RESOLUTION NO. 341

A RESOLUTION ADOPTING A YEAR 2000 COMPLIANCE STANDARDS AND POLICIES PROGRAM FOR DEPARTMENTS OF THE CITY OF AURORA.

WHEREAS, the Y-2K, Year 2000 Computer/Electronic problems cause embedded microchips and data in City systems and equipment to function improperly during the Year 2000 century date change; and

WHEREAS the City of Aurora wishes to develop a plan for identifying and containing the risks associated with the technology problem in the interest of public health and safety; and

WHEREAS City County Insurance Services (CIS), the City's insurance carrier, plans to expressly exclude Y2K liability from the coverage agreement with the City as of July 1, 1999; now therefore,

BE IT RESOLVED, that the Aurora City Council enacts a Year 2000 Compliance Standards and Policies program and its attachments.

ADOPTED by the Aurora City Council on this 9th day of March, 1999.

Loretta Scott - Mayor

ATTEST:

Melody Thompson - City Recorder

YEAR 2000 COMPLIANCE STANDARDS AND POLICIES

1.0 Purpose

This policy and procedure provide a formal framework for managing programmable (computer related) systems, embedded microchips and data which may not function properly during the Year 2000 century date change.

2.0 General Policy

a. It shall be the duty and responsibility of each City department to find and fix the Year 2000 problem in accordance with the procedures established in this policy statement. Departments shall also protect their information technology systems from imports of external systems' data which are not Year 2000 compliant. Departments shall make maximum practical use of existing resources. Each department must prepare a plan for correcting the Year 2000 problem within its computer programs and equipment and non-computer related equipment and submit that plan to the City's Year 2000 committee.

b. Year 2000 solutions shall be a City priority. To the extent it is practical to do so, each department shall defer commencing new computer projects until acceptance of its Year 2000 plans by the City's Year 2000 Committee.

c. City departments shall purchase no new software, system, enhancement or equipment that fails to meet Year 2000 standards unless its use will end by 2000.

d. A Year 2000 Committee shall be established to coordinate the City's Year 2000 project which shall be comprised of the Police Chief, Public Works Superintendent and City Recorder/Treasurer.. Among other coordination tasks, the committee shall:

1. Set time lines for assessment, remediation, testing and contingency planning.
2. Make monthly progress reports to the City Council.
3. Work with the County's emergency management coordinator, the Aurora Fire Department, and any other agency deemed appropriate to ensure a comprehensive City-wide emergency management plan.

e. The following will define the term "Year 2000 compliant" for the City of Aurora.

- Information systems designed to be used prior to, during and after the calendar year 2000 will operate without error relating to date data.
- Software and applications will not abnormally end or provide invalid or incorrect results as a result of date data, especially between centuries.
- No value for current date will cause interruptions in desired operations.
- All manipulations of time-related data (dates, durations, days of week, etc.) will produce the desired results for all valid date values within the applications.
- Date elements in interfaces and data storage will permit specifying century unless the date is unambiguous for all manipulations involving that element.

f. City departments shall comply with the Year 2000 standards listed in 4.0 of this policy and shall comply with the time lines established by the Year 2000 Committee for assessment, remediation, testing and contingency planning.

3.0 Policy Guidelines/Procedures

a. Each department shall identify and document core business areas and processes.

b. Each department shall assess and rate the severity of the I impact of Year 2000-induced failures on core business areas and include this assessment and rating in their plan.

c. Each department shall conduct a department-wide inventory of all systems which may be impacted by Year 2000 and document those systems.

d. Each department shall use the department-wide inventory to document and identify, for each system:

1. Links to core business areas or processes
2. Platforms, languages and database management systems
3. Operating system software and utilities
4. Internal and external interfaces, including telecommunications
5. The availability and adequacy of source code and associated documentation.

e. Each department shall:

1. Prioritize system modifications and replacements by a ranking based upon business impact and anticipated failure date.
2. Identify applications, databases, archives and interfaces that cannot be made Year 2000 compliant because of resource and time constraints.

f. Each department shall identify, prioritize and mobilize needed resources.

g. Each department shall develop contingency plans for mission-critical systems. A mission critical system is a system supporting a core business activity or process.

h. Each department shall report monthly on the status of its year 2000 project through the committee on the status of:

1. hardware, operating systems, applications and data for mainframe, mid-range, and desktop systems;
2. interfaces, both incoming and outgoing, including telecommunications;
3. applications and data;
4. the status of their top five (5) prioritized applications.

j. When a department has evaluated and tested its existing information systems and is satisfied that al Year 2000 compliance standards have been met, the committee can certify the department as Year 2000 compliant. A certification letter should be sent to the City Council indicating the steps taken by the department to ensure that it is

Year 2000 co. It is the department manager's responsibility to ensure the department is compliant. In all cases, departments should make efforts to be compliant by September 1999.

4.0 Year 2000 Standards

a. Date Representation

The suggested standard format for dates follows the international standard date notation, which includes a four-digit year. Applications that use or require month and day representation will conform to the following format: YYYYMMDD where YYY = full representation of the year, MM = month (from 01, January, to 12, December), and DD = day of month (between 01 and 31). For example, October 9, 1996 would be represented as 19961009. For applications representing the date in ordinal format, the standard will be YYYYDDD where YYYY = full representation of the year, and DDD is day of year (from 01 to 365 or 366 in a leap year). For example, October 9, 1996 would be 1996283. If additional representation of week, hour, minute and second is required, the information will comply with the international standard ISO 8601:1988, "Data elements and interchange formats - Information interchange - Representation of dates and times".

Databases that are date aware and Year 2000 compliant but do not store dates in the suggested format are acceptable.

b. New Systems

All new systems, whether acquired or developed "in-house", will be year 2000 compliant.

c. Existing Systems

For applications that are currently Year 2000 compliant, no changes need be made. However, if the date does not comply to the new date standard, consideration should be given to changing to the standard when major modifications or revisions are made or when there is a new release of the software.

Departments should check with CIS prior to contracting with third party vendors for either auditing or implementing Year 2000 modifications of their existing systems. Failure to do so may lead to litigation because of a City failure to abide by applicable trade secret laws, confidentiality agreements, licenses and copyright restrictions that apply to software.

d. Contract language

All new contracts for software, hardware or products/systems containing embedded chip microprocessors shall include Year 2000 protection and warranty language as stated in Attachment A-Model Contract Language.

Existing contracts relating to purchase of software, hardware or products/systems containing embedded chip microprocessors shall be reviewed and if necessary revised to include Year 2000 protection and warranty language.

The contract language should include a statement that the contractor will warrant to the agency that any software products delivered under the contract will correctly process date or

date-related data and will store and transmit date data in a format which explicitly and unambiguously specifies the correct century.

For current systems being modified, but not specifically for Year 2000 issues, the contract language should include a statement that the contractor will notify the department if the contractor learns or has reason to believe the hardware or software will not be Year 2000 compliant.

e. Interfaces

If an existing system cannot comply with the suggested date standard and interfaces with another system, both entities must agree in writing to the date format represented in the application. A copy of this agreement should be kept by both parties.

f. Third-party software

Third party vendor application systems using an existing date format that does not comply with the suggested date standard may be used as long as the software is Year 2000 compliant.

g. Attachment A - Contract language

h. Attachment B - Preparation Steps and Inventory

Attachment 1 - Definition of "occurrence" as respects Year 2000 Computer/Electronic problems.

Attachment A
Model Contract Language

The following sections shall be incorporated into contracts and intergovernmental agreements entered into by the City with vendors and business partners. The language shall be included whether or not applicable to the specific contract or agreement.

Representations and Warranties:

1. All computer hardware and software delivered under this contract will, according to the manufacturer, individually and in combination, correctly process, sequence and calculate all date and date related data for all dates prior to, through and after January 1, 2000, and

2. Any software products delivered under this Contract that process date or date related data shall, according to the manufacturer, recognize, store and transmit date data in a format which explicitly and unambiguously specifies the correct century.

Force Majeure:

Neither the City nor the Contractor shall be held responsible for delay or default caused by fire, riot, acts of God, or war where such cause was beyond the reasonable control of the City or Contractor. Contractor shall, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon cessation of the cause, diligently pursue performance of its obligation under this contract. Failure, default or damages related to the change in century shall not be considered to have been caused by fire, riot, acts of God, or beyond the reasonable control of the City or Contractor, respectively.

Year 2000 Compliance Notice:

In the event Contractor learns or has reason to believe that the City's computer hardware or software environment operating within the scope of the Contractor's Work fails to use date format that explicitly specifies century in any date data, Contractor shall promptly advise the City of such failure.

Preparation Steps

1. **Develop a Plan**

The City of Aurora should declare Y2K preparedness a top priority.

- Has the City established a committee with clear criteria for the outcomes of the Plan?
- Has the City adopted a policy to spend the resources that are available to address possible Year 2000 failures based on the prioritization established by the governing body?
- Has the City identified resources available for addressing possible Year 2000 failures?

2. **Inventory**

Prepare a written analysis of the automated systems used by the department and a detailed inventory of all applications, vendor software and interfaces.

- What computers and electronic controls do we depend on?
- What are their manufacturers and model numbers?
- What software are the systems running?

3. **Prioritize**

Prioritize the relative importance of the different automated systems used and identify those most susceptible to Year 2000 failure.

- Has the City identified the most critical technology applications ("mission-critical systems") needed to continue operations?
- Has the City identified the likely fail dates of mission-critical systems?
- Does the City's Y2K preparedness plan address problems related to community infrastructure (911, water, sewer, power, etc.) that the City is responsible to provide?
- Has the City coordinated with other agencies who provide other community infrastructure to ensure their Y2K preparedness plans address the needs of the City?

4. **Research**

Contact manufacturers and ask if the hardware and software used are Year 2000 compliant.

- Do the manufacturers have recommendations, such as testing or upgrades?
- Are there other resources available for addressing possible Year 2000 failures?

5. **Test**

Many systems can be tested by manually setting the calendar ahead to the year 2000. **However, some systems that are not year 2000 compliant cannot be recovered from such a test.**

- Has the City contacted the manufacturer prior to testing to determine whether testing is feasible, and to obtain manufacturer-recommended testing protocols?
- Will the testing be done in a controlled, off-line setting?
- Is the City prepared to replace any system being tested?

6. **Watch**

Midnight between 1999 and 2000 is the critical moment for most of the affected systems.

- Computers and equipment that normally operate at night or with little or no human supervision should be carefully supervised that evening.

- Buildings and facilities that normally need little or no human supervision should be carefully watched by experienced personnel due to risks that thermostats, alarms and controls may stop functioning.

7. **Contingency**

A contingency plan should be in place in the event of a Year 2000 problem. Interruptions of utility services such as electrical power and water on or around January 1, 2000 may occur, as well as communications systems, etc.

- Invest in back up services (gas fired electric generator)
- Inventory other possible service interruptions (communications, etc.) with proposed back up services.

8. **Insurance**

CIS has added an endorsement to the policy entitled "Exclusion of Certain Computer-Related Losses" which states that the inability of a computer or other electronic equipment to properly recognize a particular date or time does not constitute a covered "accident" under this policy. Other coverage information:

- There is coverage under the policy for fortuitous, physical damage to covered equipment meeting the definition of "accident" that may result from such a situation.
- Claims or suits made as a result of the City's failure to supply water, sewer, gas or electricity or the City's failure to supply sufficient water, sewer gas, or electricity to meet the demand is not in the City's coverage agreement.
- Continue to investigate other sources of Y2K liability coverage
- Support State legislation that indemnifies public bodies who have made good faith efforts to avoid year 2000 failures.