

IN SEPTEMBER 1982 THE VERIFICATION EFFORT WAS EXPANDED BY PG&E BY INCLUDING A QUALITY ASSURANCE AUDIT OF CERTAIN CONSTRUCTION ACTIVITIES.

IN DECEMBER 1982 PG&E PROPOSED A THREE-STEP LICENSING PROCESS FOR DIABLO CANYON UNIT 1 WHICH WAS APPROVED BY THE COMMISSION. IN THIS THREE-STEP PROCESS THE REINSTATEMENT OF THE LOW POWER LICENSE WAS TO BE ACCOMPLISHED IN TWO STEPS:

STEP 1 TO AUTHORIZE THE LOADING OF FUEL INTO THE REACTOR VESSEL AND TO PERFORM COLD SYSTEM TESTING, THAT IS THE REACTOR IS IN THE SUBCRITICAL CONDITION AND THEREFORE NO FISSION PRODUCT IS GENERATED,

STEP 2 TO AUTHORIZE CRITICALITY AND OPERATION AT A POWER LEVEL UP TO 5 PERCENT, THAT IS COMPLETE REINSTATEMENT OF THE SUSPENDED LOW POWER LICENSE.

THE FULL POWER LICENSE DECISION WOULD BE STEP 3 AFTER COMPLETION OF THE PHASE II ACTIVITIES I.E., AND MEETING ALL OTHER PERTINENT REQUIREMENTS LICENSING.

THROUGHOUT THE DESIGN VERIFICATION EFFORT THE IDVP AND PG&E REPORTED TO THE NRC IN SEMI-MONTHLY REPORTS ON THE STATUS OF THEIR ACTIVITIES, IN PARTICULAR ON THE IDENTIFICATION OF NEW CONCERNS. IN ADDITION, THE IDVP ISSUED IN EXCESS OF 60 INTERIM TECHNICAL REPORTS (ITRs) AND CERTAIN OTHER REPORTS ON QA AUDITS ISSUED PRIOR TO APRIL 1982. WHENEVER THE VERIFICATION OF A PARTICULAR DESIGN ASPECT OR PROGRAM EVALUATION HAD

BEEN SUFFICIENTLY COMPLETED TO ALLOW THE IDVP TO REACH A CONCLUSION AN ITR WAS ISSUED ON THAT ASPECT. THE NEED FOR THESE ITRs AROSE BECAUSE OF OUR SPECIFIC REQUIREMENT FOR INDEPENDENCE BETWEEN THE IDVP AND PG&E PRIOR TO ANY CONCLUSIONS BY THE IDVP.

THE IDVP ISSUED A FINAL REPORT FOR THE DESIGN VERIFICATION EFFORT FOR WHICH INCLUDED AN EVALUATION OF ALL DESIGN ERRORS WHICH I WILL DISCUSS SHORTLY, AND THE BASIC CAUSE FOR THESE ERRORS. THE REPORT WAS ISSUED AND AMENDED FROM MAY 1983 TO OCTOBER 1983. PG&E PROVIDED FINAL REPORTS FOR ITS ACTIVITIES UNDER PHASE I AND PHASE II WHICH WERE ISSUED AND AMENDED FROM SEPTEMBER 1982 TO OCTOBER 1983.

ALTHOUGH THE DESIGN VERIFICATION EFFORTS WERE STILL ONGOING, THE NRC DETERMINED IN MID 1983 THAT THE PROGRAMS, BOTH THE IDVP AND THE ITP, WERE SUFFICIENTLY COMPLETE FOR THE STAFF TO PREPARE A SAFETY EVALUATION OF THE DESIGN VERIFICATION PROGRAM AND ITS FINDINGS. THE STAFF EVALUATION WAS ISSUED ON AUGUST 5, 1983 AS A SUPPLEMENT TO THE STAFF'S SAFETY EVALUATION REPORT. FURTHER STAFF EVALUATION AND RESOLUTION OF CONCERNS IDENTIFIED IN THIS REPORT SUBSEQUENTLY ISSUED ON OCTOBER 14, 1983 AND ON DECEMBER 23, 1983 AS ADDITIONAL SUPPLEMENTS.

BEFORE PRESENTING THE STAFF'S CONCLUSIONS FROM AN SAFETY EVALUATION I WILL BRIEFLY DISCUSS THE DESIGN VERIFICATION PROGRAM METHODOLOGY EMPLOYED.

THE IDVP CONDUCTED ITS INITIAL DESIGN VERIFICATION ON THE BASIS OF INFORMATION ON A PARTICULAR STRUCTURE, SYSTEM, OR COMPONENT THAT HAD BEEN PROVIDED BY THE LICENSEE. INFORMATION WAS EVALUATED WITH RESPECT TO THE LICENSING CRITERIA AND COMMITMENTS AS THEY ARE STATED IN THE FINAL SAFETY ANALYSIS REPORT AND IN ANY OTHER LICENSING DOCUMENTS FOR DIABLO CANYON. THIS VERIFICATION EFFORT WAS PERFORMED BY THE IDVP ON THE BASIS OF INFORMATION PROVIDED BY PG&E BUT WITHOUT ANY INTERACTION WITH PG&E.

DURING THIS INITIAL VERIFICATION, THE IDVP RAISED MANY QUESTIONS AND CONCERNS. FOR EACH AN ERROR OR OPEN ITEM, CALLED EOIs, FILE WAS ESTABLISHED, MAINTAINED AND REPORTED IN SEMI-MONTHLY REPORTS. THESE EOIs FALL INTO THREE BROAD CATEGORIES. SOME EOIs WERE THE RESULT OF INSUFFICIENT INFORMATION OR OF A MISUNDERSTANDING BY THE IDVP. THEY WERE RESOLVED ON THE BASIS OF ADDITIONAL