DISASTER RECOVERY PLAN

FOR

DOMTAR CHEMICALS EDP

HP3000 SYSTEMS

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!   !
!   Domtar Inc. is a widely diversified Canadian-owned international !
! corporation whose business is conducted by four operating groups: !
! Pulp and Paper Products, Packaging, Construction Materials and   !
! Chemicals. Consolidated sales of these groups exceeded $1.2   !
! billion Canadian in 1978.   !
!   !
!   The Pulp and Paper Group is one of the largest integrated pulp !
! and paper manufacturers in Canada. It produces newsprint and pulp   !
! and is the largest Canadian producer and marketer of fine and   !
! specialty papers. The Packaging Group manufactures linerboard,   !
! boxboard, corrugated shipping containers and kraft papers. The   !
! Construction Materials Group is one of the largest enterprises of   !
! its kind in Canada. Among its products are decorative and   !
! industrial laminates, particleboard, clay bricks, asphault   !
! shingles, roll roofing and gypsum wallboard. The Chemicals Group   !
! produces salt for home, industrial and ice control uses, a wide   !
! range of tar products, lime products, treated wood and a variety   !
! of specialty chemicals.   !
!   !
!   As Supervisor of Operations for Domtar Chemicals EDP department,!
! I am responsible for hardware and system software on two Series   !
! III's: one owned by the Chemicals EDP Group, the other by the Wood !
! Preserving Division, which we refer to as Woodp. There is one   !
! further installation planned for mid-1980. That site is not   !
! currently considered in this plan.   !
!   !
!   !
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     Notes:

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!                                                                  !
!                  OBJECTIVES OF THE PLAN                          !
!                  =========================                       !
!                                                                  !
!  Protect critical data from accidental loss or destruction      !
!                                                                  !
!  Assure that there is no significant loss of information         !
!                                                                  !
!  Provide a means to resume production in an organized, timely,   !
!     cost effective manner without oversights or delay            !
!                                                                  !
!  Restore functional capability of original host in long term.    !
!                                                                  !
!  * our target is one man-day or less before resumption of all    !
!  production operations.                                          !
!                                                                  !
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!                                                                      !
!                      OVERVIEW OF THE PLAN                            !
!                      ====================                            !
!                                                                      !
!  - determine critical applications to be processed                  !
!                                                                      !
!  - assure that current version of critical data is available for    !
!    timely transfer to another system                                !
!                                                                      !
!  - assure that another system is readily available to accept data   !
!    on a priority basis                                              !
!                                                                      !
!  - see that someone has both the knowledge & authority to           !
!    coordinate the recovery                                          !
!                                                                      !
!  - implement long-term recovery of original host system             !
!                                                                      !
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     Notes:
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!                                                               !
!        DETERMINE CRITICAL APPLICATIONS TO BE PROCESSED        !
!        -----------------------------------------------        !
!                                                               !
!    - within Domtar as part of our annual budgeting exercise,  !
!    every system either proposed or in production is evaluated !
!    against every other.                                       !
!                                                               !
!    - this gives us a measure of the relative import of each   !
!    system and helps us to decide the most critical applications!
!    and the impact of not processing them.                     !
!                                                               !
!    - top management gives the "stamp of approval" to the final!
!    budget.                                                     !
!                                                               !
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!                                                                      !
!       ASSURE THAT CURRENT VERSION OF CRITICAL DATA IS AVAILABLE      !
!       ------------------------------------------------------------   !
!                 FOR TIMELY TRANSFER TO ANOTHER SYSTEM                !
!                 ------------------------------------------------     !
!                                                                      !
!                                                                      !
!   - DATA BASE TRANSACTION LOG                                        !
!         _ will be implemented with IT1918                           !
!         - will be run on tape due to                                !
!           - much higher transportability                            !
!           - secure from system problems such as head crash          !
!         - scheduled to be re-used daily                             !
!         - becomes redundant after evening backup                    !
!                                                                      !
!   - DBUNLOAD of each production data base                            !
!         - done daily                                                !
!         - kept for period of one week in tape cabinet in            !
!             computer room                                            !
!         - chosen rather than DBSTORE                                 !
!             - gives potential of DBLOAD on scheduled basis          !
!                                                                      !
!   - FULL SYSDUMPS                                                    !
!         - done daily after hours with limits at 1,0                 !
!         - designated by type and kept according to type            !
!         - will be lockworded after IT1918 is installed              !
!                                                                      !
!     * Every attempt is made to see that two copies of every         !
!   production file exist on tape at any given point in time to       !
!   compensate for the bad tape which might be discovered on a reload,!
!   etc. The dbunload and sysdump tapes are physically stored in      !
!   different locations for the same reason.                          !
!                                                                      !
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     Notes:
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!                                                                      !
!                         FULL SYSDUMPS                                !
!                                                                      !
!    - WEEKLY ON-SITE    (4xx series)                                  !
!       - dumped first working day of week                            !
!       - kept in vault for one month                                 !
!    - WEEKLY OFF-SITE   (5xx series)                                  !
!       - dumped second working day of week                           !
!       - placed in fire-resistant vault off-floor                    !
!               immediately                                           !
!       - sent to site of alternate host next day                     !
!       - kept for one month                                          !
!    - DAILY  ON-SITE    (2xx series)                                 !
!       - dated to weekly on-site sysdump                             !
!       - kept in vault for one week                                  !
!    - MONTHLY OFF-SITE (8xx series)                                  !
!       - dumped at end of production month                          !
!       - placed in vault overnight                                   !
!       - sent to remote data bank next day                          !
!       - kept for one quarter                                        !
!    - MONTHLY ON-SITE   (6xx series)                                 !
!       - dumped day after Monthly off-site                          !
!       - kept in vault for one quarter                              !
!    - YEARLY OFF-SITE   (8yy series)                                 !
!       - dumped at end of production year                           !
!       - placed in vault overnight                                   !
!       - sent to remote data bank next day                          !
!       - kept for five years                                        !
!                                                                      !
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     Notes:
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!                                                                             !
!            ASSURE THAT ANOTHER SYSTEM IS READILY AVAILABLE                   !
!            --------------------------------------------------               !
!                                                                             !
!    locate a backup site                                                     !
!    taking into consideration:                                               !
!                                                                             !
!        - system requirements                                                !
!                                                                             !
!        - physical site                                                      !
!                                                                             !
!        - hardware compatibility                                             !
!                                                                             !
!        - software compatibility                                             !
!                                                                             !
!        - telecommunications facilities                                      !
!                                                                             !
!        - other supplies                                                     !
!                                                                             !
!        - supporting departments                                            !
!                                                                             !
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     Notes:
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!                                                                          !
!                        SYSTEM REQUIREMENTS                               !
!                                                                          !
! - available processing time for on-line                                  !
!                                                                          !
!    - exists because production and testing are prioritized               !
!      so lower priority jobs can be held back                             !
!                                                                          !
! - very high teleprocessing to batch ratio                                !
!                                                                          !
!    - only two batch programs run daily on Chemicals system               !
!      for combined wall time of less than 10 minutes                      !
!                                                                          !
!                                                                          !
! - disk space                                                             !
!                                                                          !
!    - available due to prioritization of applications                     !
!                                                                          !
!    - lower priority applications kept on tape until loadable             !
!                                                                          !
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!                                                                        !
!                          PHYSICAL SITE                                 !
!                                                                        !
!                                                                        !
!   - assets of both within Domtar Chemicals                             !
!                                                                        !
!   - physical separation of 24 km (15 mi)between sites;                 !
!     30 min by car                                                      !
!                                                                        !
!   - office space readily available near either site                   !
!                                                                        !
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!                                                                        !
!                       HARDWARE COMPATIBILITY                           !
!                                                                        !
!   - 1 Megabyte of memory                                               !
!                                                                        !
!   - 1 Mag tape drive                                                   !
!                                                                        !
!   - 32 ports (numbered 20-35 & 40-55 for ease of use)                  !
!                                                                        !
!   - 1 printer ( 200 l.p.m. vs 425 l.p.m.)                              !
!                                                                        !
!   - 3 discs                                                            !
!                                                                        !
!         - 1 x 15mb HP7905 system disc                                  !
!                                                                        !
!         - (1 x 50mb HP7920 + 1 x 120mb HP7925)                         !
!           vs (2 x 120mb HP7925)                                        !
!                                                                        !
!                                                                        !
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  Notes:
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!                                                                         !
!                    SOFTWARE COMPATIBILITY                               !
!                                                                         !
!   - COBOL, FORTRAN, SPL, IMAGE/QUERY, ADAGER/3000                       !
!        on both systems                                                  !
!                                                                         !
!   - QEDIT, BASIC, SCIENTIFIC LIBRARY on Chemicals system               !
!                                                                         !
!   - KSAM, ASK/3000, TAPS on Woodp system                               !
!                                                                         !
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     Notes:
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!                                                                             !
!                        TELEPROCESSING FACILITIES                            !
!                                                                             !
!   - have 2 Dial-up lines on Chemicals vs 3 Dial-up on Woodp                 !
!                                                                             !
!   - will acquire 4 x 300-baud dial-up lines on each system                  !
!                                                                             !
!      - facilitates user transfer from one system to another                 !
!                                                                             !
!   - plan to acquire 2400-baud DS3000 lines                                  !
!                                                                             !
!      - will be required for third system                                    !
!                                                                             !
!      - plan remote Job to copy system accounting structure to other         !
!           system on planned basis each time major change is made            !
!                                                                             !
!   - looking into Packet Switching using "black box" approach                !
!                                                                             !
!       - allow users to dynamically switch from one system to another        !
!          on instructions received in critical situation                     !
!                                                                             !
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   Notes:
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!                                                                 !
!                        OTHER SUPPLIES                           !
!                                                                 !
!  - must still be received if Corporate EDP destroyed            !
!        - Sifto tapes provided by Corporate EDP                  !
!                                                                 !
!  - monthly Statement forms provided by user                     !
!        - user responsible to supply even in disaster            !
!                                                                 !
!  - terminals for systems & programming staff                    !
!        - requirements in supplier files                         !
!          *  not included in this paper                          !
!        - can be purchased from numerous suppliers               !
!          -i.e. Dec VT52, LA120 & LS120, HP264X, Hazeltine       !
!             1400 & 1552, & Perkin-Elmer Owl 1200 terminals.     !
!                                                                 !
!  - furniture & office equipment                                 !
!        - requirements in supplier files                         !
!          *  not included in this paper                          !
!                                                                 !
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!                                                                  !
!                    SUPPORTING DEPARTMENTS                        !
!                                                                  !
!  - contacted every six months to reconfirm their role in        !
!    supporting a recovery                                         !
!                                                                  !
!    - major users thru systems analysts                          !
!                                                                  !
!    - Corporate EDP by operations staff                          !
!                                                                  !
!    - telecommunications by operations staff                     !
!                                                                  !
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!                                                                         !
!         ASSURE THAT SOMEONE HAS KNOWLEDGE & AUTHORITY                    !
!         ----------------------------------------------                   !
!                 TO COORDINATE THE RECOVERY                               !
!                 -----------------------------                            !
!                                                                         !
!    - formalize plan and have it approved                                !
!                                                                         !
!    - choose coordinator and alternatte                                  !
!                                                                         !
!    - train personnel in plan                                            !
!                                                                         !
!    - authorize coordinator's control over recovery process              !
!                                                                         !
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!                                                                   !
!              IMPLEMENT LONG-TERM RECOVERY                         !
!              -------------------------------                      !
!                                                                   !
!   - move production back to original facilities                   !
!     (or replacement)                                              !
!                                                                   !
!   - reinstate lower priority functions                            !
!                                                                   !
!     - full testing                                                !
!                                                                   !
!     - training                                                    !
!                                                                   !
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   Notes:
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!                                                                        !
!                              THE PLAN                                  !
!                              ========                                  !
!                                                                        !
!  SECURITY GUARDS CALL IN A PROBLEM TO COORDINATOR                      !
!                                                                        !
!  - first call is to Supervisor of Operations or alternate             !
!       - normally Computer Operator is designated alternate             !
!                                                                        !
!  COORDINATOR ALERTS OTHERS                                             !
!                                                                        !
!  - EDP Manager                                                         !
!       - advises top management, insurance, auditing, legal &           !
!         public relations                                               !
!  - Operators                                                           !
!       - move most current available tapes to new host system          !
!  - Telecommunications                                                  !
!       - to help confirm proper implementation of current lines        !
!       - to acquire new lines as required                              !
!  - Systems Analysts                                                    !
!       - to advise major users of their status and what is required    !
!         of them to help recover the system completely                 !
!  - Supervisor of Systems & Programming                                !
!       - to advise his personnel on changes required in location and   !
!         function                                                       !
!  - Corporate EDP                                                       !
!       - make arrangements to change routine regarding input from      !
!         IBM/370 system                                                 !
!  - Other users who buy EDP service from Chemicals EDP.                 !
!       - financial model users, Treasury, etc.                         !
!                                                                        !
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!------------------------------------------------------------------------!
!                        THE PLAN (cont'd)                               !
!                        ==================                              !
!                                                                        !
! COORDINATOR SUPERVISES RECONSTRUCTION OF SYSTEM                        !
!                                                                        !
! - perform if alternate host required:                                 !
!     - load Jcl file to create account structure from tape             !
!     - remove passwords from MANAGER.SYS                                !
!     - stream Jcl file just loaded                                      !
!     - restore passwords to MANAGER.SYS                                 !
!     - verify that production accounts have been loaded                 !
!     - set UDC's as noted on system console                            !
!     - store Jcl listings with passwords in locked area                !
! - restore all production files & data bases                           !
!       note: 2 levels of SL only in case going to foreign system       !
! - process any existing transaction tapes against data bases           !
! - restore third-party software as required                            !
!     (ADAGER/3000,QEDIT,ASK/3000,TAPS)                                  !
! - advise systems analysts to verify data for respective users         !
!     and have them advise users to re-enter any transactions which     !
!     have been lost.                                                    !
! - advise users with whom operations has direct access that system     !
!     is available for their use.                                       !
! - contact suppliers to order sufficient supplies to carry on.         !
!                                                                        !
! COORDINATOR PLANS MOVE BACK TO PRIMARY HOST SYSTEM IF NECESSARY        !
!                                                                        !
! - get authorization to rebuild if necessary and re-equip              !
! - prepare to follow procedure similar to above when the original      !
!     host is again available.                                          !
!                                                                        !
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     Notes:
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!                                                                        !
!                           RESULTS                                      !
!                           =======                                      !
!                                                                        !
!    ** This plan is just being formalized. We have tested the          !
! portion to piggyback account structures from one system onto          !
! another and it performs as expected. It writes on the console a       !
! list of which users require the setting of a catalog, but is not      !
! yet sophisticated enough to say which catalog must be set.            !
!                                                                        !
!    We plan to test this system at least twice per year to assess      !
! its effectiveness and fill in any weak points BEFORE the disaster     !
! strikes. We anticipate the major problem - the one over which we      !
! have least control - would be with telecommunications.                !
!                                                                        !
!    The program to create the Jcl file is on the swap tape under the   !
! name "PIGYBAK".                                                        !
!                                                                        !
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   Notes:
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