Table AR.3.3

80-705

CLASSIFICATION OF EQUATIONS FOR DISSCC

LEVEL EQUATIONS	INITIAL CONDITIONS AND SPECIAL FUNCTIONS	RATE EQUATIONS WITH ASSOCIATED CONSTANTS	AUXILLIARY EQUATIONS WITH ASSOCIATED CONSTANTS
HEAT H.K=H.J+DT*(HINR.JK-HOUTR.JK)	H=5.2 HINR=0 FD=1. LOGFD=0 FDTAB=0/-0.03/-0.11/-0.38/-1.00/ -1.80/-2.17/-2.51/-2.60/ -3.28/-3.84/-4.0/-4.0/-4.0/ -4.0/-4.0/-4.0 LOGT=0 TIME=1. SHLR=0 HOUTR=0 MTEMP=26. BFTEMP=32.	HINR.KL=DCP*FD.K DCF=.278/.167/.129/9.496E-2/.094/ 9.232E-2/8.580E-2/8.276E-2/ 7.770E-2/7.391E-2/7.055E-2/ 6.934E-2/6.697E-2/6.105E-2/ 5.240E-2/5.003E-2/4.167E-2/ 2.994E-2/2.309E-2/1.556E-2/ 7.831E-4 SHLR.KL=2E-4*(H.K-4.0)-2.4E-4 HOUTR.KL=DELAY3(SHLR.JK,DSHF) DSHF=100. STEMP=20.	FD.K=EXP(2.303*LOGFD.K) LOGFD.K=TABLE(FDTAB,LOGT.K,0,8,25) LOGT.K=LOGN(TIME.K)/2.303 MTEMP.K=(H.K-4.0)/0.2+STEMP BFTEMP.K=32.+2*(MTEMP.K-26.)
THERMAL EXPANSION TE.K=TE.J+DT*(TER.JK)	TE=0 TER=0.423	TER.KL=UEC*(HINR.JK-HOUTR.JK)/0.2 UEC=0.9	
COMPACTION LENGTH CL.K=MCL.J-LPV.J	CL=1.		LPV.K=BMCL+PVPS.K-PVDC.K MCL.K=BMCL+ACLS.K BMCL=485./315./171./166./146./138./ 132./109./107./95.5/77.6/70.9/ 60./58.8/52.9/45.5/34.7/28.6/ 24.2/18.0/7.75
PORE VOLUME PRODUCED BY SOLUTIONING PVPS.K=PVPS.J+DT*(BDRUA.JK)/DA	PVPS=0 DA=7.9E10 NC=1. CC=5.00/4.66/4.00/3.20/2.77/1.73/ 1.46/.974/.836/.748/.661/.558/ .541/.395/.254/.290/.172/9.796E-2 4.302E-2/1.969E-2/1.652E-3 NEC=-1.	BDRUA.KL=FIFGE(MBFA,ACDR.K,ACDR.K, MBFA) MBFA=3E12	OPTION: WITH CONSTANT BPH ACDR.K=RCVR.K*NC.K RCVR.K=(3E7*BPH*RCW*RCW*RCW*CTL)/ (12.*BV*CPL) BPH=2E6 RCW=1.111E-4/1.0E-2/7.774E-3/ 5.634E-3/4.323E-3/3.912E-3/ 2.959E-3/2.131E-3/1.942E-3/ 1.265E-3/1.205E-3/1.0E-3/ 9.472E-4/6.844E-4/6.238E-4/ 4.136E-4/3.333E-4/2.968E-4/ 2.270E-4/1.852E-4/1.383E-4/ 1.111E-4/1.0E-4/1.0E-5 CTL=6E5 BV=1E-2 CPL=1E4 OPTION: WITH DECAY of BPH ACDR.K=DCBPHA.K*NBPH*NC.K/(1.+ (DCBPHA.K*DCBPH.K*NC.K)) RCVR.K=ACDR.K/NC.K DCBPHA.K=(3E7*RCW*RCW*RCW*CTL)/ (12.*BV*CPL) DCBPHB.K=NBPH/MBFA NBPH=2E6 OPTION 1 NC.K=DA*PVDC.K/(RCW*CTL*CPL) OPTION 2 NC.K=CC*FIFGE(1E4,AVNEC.K,AVNEC.K, 1E4) AVNEC.K=MAX(NEC.K,-NEC.K) NEC.K=TE.K-CL.K BDRAT.K=BDRUAC.K/BDRUA.K
PORE VOLUME DESTROYED BY COMPACTION PVDC.K=PVDC.J-DT*(LPVCR.JK)	PVDC=1. EVTAB=1.15E19,7.08E18,4.47E18,2.8 E18,1.78E18,1.26E18,8.91E17, 6.61E17,5.01E17,3.80E17,3.02 E17	LPVCR.KL=LPV.K*EXP(-2.303*ELP*3E7 *DT/EVISC.K)/DT-LPV.K/DT ELP=1.3E8	EVISC.K=TABLE(EVTAB,BFTEMP.K,0, 250,25)
SOLUTION OPENINGS SO.K=SO.J+DT*BDRUA.K	SO=1.		ACLS.K=SO.K/SA.K SA.K=DA LNVFU.K=0.33*LOGN(SA.K)-0.46 SCDIA.K=2.*EXP(LNVFU.K)
PORE VOLUME PRODUCED BY SOLUTIONING WITH CLOSURE PVPSC.K=PVPSC.J+DT*(BDRUAC.JK)/DA	PVPSC=0 NECC=-1.	BDRUAC.KL=FIFGE(MBFA,ACDRC.K, ACDRC.K,MBFA)	OPTION: WITH CONSTANT BPH ACDRC.K=RCVR.K*ANCC.K ANCC.K=(LPVC.K/MCLC.K)*NCC.K OPTION: WITH DECAY OF BPH ACDRC.K=DCBPHA.K*NBPH*ANCC.K/(1.+ (DCBPHA.K*DCBPHB.K*ANCC.K)) RCVRC.K=ACDRC.K/NCC.K OPTION 1 NCC.K=DA*PVDCC.K/(RCW*CTL*CPL) OPTION 2 NCC.K=CC*FIFGE(1E4,AVNECC.K, AVNECC.K,1E4) AVNECC.K=MAX(NECC.K,-NECC.K) NECC.K=TE.K-CLC.K
PORE VOLUME DESTROYED BY COMPACTION WITH CLOSURE PVDCC.K=PVDCC.J-DT*(LPVCRC.JK)	PVDCC=1.	LPVCRC.KL=LPVC.K*EXP(-2.303*ELP* 3E7*DT/EVISC.K)/DT-LPVC.K /DT	PVRATC.K=PVDCC.K/MCLC.K
SOLUTION OPENINGS WITH CLOSURE SOC.K=SOC.J+DT*BDRUAC.JK	SOC=1.		LNVFC.K=0.33*LOGN(SOC.K)-0.46 SCDIAC.K=2.*EXP(LNVFC.K)
COMPACTION LENGTH WITH CLOSURE CLC.K=MCLC.J-LPVC.J	CLC=1.		

80-705