VIII.3.3-RES-SNGL-S-NDUC26 SUBROUTINE NDUC26

Description

Subroutine NDUC26 computes outflow from an induced-surcharge relation when the pool is rising and outflow from various evacuation procedures when the pool is falling

Calling Sequence

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CALL NDUC26 (ELVSUR,QISUR,ELVFAL,PAKQ,PEAKEL,OPTEV,EVACEL,GATE,EVACQ,
             POOL,FLOIN,OUTFLO,STOR,ELEV,SURMIN)
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Argument List

Argument	Input/ Output	Type	Dimension	Description
ELVSUR	Input	R*4	NEQSUR	Elevation values for elevation versus required inflow relation
QISUR	Input	R*4	NEQSUR	Required inflow for entering the surcharge relation when the pool elevation is between specified upper and lower elevations
ELVFAL	Input	R*4	NUMVAL	Array of pool elevations or sets of elevations with elevations in ascending order in each set; may be used alone or combined with peak outflows or peak pool elevations in a decision table that defines the evacuation option; rule curve elevations in the array are defined as -999.0 and rule curve plus an addition is defined by adding the addition to -999.0; the addition can be positive or negative
PEAKQ	Input	R*4	NUMVAL	Array of peak outflows or sets of outflows with peak outflows in ascending order in each set; used alone or combined with pool elevations or peak elevations in a decision table that defines the evacuation option
PEAKEL	Input	R*4	NUMVAL	Array of peak pool elevations or sets of peak elevations with elevations in ascending order in

Argument	Input/ Output	Type	Dimension	Description
				each set; used alone or combined with peak outflow in a decision table that defines the evacuation option
OPTEV	Input	R*4	NUMVAL	Array of evacuation options defined by the decision table involving one or more of the ELVFAL, PEAKQ or PEAKEL arrays; option values range from 1 to 10 and are defined in the documentation for subroutines EVAA26 and EVAB26
EVACEL	Input	R*4	NELEV	Array of pool elevations for three-way relation of pool elevations, gate openings and dam discharges
GATE	Input	R*4	NGAT	Gate openings for three-way relation
EVACQ	Input	R*4		Double array (NGATE, NELEV) of discharge values corresponding to EVACEL and GATE values; for each GATE value there are NELEV pairs of pool elevation and discharge values; the pool elevations are the same for all GATE values; dam discharges (EVACQ) must include maximum generation and/or sluice discharges if used
POOL	Input	R*4	NPOOL	Array of pool elevations for three-way induced surcharge relation of pool elevations, mean inflows and dam discharges; pool elevations are the same for all values of inflows
FLOIN	Input	R*4	NFLOIN	Array of inflow values used as parameter in induced surcharge relation
OUTFLO	Input	R*4		Double array (NFLOIN, NPOOL) of outflows for the induced surcharge relation; there are NPOOL pairs of pool elevations and outflow values for each FLOIN value
STOR	Input	R*4	NSE	Storages for pool elevation

Argument	Input/ Output	Type	Dimension	Description
				versus storage relation
ELEV	Input	R*4	NSE	Pool elevations for elevation versus storage relation
SURMIN	Input	R*4	1	Minimum outflow shown on induced surcharge relation; may be maximum generation discharge for a power dam but could be a greater or lesser value

Dimension variables are in common blocks SURG26 and RESV26.