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REGION VISE

Mr. John B. Martin, Regional Administrator Office of Inspection and Enforcement U.S. Nuclear Regulatory Commission Region V 1450 Maria Lane, Suite 210 Walnut Creek, CA 94596-5368

Subject: Palo Verde Nuclear Generating Station (PVNGS) Unit 1 Docket No. STN 50-528 (License NPF-41) Special Report 1-SR-86-085 File: 86-020-404

Dear Mr. Martin:

Attached please find a Special Report (1-SR-86-085) prepared and submitted pursuant to Emergency Plan Implementing Procedure-02. This report discusses the NOTIFICATION of UNUSUAL EVENT that occurred on October 6, 1986.

If you have any questions, please contact T. R. Bradish, Compliance Supervisor at (602) 932-5300, Ext. 6936.

Very truly yours,

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J. G. Haynes Vice President Nuclear Production

JGH/JEM/cld

Attachment

cc: R. P. Zimmerman (all w/a) A. L. Hon E. A. Licitra A. C. Gehr INPO Records Center E. E. Van Brunt, Jr. NRC Document Control Desk M. O. DeMichele

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bec: J. R. Bynum (all w/a) 0. J. Zeringue J. M. Allen R. E. Younger R. J. Adney M. L. Clyde W. E. Ide D. N. Stover (NSG) J. R. LoCicero (ISEG) M. K. Hartsig D. R. Canady LCTS Coordinator B. F. Asher (Training) R. E. Gouge R. R. Baron PRO File 1-86-0288 Responsible Departments (required review): W. B. Garrett

PALO VERDE NUCLEAR GENERATING STATION UNIT 1

NOTIFICATION OF UNUSUAL EVENT OF OCTOBER 6, 1986

Docket No. 50-528

License No. NPF-41

Special Report 1-SR-86-C35

At 1235 on October 6, 1986, the NRC Operations Center was notified, via the Emergency Notification System, of the declaration of a NOTIFICATION OF UNUSUAL EVENT for Unit 1 of the Palo Verde Nuclear Generating Station. The NOTIFICATION OF UNUSUAL EVENT was declared pursuant to Emergency Plan Implementing Procedure-02 based upon the initiation of a Safety Injection Actuation Signal (SIAS) and an assumed Safety Injection flow into the Reactor Coolant System (RCS).

Prior to the event which initiated the SIAS, the Unit was in Mode 1 (POWER OPERATION) in the process of reducing reactor power from 35 percent to 10 percent subsequent to a main electrical generator trip.

When reactor power had been reduced to approximately 24 percent the secondary side control room operator noted unstable feedwater control system operation. Variances in Steam Generator level of approximately 10 percent narrow range occurred on both Steam Generators. In an attempt to stabilize these swings, feedwater pump speed was decreased to minimum. This was done in an effort to decrease regulating valve differential pressure, however, no effects were noted.

Additional efforts to stabilize the Steam Generator level included taking manual control of both Economizer Valves when they automatically reached the fully closed position. As Steam Generator levels began to decrease, each Economizer Valve was reopened. Economizer Valve 2 operated with prompt response to manual position demand while Economizer Valve 1 did not respond until a 15% signal was applied. At this point the valve repositioned itself from fully closed to 15% open. The sudden opening of this valve admitted cold feedwater to the Steam Generator which decreased the cold leg temperature in that loop. The Core Protection Calculators generated a Lo DNBR reactor trip at 1200 based on projected Hi Differential cold leg temperatures (between RCS Loops 1 and 2).

Reactor Coolant System temperature and pressure continued to decrease with the influx of cold feedwater, until the SIAS and the Containment Isolation Actuation Signal (CIAS) setpoints were reached. At 1201 the SIAS and the CIAS actuated and the required equipment responded in accordance with the design parameters. At 1207 a Notification of Unusual Event was declared.

Operators maintained required split y functions while a diagnostic was performed in accordance with the Emergency operations Procedure (41EP-1ZZO1). The diagnostic identified the event as ar who may cated reactor trip and the proper recovery procedure, "Reactor Trip' (100 201), was implemented.

At 1252 the plant was stabilized in Mode 3 (HOT STANDBY) and the SIAS and the CIAS were reset in accordance with approved procedures. The Notification of Unusual Event was terminated at 1259 on October 6, 1986. The duration of the event was approximately 52 minutes.

The transient did not result in any challenges to fission product barriers or result in the release of radioactive materials.

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This event continues to be evaluated. A Licensee Event Report will be submitted within 30 days to further describe this occurrence. In accordance with Technical Specification 6.9.2 a Special Report will be submitted describing the initiation of safety injection during this event.