



United States  
General Accounting Office  
Washington, D.C. 20548

160919

Accounting and Information  
Management Division

B-279150

July 29, 1998

The Honorable William F. Goodling  
Chairman  
Committee on Education and the Workforce  
House of Representatives

The Honorable Cass Ballenger  
Chairman, Subcommittee on Workforce  
Protections  
Committee on Education and the Workforce  
House of Representatives

The Honorable Harris W. Fawell  
Chairman, Subcommittee on  
Employer-Employee Relations  
Committee on Education and the Workforce  
House of Representatives

The Honorable Peter Hoekstra  
Chairman, Subcommittee on Oversight  
and Investigations  
Committee on Education and the Workforce  
House of Representatives

Subject: Department of Labor: Status of Y2K Remediation of Workers'  
Compensation Systems

In response to your request, we reviewed the efforts made by the Department of Labor's Office of Workers' Compensation Programs (OWCP) to address the Year 2000 computing challenges facing its three workers' compensation programs, administered under the Federal Employees' Compensation Act (FECA), Longshore and Harbor Workers' Compensation Act (LHWCA), and Black Lung Benefits Act (BLBA). The programs reported in fiscal year 1997 that they processed about 207,000 claims and provided approximately \$3 billion in compensation funds for wage-replacement benefits, medical treatment, and vocational and other benefits to eligible workers.

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Our objectives were to report on efforts made by the three OWCP divisions that administer these compensation programs in (1) carrying out their Year 2000 strategies for their respective mission-critical systems and (2) developing contingency plans for business continuity in the event of Year 2000-induced failures. To satisfy these objectives, we reviewed and analyzed key Labor documents on Year 2000 issues, including memoranda, progress reports, project plans, and systems assessment documentation. However, we did not independently verify the accuracy of the department's progress reports for all OWCP mission-critical systems. We used our Year 2000 assessment guidance<sup>1</sup> to assess OWCP's readiness to achieve compliance as well as its business continuity and contingency planning. We also interviewed Year 2000 program managers, system contractor staff, and representatives from OWCP in Washington, D.C., and Philadelphia, Pennsylvania, and representatives of the Office of the Chief Information Officer, the Office of the Chief Financial Officer, and the Office of the Inspector General. We interviewed Department of the Treasury, Financial Management Service (FMS) officials in Philadelphia, Pennsylvania, and Washington, D.C., to document how dates are handled throughout the compensation payment process.

We also requested comments from the Department of Labor on a draft of this letter. Our work was performed from November 1997 through June 1998, in accordance with generally accepted government auditing standards.

## BACKGROUND

On January 1, 2000, many computer systems worldwide could malfunction or produce incorrect information simply because the date has changed. The root of this problem can be traced to the way dates have been recorded and computed by many systems for decades. Computer systems have typically used two digits to represent the year, such as "98" to represent 1998, in order to conserve on electronic data storage and reduce operating costs. By using this two-digit format, however, the year 2000 is indistinguishable from the year 1900, since both would be represented simply as "00." As a result of this ambiguity, systems or application programs, that use dates to perform calculations, comparisons, or sorting may generate incorrect results when working with years after 1999. To mitigate this risk, all organizations—public and private—must identify their mission-critical systems, develop strategies for repair or

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<sup>1</sup>Year 2000 Computing Crisis: An Assessment Guide (GAO/AIMD-10.1.14, September 1997) and Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD-10.1.19, March 1998). -

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replacement, and dedicate sufficient resources to the work, including adequate testing of systems and programs before January 1, 2000.

To assist agencies in addressing the Year 2000 crisis, we have prepared guidance, as mentioned, to help reduce Year 2000 risks by offering a structured, step-by-step approach for reviewing and assessing an agency's preparedness for the year 2000. The assessment guide describes in detail five phases, each of which represents a major Year 2000 program activity or segment. In brief, they are:

- *Awareness*: This phase entails defining the Year 2000 problem and establishing and developing an overall strategy.
- *Assessment*: This phase entails assessing the Year 2000 impact on the enterprise, identifying core business areas, inventorying systems and data exchanges, prioritizing their conversion or replacement, and initiating contingency planning.
- *Renovation*: This phase deals with converting, replacing, or eliminating selected systems and applications.
- *Validation*: This phase deals with testing, verifying, and validating all converted or replaced systems and applications.
- *Implementation*: This phase entails deploying and implementing Year 2000-compliant systems and components and implementing contingency plans, if necessary.

We used the assessment guide in reviewing the Year 2000 progress made by OWCP's three programs administered under FECA, LHWCA, and BLBA. FECA provides federal employees with workers' compensation coverage for injuries sustained or diseases acquired while performing their duties. LHWCA provides similar protection to private sector workers in certain maritime and related jobs. BLBA provides disability compensation and medical expenses to coal miners disabled by pneumoconiosis (black lung disease, which is caused by the habitual inhalation of coal dust), as well as to eligible survivors of miners

disabled by this disease.<sup>2</sup> The divisions that OWCP relies on to administer the three compensation acts in turn rely on four mission-critical systems; table 1 lists these systems and their subsystems.

Table 1: OWCP's Mission-Critical Systems

Division of Federal Employees' Compensation	Division of Longshore and Harbor Workers' Compensation	Division of Coal Mine Workers' Compensation
<p><b><i>Federal Employees Compensation System</i></b></p> <p><u>Subsystems</u></p> <ul style="list-style-type: none"> <li>• Automated Compensation Payment</li> <li>• Case Management</li> <li>• Debt Management</li> <li>• Bill Processing</li> <li>• Periodic Roll Management</li> <li>• Physicians Directory</li> <li>• Rehabilitation Tracking</li> <li>• Chargeback</li> </ul>	<p><b><i>Longshore Case Management System</i></b></p> <p>(No subsystems)</p> <p><b><i>Longshore Special Fund System</i></b></p> <p><u>Subsystems</u></p> <ul style="list-style-type: none"> <li>• Disbursement and Accounting</li> <li>• Assessment</li> </ul>	<p><b><i>Automated Support Package</i></b></p> <p><u>Subsystems</u></p> <ul style="list-style-type: none"> <li>• Black Lung Accounting</li> <li>• Claimant Information Processing</li> <li>• Disability Benefits Processing</li> <li>• Medical Bill Processing</li> </ul>

Source: Department of Labor.

**ACTIONS TAKEN TO MAKE FEDERAL EMPLOYEES' COMPENSATION SYSTEM YEAR 2000 COMPLIANT**

The Division of Federal Employees' Compensation has taken some action to prepare the Federal Employees Compensation System (FECS)—its sole mission-critical system—for the year 2000. Key awareness activities have included promoting the Year 2000 issue, developing a Year 2000 strategy, and appointing a Year 2000 program manager.

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<sup>2</sup>Initially, the Black Lung program was administered by the Social Security Administration under part B of the Coal Mine Health and Safety Act of 1969. In 1972, this act was amended, and jurisdiction of new claims transferred to Labor under part C; in 1997 Labor assumed management and operation of both parts.

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During assessment, the division determined that the interface between the FECS mainframe and the division's network was Year 2000 compliant, but that many of the FECS mainframe subsystem applications were not compliant and were in need of renovation. The division also determined that the mainframe computer's operating system, and the COBOL compiler, were not Year 2000 compliant.

During our visit to the contractor-operated mainframe facility, we were told that both the operating system and compiler had recently been upgraded to vendor-certified compliant versions. The contractor likewise certified in writing that its mainframe hardware was Year 2000 compliant. Also, Year 2000 renovations to the applications were in process and the FECS system renovation is scheduled to be completed in August 1998. The division also maintained a system for tracking this renovation process and documenting progress by subsystem.

The remaining tasks to complete the FECS Year 2000 effort include unit, integration, and system testing, plus independent verification and validation planned for later this year. In March 1998, the division and the mainframe contractor established a test facility for the division's use when renovations are completed. The fully tested and renovated system is scheduled for implementation by January 1999.

#### LABOR ALSO TAKING ACTION ON LONGSHORE AND HARBOR WORKERS' COMPENSATION SYSTEMS

The Division of Longshore and Harbor Workers' Compensation has also taken some action to prepare its two mission-critical systems—the Longshore Special Fund System and the Longshore Case Management System—for the year 2000. It used our Assessment Guide in developing its Year 2000 program. As with the Division of Federal Employees' Compensation, it completed key awareness and assessment activities, finding both of its systems in need of repair. The office also assessed the impact of systems failure, prioritized repair actions, and developed test plans for both systems.

We verified through observation and limited testing that both of the division's mission-critical systems were, in fact, in need of repair. For example, we visited the Longshore program's district office in Philadelphia and tracked the processing of claims through the system from origination to adjudication. During this visit we asked the district office manager to use the system to project and establish benefit payments beyond the Year 2000 for hypothetical beneficiaries to verify whether the system could handle dates past the year

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2000. After each test that we observed, a blank screen appeared on the monitor.

System renovation work had already begun during the course of our review. The division prioritized renovation activities by first renovating its special fund system—its benefits payment system—and next initiating repairs to its case management system. The special fund system was recently implemented, while the case management system is scheduled to be tested later this year, with implementation scheduled for December 1998.

BLACK LUNG SYSTEM DELAYED;  
YEAR 2000 PLANS MODIFIED

The Division of Coal Mine Workers' Compensation until recently had not developed an effective Year 2000 strategy for its one mission-critical system—the Automated Support Package (ASP). Its initial strategy of replacing the noncompliant system that supports the black lung program was risky because the new system was not scheduled for implementation until November 1999, dangerously close to the turn of the century. Further, the majority of the development work on this complex effort had not yet begun on three of its four subsystems. According to the Assistant Secretary for Administration, the decision to replace ASP in November 1999 had as much to do with modernizing an antiquated, inefficient mainframe system as correcting the Year 2000 problem. Thus, the system's development strategy was not originally linked to a specific Year 2000 work schedule.

To meet Year 2000 compliance schedule requirements, the division decided to modify its approach and develop a new strategy. Under the new strategy, the division will continue to develop its replacement system, but the existing ASP will also be repaired and implemented by March 1999. Therefore, in the event that the replacement system is not ready in time, the office plans to have a fully functional, tested, and compliant system available in preparation for the century change.

BUSINESS CONTINUITY AND CONTINGENCY PLANS NOW  
REQUIRED TO AVOID DISRUPTION OF COMPENSATION PAYMENTS

Every federal agency must develop plans to ensure the continuity of its core business functions through the century change. These plans are needed in the event of unforeseen Year 2000-induced failures in internal information systems, as well as potential failures brought about by others, including data exchange partners and infrastructure service providers.

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None of the three OWCP workers' compensation offices have developed business continuity and contingency plans, and were only required to do so by Labor if their respective systems repair work fell substantially behind schedule. Labor was responsive to our concerns regarding this limited contingency planning strategy, and it was subsequently revised. On April 21, 1998, the Chief Information Officer issued an agency directive requiring that all offices use our guide<sup>3</sup> to develop business continuity plans for all critical functions, rather than only for those systems that fall behind their Year 2000 schedules.

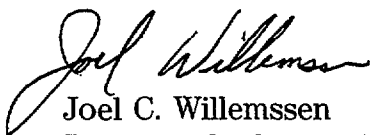
DEPARTMENT OF LABOR'S COMMENTS

In commenting on a draft of this letter, the Assistant Secretary for Employment Standards generally agreed with the contents of the report. The comments are printed as enclosure 1. We have clarified the letter to show that the new ASP replacement system will serve the dual purpose of modernizing the previous mainframe system and resolving the Year 2000 problem. The Assistant Secretary agreed with our conclusion that none of the three OWCP programs had developed contingency plans. However, he stated that following our review, contingency plans for all three OWCP programs had been developed and submitted to the department for review and comment.

We are sending copies of this final report to the Secretary of Labor and other interested parties. Copies will also be made available to others upon request.

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Should you or your staff have any questions concerning this report, please contact me at (202) 512-6253 or David Alston, Assistant Director, at (202) 512-6369. We can also be reached by e-mail at *willemsenj.aimd@gao.gov* and *alstond.aimd@gao.gov*, respectively.



Joel C. Willemsen  
Director, Civil Agencies Information Systems

Enclosure

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<sup>3</sup>GAO/AIMD-10.1.19, March 1998.

COMMENTS FROM THE DEPARTMENT OF LABOR

U.S. Department of Labor

Assistant Secretary for  
Employment Standards  
Washington, D.C. 20210

JUL 20 1998

Mr. Gene L. Dodaro  
Assistant Comptroller General  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Dodaro:

This is in reply to your letter to the Secretary of Labor requesting comments on draft correspondence entitled Department of Labor: Status of Y2K Remediation of Workers' Compensation Systems.

While the draft report is generally accurate and favorable, a minor rephrasing of one section of the correspondence is suggested as follows: When discussing the Black Lung automated support package, the report should note that "the decision to replace the ASP ... had as much to do with modernizing an antiquated, inefficient mainframe system as correcting the Year 2000 problem. Thus the system's development strategy was not originally linked to a specific Year 2000 business continuity plan." We believe this properly reflects the fact that the ASP replacement strategy was developed to address both the inherent shortcomings of the old system and to resolve Year 2000 problems. To ensure continuous operations in the event the new system is not operational by January 1, 2000, the draft report correctly notes that the Black Lung program has developed a strategy to repair the current system and the repairs will be implemented by March 1999.

The draft report also correctly states that, at the time of the review, none of the three OWCP programs had developed contingency plans. ESA agreed with GAO that the programs would develop contingency plans. The plans have been developed for all three OWCP programs and submitted to the Department for their review and comment.

*Working for America's Workforce*

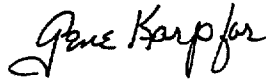


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The GAO review was professionally done and the associated draft correspondence reflects this effort. I believe the report will be improved by adopting the phrasing suggested above.

The Department appreciates the opportunity to provide comments on this correspondence.

Sincerely,



Bernard E. Anderson

(511237)



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