure just before or after the change in date to the year 2000, and including the leap year date of February 29, 2000; and (b) testing of those contingency plans.

See Attachment E.

Has the company addressed interface and data exchange issues?

Each impacted business unit and department are addressing interface and data exchange issues as part of their Y2K preparations.

*The company has
analyzed dependencies on data provided by other organizations
contacted all entities with whom it exchanges data
identified the need for data bridges or filters
made contingency plans if no data are received from external sources
made plans to determine that incoming data are valid
developed contingency plans to handle invalid data*

In assessing potential Y2K problems, which of the following best describes the anticipated impact for your utility operations? (check one) please add additional information where appropriate:

- X **All mission critical systems will be Y2K ready by July 1, 1999.**

We will identify and correct all Y2K problems before Jan. 1, 2000.

We will be 100% compliant and/or ready sometime after Jan. 1, 2000 with no significant disruptions to service or billing.

We will be 100% compliant and/or ready sometime after Jan. 1, 2000 with some significant disruptions to service or billing.

We will be 100% compliant and/or ready sometime after Jan. 1, 2000 but our assessment is not accurate enough to identify all problems that may significantly affect service or billing.

We are not following a compliance plan that calls for prior assessment of potential Y2K problems.

What is your plan for monitoring for potential problems after January 1, 2000?

See Attachment E.

- X Has the company initiated the development of contingency plans for critical systems? Please provide a copy of your contingency plan.

See Attachment E.

- X Does the impact assessment document identify Year 2000 vulnerable systems and processes outside the traditional information resource management area that may affect the company's operations? Please provide the CPUC with documentation of such identified impacts.

See Attachment E.

The assessment document addresses the impact of potential Year 2000 induced failure of

telecommunication systems, including telephone and data networks switching equipment building infrastructure

Renovation

- X Is the company meeting its budget and schedule in the conversion of targeted applications, platforms, databases, archives, or interfaces?
- X Is the company meeting its budget and schedule in developing bridges and filters to handle non-conforming data?
- X Is the company meeting its budget and schedule in the replacement of targeted applications and system components?
- X Is the company documenting all code and system modifications and using configuration management to control changes?
- X Is the company scheduling unit, integration, and system tests'?
- X Is the company meeting its budget and schedule in eliminating targeted applications and system components?
- X Is the company communicating the changes to its information systems to all internal and external users?
- X Is the company tracking the conversion and replacement process and collecting and using project metrics to manage the conversion and replacement process'?

- X Is the company sharing information among Year 2000 projects?
The company is disseminating

- X *"lessons learned"*
- X *best practices*

What actions remain to be taken for your computer hardware to be fully Year 2000 compliant?

Desktop (distributed systems) completes its efforts September 1999.

What actions remain to be taken in order for your infrastructure to be fully Year 2000 compliant?

Additional upgrades to operating systems will be completed 1Q1999.

What actions have you taken to identify and test embedded chips within your infrastructure?

Each Y2K sub-project has within their scope the identification of embedded chips within their infrastructure.

- X What specific embedded chip Year 2000 problems have you found and in what way could they affect the services you provide?

The only critical system uncovered in generation during their assessment is the MAX 1000 Distributed Control System (DCS); if it failed the power plant would shut down. These systems will be remediated and fully tested prior to July 1, 1999.

Validation

- X Has the company developed and documented test and validation plans for each converted or replaced application or system component?
- X Has the company developed and documented a strategy for testing contractor-converted or replaced applications or system components?
- X Has the company implemented a Year 2000 test facility?
- X Has the company implemented automated test tools and scripts?
- X Has the company performed unit, integration, and system tests on each converted or replaced component

The company's testing procedures include the following types of tests

- X *regression*
- X *performance*
- X *stress*
- X *forward and backward time*

- X Is the company tracking the testing and validation process and collecting and using test metrics to manage the testing activities?

X Has the company initiated acceptance tests?

Implementation

X Has the company defined its transition environment and procedures?

X Has the company developed and documented a schedule for the implementation of all converted or replaced applications and system components?

Has the company resolved data exchange issues and inter-company concerns?

Each business unit and department has within it's scope the resolving of these issues where applicable.

Has the company dealt with database and archive conversion?

Yes ...

Has the company completed acceptance testing?

Where applicable acceptance testing is part of the Y2K preparations.

Has the company implemented contingency plans?

The initial draft of our Y2K Contingency Plans for electric systems is complete. The process of refinement and testing will continue during 1999.

Has the company updated or developed disaster recovery plans?

A revised Emergency Response Plan was sent to the California Public Utilities Commission on November 13, 1998.

Has the company reintegrated the converted and replaced systems and related databases into the production environment?

As systems are certified Y2K ready they are reintegrated into the production environment.

Program and Project Management

X Has the company established a Year 2000 program management structure? *The company has*

X *appointed a Year 2000 program manager and established a Year 2000 program team*

X *identified technical and management representatives from each core business area*

- X Based on the assessment of its program management capabilities, has the company developed and implemented policies, guidelines, and procedures to manage a major program?

The company's policies, guidelines, and procedures include

- X *configuration management*
 - X *quality assurance*
 - X *risk management*
 - X *project scheduling and tracking*
 - X *metrics*
 - X *budgeting*
- X Is the company monitoring the Year 2000 program to ensure that projects are following required policies and procedures for configuration management, project scheduling and tracking, and metrics?
- X Have you addressed Y2K compliance and/or readiness with external suppliers, contractors, and other business partners or vendors?
- X Have you determined if your suppliers and vendors are Year 2000 compliant and/or year 2000 ready? If no, why not? If yes and your suppliers and vendors are not Year 2000 compliant, what negative impact can this have on your provision of utility service?

What facilities and equipment have vendors certified as Year 2000 compliant?
What facilities and equipment have vendors certified as Year 2000 ready?

Vendor certification is the first step in our Assessment Phase.

Attachment A



March 3, 1999

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We have received your inquiry regarding PacifiCorp's Year 2000 (Y2K) readiness. The Company's Y2K project is on schedule to have all critical systems tested and ready by July 1, 1999.

PacifiCorp intends to conduct business as usual after midnight, December 31, 1999. Preparations for the Year 2000 began at PacifiCorp in 1996. The Company recognized early in the project that the Y2K problem is a global business issue, rather than purely a technological one.

PacifiCorp has approximately 100 full-time employees and consultants working on the Year 2000 project. A central Y2K Project Office coordinates all activities throughout the corporation, as well as with our suppliers and business partners.

The top priority areas are those that affect our ability to safely and reliably provide electric service to our customers. The following table summarizes the status of our Y2K efforts as of February 12, 1999.

Area	Target Date for Completion	Status
Computer Systems – Correct and Test	December 31, 1998	Complete
Electric Systems – Inventory	January 15, 1999	Complete
Electric Systems – Assessment	February 29, 1999	On Schedule
Electric Systems – Correct and Test	July 1, 1999	On Schedule
Computer Systems – Applications to Replace	July 1, 1999	On Schedule
Computer Systems – Desktop	September 30, 1999	On Schedule

To ensure continued Y2K readiness, all new equipment to be installed anywhere within our business operation must be certified Year 2000 ready before it is purchased.

PacifiCorp continues to work closely with the North American Electric Reliability Council (NERC) and the Western Systems Coordinating Council (WSCC) and other electric utilities to ensure the integrity of the interconnected electrical distribution and transmission system in PacifiCorp's service area and the Western United States. These agencies require Year 2000 readiness for all interconnected electric utilities by July 1, 1999. In compliance with NERC guidelines, PacifiCorp and the other western region electric utilities are in the process of developing Year 2000 contingency plans.

Thank you for your interest in PacifiCorp's Y2K readiness. For the most current project information please visit our web site, <http://www.pacificorp.com>. This information is updated by the 5th business day of each month. Also, other sites of interest are: <http://www.nerc.com>, and <http://www.wsc.com>.

The year 2000 statements presented in this letter are a "Year 2000 Readiness Disclosure" as that term is defined by the *Year 2000 Information and Readiness Disclosure Act* (Public Law No: 105-271).

PacifiCorp
Attn: David Register - Year 2000 I/T Project Manager
825 NE Multnomah Street – LCT 700
Portland, OR 97232
E-mail: David.Register@pacificorp.com

PacifiCorp Year 2000 Project

Date Standard:

Effective Date: January 1, 1998

Any package purchased or developed in-house after the effective date of this standard must adhere to this standard.

Compliance Definition

To be considered Year 2000 compliant an application, system, or device must be able to correctly process date information across all date ranges without error or malfunction. Date processing includes calculations, comparisons, sorts, and unambiguous displays.

Date Standard

To support multi-century date processing, whenever a date that includes the year is used as input or stored in a file or database, the year must be four digits. Any calculation, comparing, or sorting of dates must be done with four-digit years.

The date must be unambiguously represented on input, display, and printed reports. In compliance with the X.12 Standard, it is preferred that dates stored or shared across systems be in CCYYMMDD format. Purchased systems may use another storage format if they can accurately represent multi-century dates unambiguously that allow proper calculation, comparison, and sorting.

No new software (in-house or third party) should be installed unless it complies with this standard.

Scope

This standard applies to all programs and files, regardless of language, environment, or platform. This includes batch, on-line, and data base programs on the mainframe, as well as all programs, files, and data bases on minicomputers and PCs.

Adherence to this standard is required for purchased packages as well as for programs written in-house. This requirement should be explicitly stated in the contract and should be a condition for acceptance.

Exceptions

Purchased systems:

Special internal date formats used by purchased software packages are acceptable if they represent all dates (including multi-century dates) unambiguously and allows proper calculation, comparison, viewing, and sorting. An example of such a format is the date number used by FOCUS. If data from a package that uses a special format is written out to be processed by other programs, the dates must be converted to a four-digit year in CCYYMMDD format

Attachment C
The 'Year 2000 Problem'

The Year 2000 challenge spans all industries. The problem exists because for decades it was standard practice to use two digits, rather than four, to designate the calendar year (e.g., "89" rather than "1989"). Calculations involving dates after December 31, 1999, but using two digits rather than four, may yield incorrect results if the computer interprets the first two digits as "19" rather than "20". For example, 00 - 99 would equal - 99 rather than 1, as would be the case if four digits were used or implied 2000 - 1999 = 1. Unless this issue is addressed, equipment that uses date-sensitive firmware, hardware and/or software with date fields - like desktop and laptop PCs, copiers, faxes, power plant monitoring and control equipment, etc. - could fail or produce incorrect results when performing operations that include years beyond 1999.

This Year 2000 challenge has also been identified with other date processing issues not related to the use of a two-digit year. Many examples of this exist, like: 9/9/99 – some applications used a date field of all nines to indicate keep this file forever or delete immediately; and 2/29/2000 – a special leap year (one that occurs only once, every 400 years!).

PacifiCorp's Year 2000 Project Plan

This plan is being made available to all members of PacifiCorp through this website. The website's purpose is to help build awareness, understanding, and individual ownership for the Year 2000 (Y2K) date related problems, issues and impacts throughout the entire company.

The nature and scope of Y2K problems are such that they will require a company wide team effort to identify, assess and if necessary correct them. Each business area has a Year 2000 project lead identified who will be responsible for managing the business unit's Y2K efforts. These Y2K leads will be the focus points for conducting a Year 2000 readiness process within their respective business areas. While each business area will be responsible for developing their own Y2K project plans and critical milestones, their activities will be reported to and monitored by the Y2K Project Office. Project documentation requirements will be directed by the Project Office, legal, and audit services. In all cases, the business units will conform to PacifiCorp's Year 2000 project goal to have all critical systems Year 2000 ready by July 1, 1999.

Year 2000 compliant is defined by PacifiCorp as:

An application, system, or device must be able to correctly process date information across all date ranges without error or malfunction. Date processing includes calculations, comparisons, sorts, and unambiguous displays.

Attachment C

Year 2000 ready is defined by PacifiCorp as:

Meets the criteria to be Year 2000 compliant **OR** its failure to meet this requirement does not impact the function of the application, system, or device.

Throughout the organization a standard approach will be used: inventory, assess, correct, test, and clean management.

1. Complete an inventory of date-sensitive services and devices.
2. Assess the Year 2000-related issues associated with each major component and system identified in the inventory, and set correction priorities and strategies.
3. Correct non-Year 2000 ready devices and systems.
4. Test individual units or components for Year 2000 readiness and then conduct system wide tests to confirm readiness.
5. Establish policies and processes to ensure that systems made Year 2000 ready are maintained ready.

It is acknowledged that these activities are not strictly serial in nature; they can be conducted along parallel paths to reduce the overall time required to complete the process. The business unit will maintain all documentation until they have completed their Y2K efforts, at which time the documentation will be forwarded to the Y2K Project Office for long term storage.

The Project Office, internal auditors, and legal staff will perform periodic reviews of each business unit's project documentation. Business Y2K leads will report their project's status along with any outstanding issues to the project office on at least a monthly basis.

The Year 2000 Project Office will report the overall project status to an executive steering committee on a monthly basis and quarterly to the Board of Directors. The Project Office will also be the focal point for all internal and external Year 2000 Project communications.

PacifiCorp will work closely with others in the industry to share best practices and non-competitive information that will benefit all participants (e.g. EPRI and WEPI). We will also work closely and cooperatively with NERC (North American Electric Reliability Council), WSCC (Western System Coordinating Council) and all other state and federal regulatory agencies.

Attachment D

Application	Assessment	Disposition
EMS	Not Y2K Ready	Renovate/Test by July, 1999
SCADA	Not Y2K Ready	Renovate/Test by July, 1999
MRPS	Not Y2K Ready	Replace by July, 1999
CSS	Y2K Ready	Testing Complete
MARS	Not Y2K Ready	Replace by July, 1999
BARS	Not Y2K Ready	Replace by July, 1999
SUBVIEW	Not Y2K Ready	Renovate/Test Complete
WEATHER	Not Y2K Ready	Renovate/Test Complete
RESCON	Not Y2K Ready	Testing Complete
RMT	Y2K Ready	Testing Complete
REST	Not Y2K Ready	Renovate/Test Complete
METDAT	Y2K Ready	Testing Complete
FMS	Not Y2K Ready	Testing Complete
ELM	Not Y2K Ready	Renovate/Test Complete
STREAM	Y2K Ready	Replace by July, 1999
SEV	Not Y2K Ready	Replace by July, 1999
ORS	Not Y2K Ready	Replace by July, 1999
DMS	Y2K Ready	Testing Complete
MIRS	Y2K Ready	Testing Complete
ETS	Not Y2K Ready	Testing Complete

Hardware	Model	Assessment	Disposition
IBM	9672	Y2K Ready	Test by July, 1999
DEC	5000/1	Y2K Ready	Test by July, 1999
DEC	VAX 6640	Y2K Ready	Test by July, 1999
DEC	Alpha 3000	Y2K Ready	Test by July, 1999
SUN	Sparc 20	Y2K Ready	Test by July, 1999
SUN	SPAC 670	Y2K Ready	Test by July, 1999
SUN	Sparc 10	Y2K Ready	Test by July, 1999
SUN	E5000	Y2K Ready	Test by July, 1999
DEC	Alpha 2100	Y2K Ready	Test by July, 1999

PacifiCorp
Y2k Contingency Plan Summary
CONFIDENTIAL DRAFT
March 3, 1999

This summary discusses the PacifiCorp Y2k contingency plans in four areas vital to utility operation: system dispatching, power plant operation, communications and local service restoration. These plans are all works in progress and should be considered as **draft** versions only. We are sharing this summary strictly to get an honest assessment of our work to date and to assist us in developing the final contingency plan. Consistent with NERC discussions, these contingency plans should be handled as you would any other **confidential** information and guard against any unauthorized disclosure of these draft plans. No copying or further distribution of this document or the information in it is authorized by PacifiCorp.

System Dispatching

Following the WSCC guidelines, PacifiCorp plans to establish a precautionary posture leading into the priority 1 date of December 31, 1999. Steps underway are summarized here:

- The PacifiCorp grid will be operated interconnected during the Y2k transition. Inter-ties would be deliberately opened only during, or immediately following, a system disturbance in order to prevent further cascading and to facilitate restoration.
- Additional personnel will be on hand at control centers to handle any EMS, SCADA, telecommunication or system problems during the transition period. Facilities such as power plants and key major substations will also have additional personnel standing by. Those facilities and the appropriate manning levels are being determined now.
- Backup systems, such as control center UPS and emergency generators will be serviced and tested, as appropriate, prior to the transition period. Emergency generator fuel supplies will be topped off.
- Back-up control center procedures are currently in place.
- Key transmission paths are currently being evaluated to determine appropriate conservative transfer levels during the transition period. Transfer schedules will be limited to these levels coming into the transition period.
- Additional generation will be called up for the transition period to ensure an appropriate amount of spinning reserve above the normal requirement. WSCC studies are being run to determine location and amounts of such additional spinning reserve.
- Provide training for and participate in the NERC Y2k Drill scheduled for April 8, 1999.

In addition to establishing a more robust operating posture for the system under the above steps, contingency plans for dealing with problems that actually develop are under development:

- Contingency plans for dealing with cascading outages resulting in islanding of load and/or generation are covered by existing Black Start and Restoration plans. These plans are in the process of being updated and coordinated with the NWPP. The NWPP Plan is expected to be finalized by Spring 1999. PacifiCorp will conduct training and have copies of this plan available to personnel for immediate reference by the April 8, 1999 NERC Drill.
- A communications contingency plan for partial loss of data and voice-communications systems is being developed. Contingency plans to deal with loss of EMS, SCADA and control system functionality are also under development. . PacifiCorp will also conduct training and have copies of this plan available to personnel for immediate reference by the April 8, 1999 NERC Drill.

Power Plant Operation

The Power Plants will also establish a precautionary posture leading into the priority 1 date of December 31, 1999. Steps underway are summarized here:

- Additional operations and maintenance personnel will staff the plants. Manpower requirements are being determined now.
- Plant personnel will contact local emergency management agencies to establish communications procedures.
- Additional primary fuel supplies will be on site, in appropriate amounts. All critical supplies, such as fuel oil and chemicals, will come into the transition period with tanks topped off.
- Operations personnel will receive training in black start procedures and back-up communications plans. These procedures and plans will be immediately available to personnel after June 30, 1999.
- Emergency generators and batteries will be load-tested and repaired prior to the transition period. Emergency generators will be kept running during the transition period.
- Detailed contingency plans for specific equipment and systems are under development for each plant.

Communications

Communications Department will also establish a precautionary posture leading into the priority 1 date of December 31, 1999. Steps underway are summarized here:

- The company will establish regional Y2k command centers (Portland, Salt Lake City and Casper) and a central communications center (Portland) to coordinate communications and computer service contingency plan execution between the dispatch centers, power plants and other key locations.
- PacifiCorp is continuing to expand its extensive microwave network in 1999. Because this system is self-controlled and has been undergoing extensive analysis for Y2k readiness, the company considers this a reliable alternative to the public telephone network. Emergency power systems will be tested and made ready.
- PacifiCorp's VHF radio network covers a wider area than the microwave system. Through integration of the company's radio and telecommunications network, a radio operator can effectively "dial-up" telephones throughout the PacifiCorp area. Radio units will be deployed at key locations during the Transition Period.
- PacifiCorp is planning to station satellite telephones at system dispatching facilities and key power plants.

Local Service Restoration

Field operations and business center management are implementing the following precautionary actions:

- Business centers and field operations centers will be staffed in anticipation of utilizing manual processes should automated outage information processing systems fail.
- Business centers will back each other up should one center become inoperable or overloaded.
- Company is exploring the benefits and costs of obtaining an additional long distance supplier to provide redundancy.
- Company will establish communications procedures with local emergency agencies including police and fire departments.
- Company will staff field operations centers in anticipation of the possibility of increased outage patrols.
- Field operation centers' emergency power systems will be operational and fully fueled.
- Vehicles will be fully fueled and supervisory personnel will have emergency cash advances.