

OHIO DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF RECLAMATION

\*\* Policy/Procedure Directive \*\*

Engineering 88-2

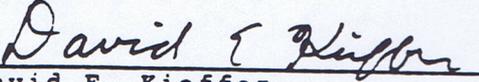
SUBJECT: SCS DAMS 2 Approved Rainfall Distribution  
EFFECTIVE: July 1, 1988  
PURPOSE: To insure consistent and correct use of the DAMS 2 program by using the approved SCS 10-year 24-hour Type II design storm.

In reference to ORC 1501:13-9-04, use of the SCS DAMS 2 (Structure Site Analysis Computer Program) is encouraged for developing inflow hydrographs and corresponding storage-discharge relationships dam site to flood route the hydrographs through existing or potential reservoirs in coal mining operations.

When using DAMS 2, a type II design storm is the only approved rainfall distribution to be used in the program. The program applies to watersheds of 20 acres or more. The program is able to accommodate the design and analysis of systems of dams in series thereby allowing it to calculate the effects of known upstream storage. Permanent haulroad crossings, permanent impoundments and incised impoundments in areas where AOC requirements allow can be calculated in series with the lower impoundment when their approximate location and design characteristics are known.

When upstream temporary storage is expected to be built and relocated as the mining progresses making location and hydraulic characteristics unknown at the time of permitting, up to 50% of the inflow hydrograph may be reduced by using the Engineering Field Manual Chapter 11-55a table. This table shows the ratio of temporary storage volume to total runoff of the watershed and can be used to calculate an equivalent temporary upstream storage which must be maintained when a reduced inflow hydrograph is used.

If an operator chooses to use this table to calculate temporary storage when the permit is submitted, a provision to rerun DAMS 2 in series once the temporary storage final location and size are known during mining will be required. This rerun of the DAMS 2 program in series with the main pond must be run prior to final grading and resoiling.

  
David E. Kieffer

cc: All Regulatory Personnel  
OSM