

### IX.3.3C-SYSTEM-MOD151 COMMON BLOCK MOD151

#### Purpose

Common block MOD151 contains reservoir regulation information obtained from the SSARREG MOD [[Hyperlink](#)] for Operation SSARRESV [[Hyperlink](#)].

The regulation information can be provided for a maximum of 2 reservoirs with a maximum of 300 points for each reservoir. Each point consists of 3 values which are a regulation time, a regulation value and a regulation option. All the values in the regulation plan are stored in English units.

#### Listing

COMMON /MOD151/ RRC(907,2)

#### Description of Variables

<u>Variable</u>	<u>Type</u>	<u>Dimension</u>	<u>Word Position</u>	<u>Description</u>
RRC(1,i)	I*4	1	1	Number of words in this portion of the array (7 + number of points * 3)
RRC(2,i)	I*4	1	2	Scan index from last word used
RRC(3,i)	I*4	1	3	Effective date when the regulation plan from this MOD is to be used
RRC(4,i)	A*4	2	4	Operation name of the SSARRESV Operation for which this regulation MOD is to be used
RRC(6,i)		1	6	Not used
RRC(7,i)	I*4	1	7	100; indicates this array is for reservoir regulation

The following 3 values are repeated for each point:

RRC(8,i)	I*4	1	8	Time (units of HR)
RRC(9,i)	R*4	1	9	Regulation value; reservoir outflow, reservoir elevation or reservoir storage
RRC(10,i)	I*4	1	10	Regulation option in coded form: 0 = FREEFLOW; value not

<u>Variable</u>	<u>Type</u>	<u>Dimension</u>	<u>Word Position</u>	<u>Description</u>
				used
			1 = SETQ;	outflow specified (units of CFS)
			2 = SETH;	elevation specified (units of FT)
			3 = SETS;	storage content specified (units of ACFT)
			4 = SETDQ;	storage change given in terms of inflow-outflow difference (units of CFSD/DAY)
			5 = SETDH;	elevation change per day (units of FT/DAY)
			6 = SETDS;	storage content change per day (units of ACFT/DAY)

Notes:

The regulation time must be in ascending order, however, consecutive values of equal regulation times are allowed.

A pair that bracket a given run time in a forecast run will be used to generate the regulation option. If several equal regulation times are specified and are equal to a specific run time, the regulation option corresponding to the first regulation time will be used.

For a single reservoir, the regulation information is stored in words RRC(1,1) to RRC(907,1). For a 2 reservoir system, the regulation information for the upstream reservoir is stored in words RRC(1,1) to RRC(907,1) and the regulation information for the downstream reservoir is stored in words RRC(1,2) to RRC(907,2).

For a station backwater affected by a downstream reservoir, only one regulation plan for the downstream reservoir is allowed and the regulation information is stored in words RRC(1,1) to RRC(907,1).