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 50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Ga 05000323
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 SHIFFER, J.D. Pacific Gas & Electric Co.
 RECIP. NAME RECIPIENT AFFILIATION
 MARTIN, J.B. Region 5, Ofc of the Director

SUBJECT: Forwards response to Region V 890727 ltr re util activities associated w/vendor audits, per 10CFR50.54(f).

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James D. Shifer
Vice President
Nuclear Power Generation

August 7, 1989

PG&E Letter No. DCL-89-207



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

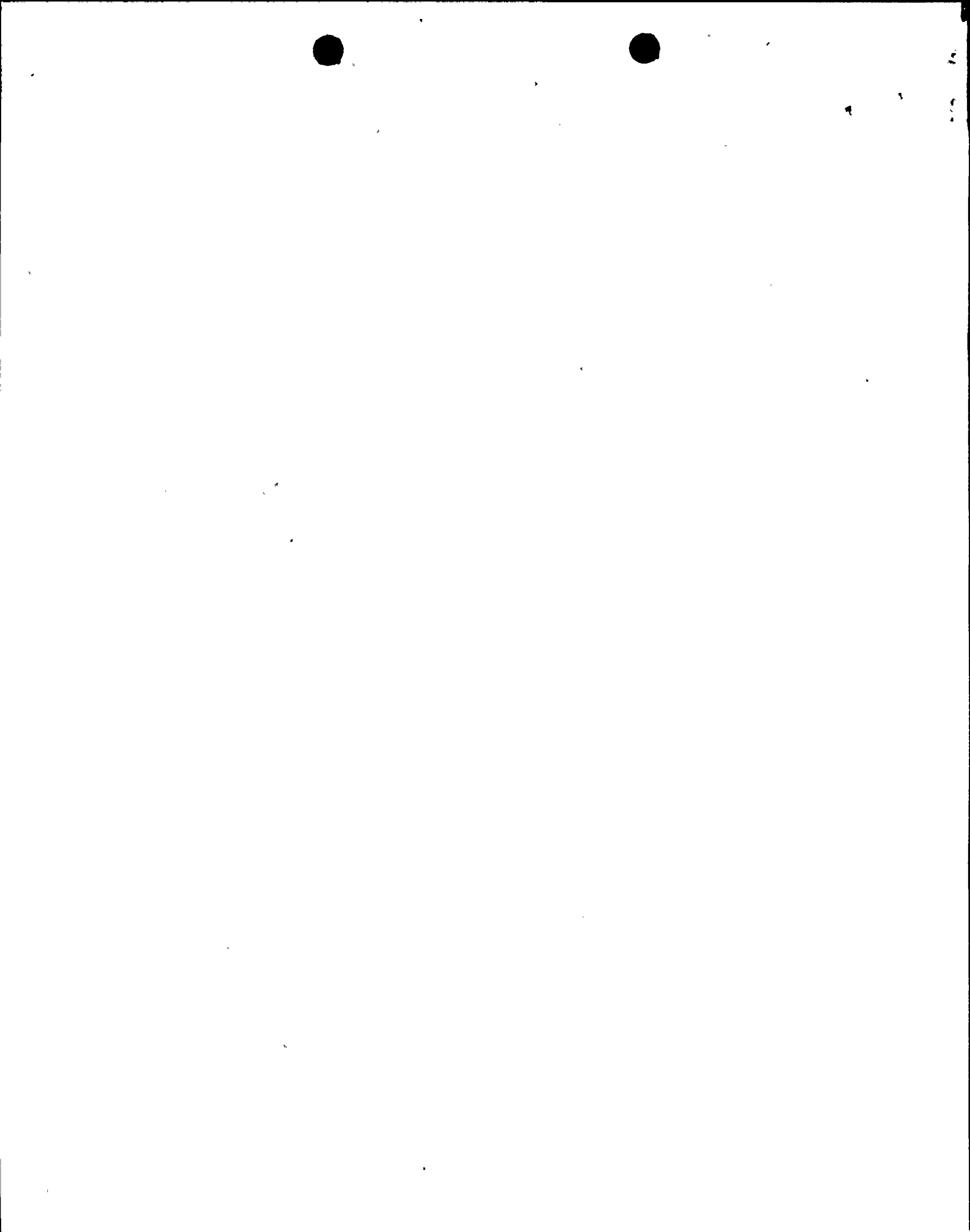
Re: Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Diablo Canyon Units 1 and 2
Response to Request for 10 CFR 50.54(f) Information

Dear Mr. Martin:

Pursuant to 10 CFR 50.54(f), enclosed is PG&E's response to the Region V letter dated July 27, 1989. This letter requested information regarding PG&E's activities associated with vendor audits. As discussed in the July 25, 1989 meeting with the NRC, PG&E has initiated ongoing efforts to evaluate, investigate and resolve the issues identified in the July 27 letter. The following information is provided: (A) PG&E's justification for continued operation of the Diablo Canyon facilities in light of the potential deficiencies identified in PG&E's vendor audits as discussed in the July 25 meeting (Enclosure 1), (B) PG&E's plan and schedule for assessing the adequacy of the vendor audit and quality assurance program in general (Enclosure 2), and (C) PG&E's determination of reportability and the generic applicability of the identified potential deficiency (Enclosure 3). These enclosures reflect PG&E's current understanding of the issues in light of the ongoing investigations.

PG&E is committed to maintaining high levels of quality in activities related to Diablo Canyon and is involved with several industry groups on efforts related to such issues. This involvement includes PG&E's membership in the NUMARC Nuclear Plant Equipment Procurement (NPEP) Work Group as part of the unified industry interaction with NRC on procurement. PG&E is also actively participating in conducting joint utility audits of suppliers as a member of the Nuclear Procurement Issues Council (NUPIC), a combination of the previous Nuclear Supplier QA Committee (NSQAC) and the Coordinating Agency for Supplier Evaluation, Nuclear Section (CASE). PG&E has participated aggressively in these industry efforts which are directed toward improving the quality of vendor audits and assuring their compliance with regulatory requirements.

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PDR ADDCK 05000275
PIC



Based on the enclosed information, PG&E has full confidence that continued operation of Diablo Canyon Units 1 and 2 does not create an unreviewed safety question and will not adversely affect the public health and safety.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Subscribed to in San Francisco, California this 7th day of August 1989.

Respectfully submitted,
Pacific Gas and Electric Company

By J. D. Shiffer
J. D. Shiffer
Vice President
Nuclear Power Generation

Howard V. Golub
Richard F. Locke
Attorneys for Pacific
Gas and Electric Company

Subscribed and sworn to before me
this 7th day of August 1989

By Richard F. Locke
Richard F. Locke

Adriane D. Tolfree
Adriane D. Tolfree, Notary Public
for the County of Alameda,
State of California

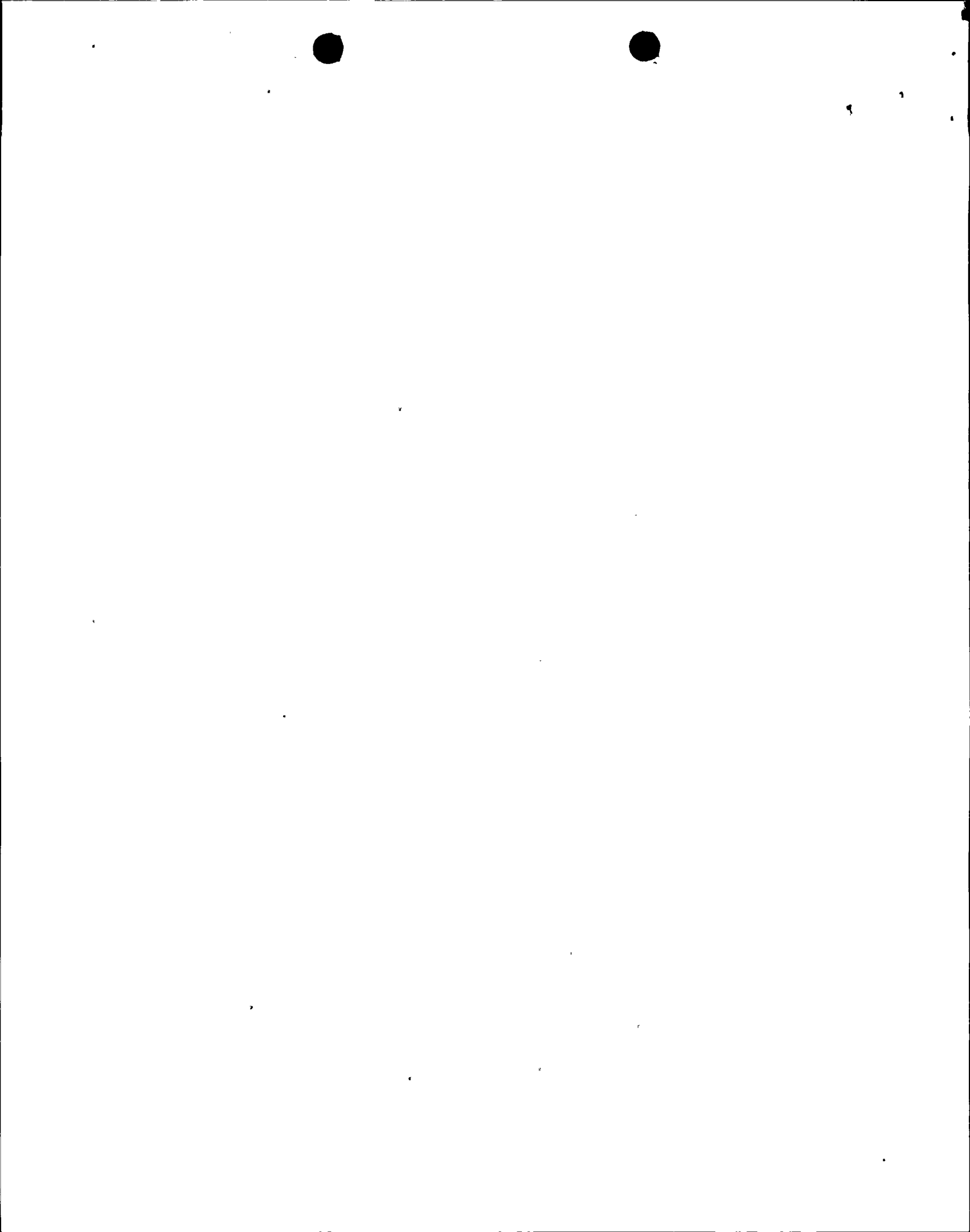
My commission expires December 22, 1992.



cc: M. M. Mendonca
P. P. Narbut
H. Rood
B. H. Vogler
CPUC
Diablo Distribution

Enclosures

2811S/0071K/BDP/1990



ENCLOSURE 1.

NRC Request:

1. Your justification for continued operation of the Diablo Canyon facilities in light of deficiencies that you have identified in your audits of vendors, as discussed in our July 25, 1989 meeting;

PG&E Response:

This enclosure contains the justification for continued operation (JCO) of the Diablo Canyon facilities in light of the potential deficiencies that were identified in audits of vendors as discussed in a meeting with the NRC on July 25, 1989. Based on the information provided in the JCO and accompanying safety analysis, continued operation of Diablo Canyon Units 1 and 2 does not create an unreviewed safety question and will not adversely affect the public health and safety. The JCO will remain in effect until all potentially incomplete and/or inadequate audits are resolved and all identified discrepancies are corrected.



JUSTIFICATION FOR CONTINUED OPERATION (JCO) 89-18
POTENTIALLY INCOMPLETE AND/OR INADEQUATE SUPPLIER AUDITS

I. EXISTING CONDITION FOR UNITS 1 AND 2

Based on audits 88244S, 89103S, and 89129S, a concern was identified that, contrary to PG&E QA Manual requirements, a contract QA auditor had performed potentially incomplete and/or inadequate supplier audits which did not identify the suppliers' failures to implement portions of their QA programs. Nonconformance Report DCO-89-QA-N007 was initiated to investigate and resolve this concern.

PG&E has conducted an evaluation of all supplier audits during the last 3½ years and has identified 317 audits performed by outside contractors. The review period of 3½ year was based on PG&E's triennial audit program. Included in the 317 are 97 audits conducted by the auditor performing the potentially incomplete and/or inadequate audits. Of the 97 audits, PG&E identified 14 suppliers whose qualifications were based solely on audits by the auditor performing the potentially incomplete and/or inadequate audits. There were no safety-related purchase orders submitted to five of these suppliers, the acceptability of two suppliers is known to the nuclear industry (e.g., CASE, NSQAC member audits), and one supplier audit included a PG&E auditor. Three of the remaining six suppliers had not supplied any material to PG&E during the period when the potentially incomplete and/or inadequate audits were performed. The other three suppliers, whose qualification was based upon the potentially incomplete and/or inadequate audits, had supplied Class 1 material. It was determined that those suppliers, Dresser Industries, Metal Bellows, and Pacific Scientific, would be reaudited.

In addition, a review of the remaining 220 audits performed by other outside consultants working under their own QA program also identified some potentially incomplete and/or inadequate audits. The resolution of concerns for the affected suppliers is included in Attachment 1.

II. JUSTIFICATION FOR OPERATION OF UNITS 1 AND 2

Based on the attached safety analysis, continued operation of Unit 1 and Unit 2 with identified potentially incomplete and/or inadequate audits does not create an unreviewed safety question and will not adversely affect the public health and safety.



III. JCO DURATION AND SPECIAL CONDITIONS

This JCO will remain in effect until all potentially incomplete and/or inadequate audits are resolved and any identified discrepancies are corrected. Completion of this action is tracked by NCR DCO-89-QA-M007.

Prepared by: Terence L. Gubel

Technical Review by: David A. Taggart

Reviewed by: John D. Townsend MTC 89-117
Plant Staff Review Committee

Approved by: John D. Townsend 8-5-89
DCPP Plant Manager

- | | | |
|-----|------------|-----------------|
| cc: | JDShiffer | DATaggart |
| | WBKaefer | CLEdridge |
| | SMSkidmore | DBMiklush |
| | WTRapp | JMGiscion |
| | LFHornack | WBMcLane |
| | BWSiffin | PPHarbut |
| | RAnderson | Site Engr. |
| | MJAungus | Site OPEG Engr. |



JUSTIFICATION FOR CONTINUED OPERATION (JCO) 89-18
POTENTIALLY INCOMPLETE AND/OR INADEQUATE SUPPLIER AUDITS
SAFETY EVALUATION

The following is a safety evaluation supporting continued operation of Units 1 & 2 with potentially incomplete and/or inadequate supplier audits.

I. ANALYSIS

A. Description of Degraded Condition

Based on audits 88244S, 89103S, and 89129S, a concern was identified that contrary to PG&E QA Manual requirements, a contract QA auditor performed potentially incomplete and/or inadequate supplier audits which did not identify the suppliers' failures to implement portions of their QA programs. As defined in ANSI M45.2.13 and as implemented by PG&E, methods used to accept an item or service from a supplier include source verification by audit, source inspection, and receiving inspections and tests. The conduct of quality assurance supplier audits provide one of these verification methods to assure that the established supplier's quality assurance program is adequate and implemented. Nonconformance Report DCO-89-QA-M007 was initiated to investigate and resolve this concern.

Potentially Incomplete and/or Inadequate Audits

The deficiencies, identified in Audit 88244S on Sulzer Bingham, Audit 89103S on Pacific and Worthington Pumps, and Audit 89129S on ITT Barton that should have been identified in the previous contracted audits, are as follows:

1. Sulzer Bingham (Sulzer)

Audit 88244S identified the following deficiencies that previous Audit 87208S failed to identify:

- a. Failure to use ASME Section III quality assurance program. Criterion III (Design Control) of Appendix B states in part "...Measures shall also be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems and components." Contrary to this requirement, Sulzer did not apply the appropriate measures to parts which were ordered by PG&E on Purchase Orders 17779 and 663288. All of the parts ordered on these purchase orders are safety-related and 10 CFR



21 was invoked on these purchase orders. Additionally, both of these purchase orders specified that Sulzer implement their ASME Section III Quality Assurance Program (SP-A-2) on all of these parts. Contrary to this, Sulzer applied their "Commercial Class II" program (H31.27) to these items without notifying PG&E. Sulzer does have a 10 CFR 50 Appendix B program for nonpressure retaining, safety-related items (stems, impellers, etc) but did not apply this program to the PG&E orders. Presently, Sulzer's "Commercial Class II" program (H31.27) allows them to procure items from suppliers who don't have nuclear assurance programs without doing any additional dedication (i.e., special testing, vendor history files, product performance files, N.D.E, special examinations, etc).

- b. Substitution of materials. Contrary to the requirements of these purchase orders, material was supplied which was different from that specified by PG&E. Both orders specify impellers for which material must be ASTM-A-296 Grade CF8M. On Purchase Order 663288, Sulzer supplied ASTM-A-743, Grade CF8 and on Purchase Order 17779 Sulzer supplied ASTM-A-743, Grade CF8M. Sulzer failed to notify PG&E of this material substitution.

NCR DC1-88-MM-NO42 was issued to investigate and resolve these concerns. The investigation of this NCR determined that all parts provided were commercial grade and were inadequately dedicated. PG&E Engineering investigated the impact of the use of commercial grade replacement parts as currently installed in the ASW and CCW pumps. PG&E Engineering concluded that their use does not prevent the ASW and CCW pumps from performing their safety related functions. Use of these commercial grade impeller parts resulted in inadequate heat treatment of ASW impellers. JCO 88-07 was prepared to justify continued operation with the ASW impellers.

2. Pacific and Worthington Pumps (Pacific)

Audit 89103S identified that Pacific procured material and parts commercial grade and supplied them to PG&E without performing proper dedication. The material and parts were supplied to PG&E during 1987-1989 under purchase orders which imposed Specification SP-F-Parts (which imposes 10 CFR 21; 10 CFR 50, Appendix B; and ANSI N45.2.13).



Previous audits 88232S and 87148S failed to identify this deficiency.

NCR DCO-89-EN-011 was initiated to investigate and resolve these concerns. The supplier has subsequently responded to PG&E in a letter dated June 27, 1989, that they have documentation on the major parts which will allow individual piece dedication. PG&E Engineering evaluation of the supplier's response determined the following:

- a. The DCPD safety injection and charging pumps are regularly tested in accordance with the plant surveillance test program which implements ASME Section XI requirements. These tests have demonstrated acceptable performance.
- b. PG&E's QA Audit B9403S verified that the contested "C" and "D" parts receive complete dimensional and visual inspection.
- c. After each installation of "C" or "D" parts, the pumps were surveillance-tested before they were declared operable. This surveillance test measures vibration levels, bearing temperatures and head-capacity characteristics. Any defective parts would probably have exhibited unacceptable values for vibration, bearing temperature or head capacity characteristics.
- d. The charging pumps are operated for chemical and volume control of the reactor coolant system during normal operation as an alternate to the positive displacement pump. Operation in this mode has resulted in a substantial functional test which was long enough to demonstrate the integrity of the pumps and provides reasonable assurance that the pumps will perform their safety-related function when required.
- e. No Pacific pumps category "C" or "D" parts are pressure boundary items. Furthermore, PG&E, Sargent & Lundy, and Pacific have determined by Failure Modes and Effects Analysis that certain category "C" and most category "D" parts are not safety-related.
- f. The fluids handled by these pumps are subjected to rigorous chemical control which reduces the corrosion effects from the process fluid to a minimum.
- g. Many nuclear plants, including Westinghouse



pressurized water reactors, use Pacific pumps for charging and safety injection service. These pumps contain parts with quality characteristics similar to those installed at DCP. These pumps have performed reliably for many years.

3. ITT Barton (Barton)

Audit 89129S identified that Barton did not have objective evidence that design changes on the environmentally qualified electro-hydraulic actuators had been evaluated for affect on previous qualification tests and identified that metallic parts critical to the operability and fail-safe conditions of the actuators are being procured commercial grade without proper dedication being performed. Previous audit 88013S failed to identify the above deficiencies.

A review of this concern determined that no material from the supplier was installed in the plant. Material which has been received by the warehouse has subsequently been determined to be adequate by reanalysis and testing by the supplier. This eliminated the environmental qualification concern.

In response to the commercial grade dedication concern, Barton stated in a letter dated July 17, 1989, that "ITT Barton Hydromotor Actuators are designed with a "Fail Safe" feature. Should a failure occur, the actuator will move to its fail safe position either due to the component involved or on command, if the failure drives the unit to full stroke."

Barton further stated that "It is the opinion of ITT Barton Design Engineering that during the design life, there are no metallic components which would prevent any Hydromotor actuator failing in other than a fail-safe condition."

An evaluation by PG&E Engineering determined the following.

- a. The design basis for the auxiliary feedwater (AFW) system requires that these valves modulate to control AFW flow, that they be seismically qualified to operate, and that they be environmentally qualified (EQ) for post-LOCA recirculation radiation. They do not need to be environmentally qualified for the hot steam environment resulting from a feed or steamline break in their area.



- b. Metallic parts are not an EQ issue because they are not affected by radiation at the normal levels experienced during plant life and a subsequent accident.
- c. The lead engineer for EQ and seismic issues for the I&C group was a member of the PG&E audit team that visited Barton. This person was selected for this assignment based on individual in-depth familiarity with EQ and seismic issues in addition to having been previously involved with these valves. The audit looked at both qualification and commercial grade dedication issues.

During the audit, PG&E observed that Barton performs alloy testing of the raw materials that they subsequently process and perform extensive functional testing of the actuator at full rated load prior to delivery. This testing results in loadings which are more severe than those experienced during normal operation. Based on the above, it was concluded that Barton dedicates and/or manufactures parts and controls their qualification such that the valves are adequate for continued service.

- d. These valves are subject to periodic surveillance testing. This testing would detect any degradation of the valves. There have been no structural failures of these actuators during testing.

All of the potentially incomplete and/or inadequate audits of the above suppliers were performed with the same auditor as the audit team leader or as a member of the audit team. A review of audit records showed that the auditor in question had been performing audits for PG&E since 1987.

PG&E has conducted an evaluation of all supplier audits during the last 3½ years and has identified 317 audits performed by outside contractors. The review period of 3½ years was based on PG&E's triennial audit program. Included in the 317 are 97 audits conducted by the auditor performing the potentially inadequate and/or incomplete audits. Of the 97 audits, PG&E identified 14 suppliers whose qualifications were based solely on audits by the auditor performing the potentially incomplete and/or inadequate audits. Five of these suppliers were found with no safety related purchase orders; the acceptability of two suppliers is known to the nuclear industry (e.g., CASE, NSQAC member audits); and one supplier audit included a PG&E auditor. Three of the remaining six suppliers had not supplied any



material to PG&E during the period when the suspect audits were performed. The other three suppliers, whose qualification was based upon the potentially incomplete and/or inadequate audits, had supplied Class 1 material. It was determined that those suppliers, Dresser Industries, Metal Bellows, and Pacific Scientific, would be reaudited.

In addition, a review of the remaining 220 audits performed by other outside consultants working under their company's QA program and supervision also identified some potentially incomplete and/or inadequate audits. The resolution of concerns for the 185 affected suppliers is included in Attachment 1.

Results of Potentially Incomplete and/or Inadequate Audits

PG&E audit teams using PG&E personnel were sent between July 21-24, 1989, to all three of these suppliers to perform an audit of the previous audit's adequacy.

1. Parker Metal Bellows

The Parker Metal Bellows audit disclosed that PG&E had only issued one purchase order in the last 3 1/2 years. On this purchase order PG&E had purchased a flexible metal hose assembly. This flexible hose was built to the requirements of ASME Section III, Subsection ND and Code Case N-192-2. With the exception of the ferrule, all parts associated with the hose assembly are considered ASME Section III parts. The ferrule is not governed by the ASME code because it is non-pressure retaining. This ferrule was procured on a purchase order that invoked no quality assurance requirements on the sub-supplier. Accordingly, it was furnished as commercial grade to Parker Metal Bellows. Additionally, Parker Metal Bellows did not perform any additional dedication activities. After discussing the situation with the Project Engineer from Parker Metal Bellows, the auditor agreed that the ferrule performed no safety-related function. This was supported by a Failure Modes and Effects Analysis that determined the the ferrule was:

- a. Non-pressure retaining
- b. Non-load bearing
- c. Not essential to function

Additionally, the ferrule was not taken into account when the flexible hose assembly was seismically qualified. This position was documented in a letter to PG&E and was subsequently evaluated and accepted by PG&E Engineering.

Previous Audit 88210S failed to identify the above deficiency.

2. Dresser Industries



The Dresser Industries audit identified deficiencies in the quality assurance program applied to non-pressure retaining, essential-to-function parts. As part of this audit, PG&E examined the program that Dresser applied to a disc holder, disc guide and an adapter compression screw purchased by PG&E on various purchase orders. The auditor reviewed various purchase orders that Dresser placed with its subsuppliers along with the Certified Material Test Reports (CMTRs) received for these items. This review determined that these parts were purchased as non-safety-related and this fact was supported by reviewing the applicable CMTRs. Additionally, Dresser had no traceability documentation for these parts nor did they perform any other dedication activities other than a standard receipt inspection. As a result of this audit, PG&E reviewed its records and determined that none of the parts had been issued for use. All non-pressure retaining parts supplied by Dresser have been put on hold in the warehouse pending disposition.

Previous Audit 88262S failed to identify the above deficiencies.

3. Pacific Scientific Company

An audit of Pacific Scientific Company (PSA) was performed to verify the PSA QA program for providing nonload bearing, essential-to-function items. The audit identified that since January 1988, PSA had no program to control parts exempt from ASME Subsection NF (i.e., non-load bearing). This is documented in PSA Quality Assurance Manual, Section 6. The PSA QA Director stated that prior to January 1988, PSA had an NPT Certificate from ASME and changed their ASME program to a material supplier, thus facilitating a major revision to their QA Manual. As a result of this situation, PG&E conducted a search of all parts procured from PSA since January 1988 and their location. This search determined that six cap screws purchased on Purchase Order 18690 were issued for use in the plant. A review of the documentation supplied by PSA for these cap screws determined that PSA supplied these screws under provisions of their ASME Section III QA program and certified this on Certificate of Compliance.

Additionally, it was identified that the contract audit of PSA's ASME program was to the wrong criteria. The baseline of the subject audit was ASME Section III, NCA-4000 even though the vendor had discontinued this program five months prior to the audit. PSA's present program meets NCA-3800 (i.e., Material supplier).

Because the subcontracted audit had been performed to the wrong criteria (i.e., NCA-4000), PG&E reviewed the last previous utility audit of PSA's Section III program. This audit was performed in February 1989. The baseline for this audit was ASME Section III (NCA-3800). Based on a review of this audit report, checklists, audit findings, and a review of PSA QA



manual, PSA will remain on PG&E's Qualified Supplier List (QSL) for ASME Section III items. However, because this program (NCA 3800) has never been audited, PG&E will perform an audit of this program in early October. Additionally, PSA is in the process of revising their program for non-load bearing items and this revised program will be audited at the same time.

Previous Audit 88087S failed to identify the above deficiencies.

Overall Evaluation of Supplier Audits Performed by Contractors

PG&E has conducted an evaluation of all supplier audits during the last 3 1/2 years and has identified 317 audits performed by outside contractors under their companies' QA program and supervision. The review period of 3 1/2 years was based on PG&E's triennial audit program. The 317 supplier audit reports involve a total population of 185 suppliers based on a review of PG&E paid invoices. Attachment 2 is a list of the 317 supplier audit reports. Attachment 3 is a list of the 185 suppliers affected by these audits. An evaluation of suppliers associated with these audits was performed. Attachment 1 provides a summary of the evaluation of effects on plant operation. The basis the conclusions reached in the evaluation was as follows:

- No safety-related material was purchased using the subject purchase orders
- Material was purchased but never installed in the plant
- Audits reports were reviewed by PG&E and found to be acceptable
- Audits were reviewed and found acceptable based upon other audits performed by NSQAC/third party
- Audits were conducted under the PG&E QA program rather than the contractor QA program
- Suppliers were reaudited by PG&E
- Other specific justification

NRC Supplier Audit Concerns

In addition to PG&E identified audit concerns, the NRC has identified concerns about industry supplier audits in Information Notices 88-35 and 88-95. PG&E will consider this information in its final resolution of this event.

B. Safety Function Potentially Affected

Based on a review of the audits which could have potentially resulted in suspect material being used to perform safety



functions, it was determined that installed material does not have any adverse impact affecting continued operation of the plant and no safety function is affected. Previous problems associated with the ASW Pump Impellers have been separately addressed in JCO 88-07.

C. Affect of Condition on Safety Function

Not applicable as described above.

D. Alternate Methods of Safety Function Performance

Not applicable as described above.

E. Compensatory Measures

As a result of the above evaluation, PG&E identified three suppliers that require an independent supplier audit by PG&E. These three reaudits were completed on July 24, 1989.

The remaining audits performed by the outside contractor performing the potentially incomplete and/or inadequate audits were evaluated to determine if a reaudit was required. The evaluation considered whether the supplier had already been reaudited, or whether PG&E auditors were present at the audit to ensure a valid audit, or whether a reaudit was determined unnecessary due to absence of purchase orders or prior removal from the QSL. Where needed to provided justification on the quality of the supplier, PG&E has also consulted with other utilities who have conducted audits of the supplier.

II. 50.59 EVALUATION

A. Does the continued operation increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously analyzed in the safety analysis report?

As defined in ANSI N45.2.13 and as implemented by PG&E, methods used to accept an item or service from a supplier include source verification by audit, source inspection, and receiving inspections and tests. The conduct of quality assurance supplier audits provide one of these verification methods to assure that the established supplier's quality assurance program is adequate and implemented. Since an audit is one mechanism to provide reasonable assurance, direct hardware problems would have to result from both a failure of the supplier's quality program and a lack of detection by other PG&E verification measures such as receipt inspections.

Previous problems associated with the ASW pump impellers have been separately addressed in JCO 88-07. As discussed above, it



was determined that additional discrepant material identified to be installed in the plant during this evaluation does not have any adverse impact on operation.

Therefore, continued operation with the identified potentially incomplete and/or inadequate supplier audits does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously analyzed in the safety analysis report.

- B. Does continued operation create the possibility for an accident or malfunction of a different type other than any evaluated previously in the safety analysis report?

Previous problems associated with the ASW pump impellers have been separately addressed in JCO 88-07. As discussed above, it was determined that additional discrepant material identified to be installed in the plant during this evaluation does not have any adverse impact on operation. Therefore, there has been no change in the configuration of either Unit that would create the possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report.

- C. Does the continued operation reduce the margin of safety as defined in the basis for any Technical Specification?

Previous problems associated with the ASW pump impellers have been separately addressed in JCO 88-07. As discussed above, it was determined that additional discrepant material identified to be installed in the plant during this evaluation does not have any adverse impact on operation. Therefore, continued operation does not reduce the margin of safety as defined in the basis for any Technical Specification.

III. CONCLUSION

Based on the above analysis and 10 CFR 50.59 evaluation, continued operation of Unit 1 and Unit 2 with the identified potentially incomplete and/or inadequate audits does not create an unreviewed safety question and will not adversely affect the health and safety of the public.



Attachment 1

EVALUATION OF EFFECTS ON PLANT OPERATION

<u>Quantity</u>	<u>Basis</u>
A. Supplier Audit Scope Reviewed and Considered Acceptable	
60	No safety-related purchase orders
2	Subtier suppliers audited but not placed on qualified suppliers list (QSL) and no purchase orders issued.
4	Unqualified suppliers - suppliers never placed on PG&E's QSL and no safety related purchase orders.
80	Additional audits of these suppliers were performed by PG&E personnel or PG&E staff personnel during this subject timeframe; PG&E personnel or PG&E staff augmentation personnel participated in the contracted audit; or an audit followup was performed by PG&E personnel or PG&E staff augmentation personnel.
21	Contracted audits reviewed and found to be acceptable.
6	NSQAC/Third party audits reviewed and found to be acceptable.
1	No material from supplier currently installed in DCPP.
1	Dropped from PG&E QSL, parts dedicated by PG&E.
3	Supplier reaudited with Engineering disposition.
2	PG&E Engineering dispositioned
B. Supplier Audit Scope Was ASME Exempt Safety-Related Parts	
3	Suppliers where manual review identified that the QA program addresses both ASME and Appendix B requirements and a review of the supplied certificate of compliance indicated that the QA program was applied.
1	Suppliers with material supplied - but material is still in PG&E's warehouse.
C. Supplier Audit Scope Was Environmentally Qualified Parts	
1	Suppliers with material supplied - but material still in PG&E's warehouse.



<u>SUPPLIER'S NAME</u>	<u>AUDIT NO.</u>
AA Jansson	890908
Aeros Corp.	881978
Alfa-Cevaert, Inc.	881548
AGFA-Cevaert	871068
Ainsworth Products	871078
Allegheny Ludlum	860368
Allegheny Ludlum	870288
Allegheny Ludlum	870368
Allegheny Ludlum	880168
Alloy Rods	871418
Alloy Rods	882268
Alloy Stainless	883028
Alnor	891388
Alnor Instruments	880898
Amerace	890718
American Air Filter	871938
American Air Filter	890098
American Gage	890548
Ameron	882288
Amerham Corp.	882078
Analytins, Inc.	870738
Anamet Laboratories	880178
Anamet Labs	870498
Anchor Darling	860638
Anchor Darling	870748
Anchor Darling	881118
Anderson-Greenwood	881528
Arco	871658
Atwood & Morrill	871428
Atwood & Morrill	872448
Atwood & Morrill	890378
Automatic Switch	870738
Automatic witch	880888
Automatic Switch Co.	860718
A&G Engineering	881098
Bailey Controls	870228
Bailey Controls	880218
Battelle Pacific	891378
Battelle Pacific Northwest	871098
Battelle PNL	881048
Bethlehem Steel	870708
Bethlehem Steel	880298
Bingham International	872088
Boston Insulated Wire	852598
Boston Insulated Wire	862078
Bouche Laboratories	871108
Bouche Labs	880868
Bouche Labs	890668
Brammer Standards	881058
Brand Rex	861318
Brooks Instruments	871118
Bronyard Structural Steel	870218
BW/IP (Borg Warner)	880958
Cajon Co.	881448



<u>SUPPLIER'S NAME</u>	<u>AUDIT NO.</u>
Carbolina	870168
Carbolina	890708
Cardinal	882398
Chemical Nuclear Systems	871838
Chem-Nuclear	882608
Chesterton	882508
Chesterton, A. W.	892588
Chesterton, A. W.	862088
Chesterton, A. W.	872158
Coast Welding Supply	881498
Colonial Machine	860378
Colorado Engineering	882278
Combustion Engineering	861528
Combustion Engineering	882348
Consip	882768
Contel	890158
Contel Corp.	872128
Conam Inspection	881358
Conax Buffalo	881738
Conax Corp.	861778
Conax Corp.	871668
Control Components	872018
Controletron	862118
Controletron	882258
Controletron Corp.	872148
Contromatics	862098
Contromatics	871948
Contromatics	880448
Contromatics	890398
Copes Vulcan	861798
Copes Vulcan	881988
Copes-Vulcan	871678
Crane-Aloyco	870778
Crane-Aloyco	881068
Crawford Fitting	881948
Crosby Valve and Gauge Co.	871448
Crosby Valve & Gauge	882028
Custon Alloy	861808
Custon Alloy	872108
C&S Valve	881198
Dalpi Gal Labs	882368
Davis Instruments	871378
Davis Instruments	881478
Davis Instr.	891178
DH Instruments	860538
Diagen Valves	882568
Desiteq	890278
Do-All	871138
Do-All	880998
Do-All/A. A. Jansson	871128
Do-All/Jansson	880988
Dresser Industries	872168
Dresser Industries	882628
Duratak	890078



<u>SUPPLIER'S NAME</u>	<u>AUDIT NO.</u>
Dytran	891078
Dytran Instruments	871148
Earth Science Associates	880288
Eaton-Culter Hammer	870298
Eberline Corp.	882598
Electro Test	872208
Electrotest	882418
Endevco	881598
Engelhard	871998
Engelhard	881458
Environmental Engineering	880238
Environmental Engineering & Testing	870438
E.I. International	870798
E.I. International	880488
Falk Corp.	870808
Farwell & Hendricks	890698
Fisher Controls	881158
Flanders Filters	872118
Fluid Components	890518
Fluka	871158
Fuchs Co.	861148
Fuchs Co.	870818
Furmanite	862608
Furmanite America, Inc.	872178
GA Technologies	882558
Gamma-Metrics	880768
General Eastern	871168
General Physics	890638
General Radio	871178
General Radio	880978
General Technical Services	861818
Gould Pumps	871458
Grinnell Corp.	871968
Grinnell Corp.	880838
Guyon Alloys	861708
G.P. Instruments	881028
Harnischfeger P&H	880928
Harnischfeger, P.H.	870828
Hatch	880458
Hatch Inc.	870278
Hayward Taylor Pumps	871978
Hewlett Packard	890568
Hilti	882688
Hilti, Inc.	872668
Heltec	880758
Hub, Inc.	871468
Hub, Inc.	881958
Imperial Eastman	880208
Isotope Products Laboratory	880278
Isotope Products Labs	870268
ITT Barton	880138
ITT Engineered Valves	862578
ITT Engineered Valves	872098
ITT Engineered Valves	882468



<u>SUPPLIER'S NAME</u>	<u>AUDIT NO.</u>
ITT General Control	870238
John Fluke Mfg.	890898
Johnson Pump	881368
Joy Manufacturing	870178
Joy Mfg.	880478
Karotest	880468
Karotest	890088
Karotest Manufacturing	870128
Knopp	871188
Knopp, Inc.	881608
Kraukramer/Branson	880828
Liberty Equipment	870258
Liberty Equipment & Supply	880228
L.S. Starrett	881618
Masonellan Dresser	890268
Masonellan-Dresser Industries	871478
Metal Bellows	882108
MIS Systems	871208
Mine Safety Appliances	890578
MKS Instruments	881008
MKS Instruments Inc.	871198
Moore Industries	890068
MTS System (2 locations)	881468
Nanco Controls	881488
National Technical Systems	881768
NES/Dynacon	871218
NES/Dynacon	872198
NES/Dynacon	872708
NPS Industries	881558
Nuclear Air Filters	870118
Nucon	882748
Nuthara	870148
Oat, Joseph	862108
Oat, Joseph	872188
Pac Pumps	882328
Pacific Calibration	881128
Pacific Calibration	890658
Pacific Nuclear Systems	870848
Pacific Nuclear Systems	871708
Pacific Pumps	871488
Pacific Pumps	891038
Pacific Scientific	880878
Pall Trinity	862628
Pall Trinity	882338
Parker Seals	890528
Paul Monroe Smartech	890618
PCB Piezotronics	871228
PCB Piezotronics Inc.	880948
Plant Inspection	890538
Petter & Brunfield	870198
Presray	870208
Presray Corp.	860448
Presray Corp.	880848
Presray Corp.	890628



SUPPLIER'S NAMEAUDIT NO.

Promaco	882458
Qualimetries, Inc.	881538
Radco Corporation	880268
Radco Corp.	890038
Radian Research	872078
Radian Research	882298
Radiation Sterilizers	890558
Radner Alloys	872688
Radnor Alloys	882738
Raychem	881078
Reed Mat'l Air Products	890048
Rice Lake Bearing	880938
Rice Lake Bearing	891268
Robvon Backing Ring	860708
Robvon Backing Ring	870838
Robvon Backing Ring Co.	881168
Rockbestos	860648
Rockwell International	870158
Rockwell International	882428
Rosemount, Inc.	880148
Rosemount, Inc.	890018
Roskin Mfg	881088
Rotek Instrument	871238
Rotek Instruments	880318
Rotek Instruments	890258
Rotork Controls, Inc.	870878
Ruster-Stokes	882058
Ruska	891198
Ruska Instrument Corp.	871248
Ruska Instruments	881648
Ruskin Manufacturing	870868
Satin American	890508
Sorrento Electronics	880308
Starrett, L. S.	861508
Starrett, L. S.	871498
Stavelay Instruments	871278
Stavelay Instruments	881038
Stavelay Instruments	881588
Stavelay Instr.	891288
Stavelay NDT Instruments	871258
Stavelay Sonic Instrument	871268
Stavelay NDT	881578
Sulzer Bingham	882448
Sulzer Bingham Pumps	882448
Target Rock	881138
Taylor Instruments	860458
Taylor Instruments	880648
Techalloy	861788
Techalloy	881668
Technology for Energy	861298
Technology for Energy	871508
Technology for Energy	881748
Tektronics	890728
Tektronix	871288
Tektronix	880908



<u>SUPPLIER'S NAME</u>	<u>AUDIT NO.</u>
Teledyne Engineering	860408
Terry Turbine	861328
Therman Manufacturing Co.	871518
Therman Mfg.	881418
Tioga	881998
Tobar, Inc.	880188
Tracor Westronics	890468
Tracor Westronics	890798
Tube Sales	870898
Ultraviolet	890148
Unistrut Corporation	881678
Unitech Tasting, Inc.	880158
U. S. Welding	872388
U.S. Welding	882068
Valcor	871528
Valcor Engineering	861538
Valcor Engineering	881808
Velan Valve	860458
Velan Valve	881758
Ventura Valve	882548
Victoreen	880778
Victoreen	890488
Visalia Electric	882708
Vogt Machine Co., Henry	862638
Volometrics	891248
Wahl	891188
Wahl Instruments	871298
Wahl Instruments	881378
Wallace and Tiernan	871388
Wallace & Tiernan	881108
Webber Gage	872698
Webber Gage	882658
Weldstar	882618
Westinghouse Hittman	860658
Westinghouse-Hittman	870888
WFI Nuclear	883038
Wilson Instruments	890608
Wilson-Rockwell	871308
Wyle Lab	870138
Wyle Laboratories	880248
Wyle Labs	882378
Yarvey Corp.	860858
Zetec, Inc.	882718
Zurn Industries	872138
Zurn Industries	882518



ATTACHMENT 3

- (1) A & C ENGINEERING CO
- (2) AGFA-DEVAERT, INC
- (3) AINSWORTH PRODUCTS
- (4) ALLEGHENY LUDLUM STEEL CORP
- (5) ALLOY WOODS INC
- (6) ALLOY STAINLESS PRODUCTS CO
- (7) ALNOR INSTRUMENTS CO
- (8) AMERACE CORP
- (9) AMERICAN AIR FILTER
- (10) AMERICAN GAGE & INSTRUMENT CO
- (11) AMERON PROTECTIVE
- (12) AMERSHAM CORPORATION
- (13) ANALYTICS INC
- (14) ANAMET LABORATORIES
- (15) ANCHOR/DARLING INDUSTRIES (HATFIELD)
- (16) ANCHOR/DARLING VALVE (WILLIAMSPORT)
- (17) ANDERSON GREENWOOD
- (18) ARCOB CORPORATION
- (19) ATWOOD & MORRELL CO INC
- (20) AUTOMATIC SWITCH CO
- (21) BAILEY CONTROLS CO
- (22) BATTELLE PACIFIC NORTHWEST LAB
- (23) BETHLEHEM STEEL CORP
- (24) BORG-WARNER INDUSTRIES PRODUCT
- (25) BOSTON INSULATED WIRE & CABLE
- (26) BRAMMER STANDARD
- (27) BRAND REX CO



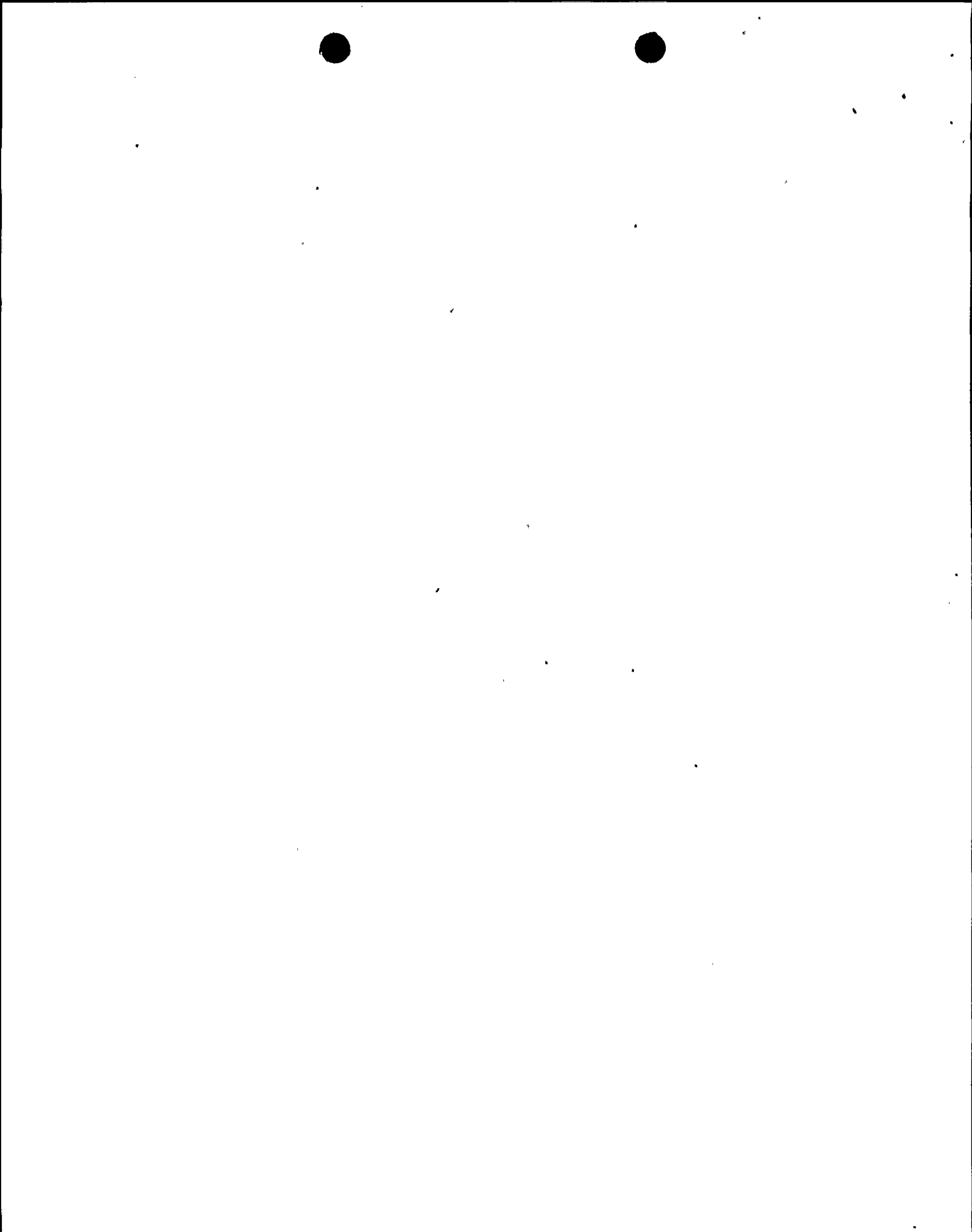
- (28) BROOKS INSTRUMENTS
- (29) BROWNARD STRUCTURAL STEEL
- (30) C&S VALVE CO
- (31) CAJON CO
- (32) CAMILLE BAUER INC (TOMAR INC)
- (33) CAROLINE CO
- (34) CARDINAL INDUSTRIAL
- (35) CHEM-NUCLEAR SYSTEMS INC
- (36) CHESTERTON, A. W.
- (37) COAST WELDING SUPPLY INC
- (38) COLONIAL MACHINE CO
- (39) COLORADO ENGINEERING
- (40) COMBUSTION ENGINEERING INC
- (41) COMSIP INC
- (42) CONTEL CORP
- (43) CONAM INSPECTION INC
- (44) CONAX BUFFALO CORP
- (45) CONTROL COMPONENTS INC
- (46) CONTROLTECH CORP
- (47) CONTROMATICS
- (48) COPEK-VULCAN INC
- (49) CRANE-ALOYCO INC
- (50) CRAWFORD FITTING CO
- (51) CRUSEY VALVE
- (52) CUSTOM ALLOY CORP
- (53) DALFI CAL LAB
- (54) DAVIS INSTRUMENTS MFG CO INC



- (55) DH INSTRUMENTS INC
- (56) DRAGON VALVE INC
- (57) DOSITEC INC
- (58) DO ALL - AA JARSON
- (59) DRESSER INDUSTRIES
- (60) DURATEK CORP
- (61) DYTRAN INSTRUMENT INC
- (62) EARTH SCIENCE ASSOCIATES
- (63) EATON CORP
- (64) EBELINE INSTRUMENTS CORP
- (65) E. I. INTERNATIONAL
- (66) ELECTRO TEST INC
- (67) ENDEVCO INC
- (68) ENGLEHARD CORP
- (69) ENVIRONMENTAL ENGINEERING
- (70) FALK CORP
- (71) FARWELL & HENDRICKS
- (72) FISHER CONTROLS CO INC
- (73) FLANDERS FILTERS INC
- (74) FLUID COMPONENTS INC
- (75) FLUKE, JOHN MFG CO
- (76) FOXBORO CO
- (77) FURMANITE CO
- (78) GA TECHNOLOGIES
- (79) GAMMA-MATRICS
- (80) GENERAL EASTERN
- (81) GENERAL PHYSICS INSTRUMENTS



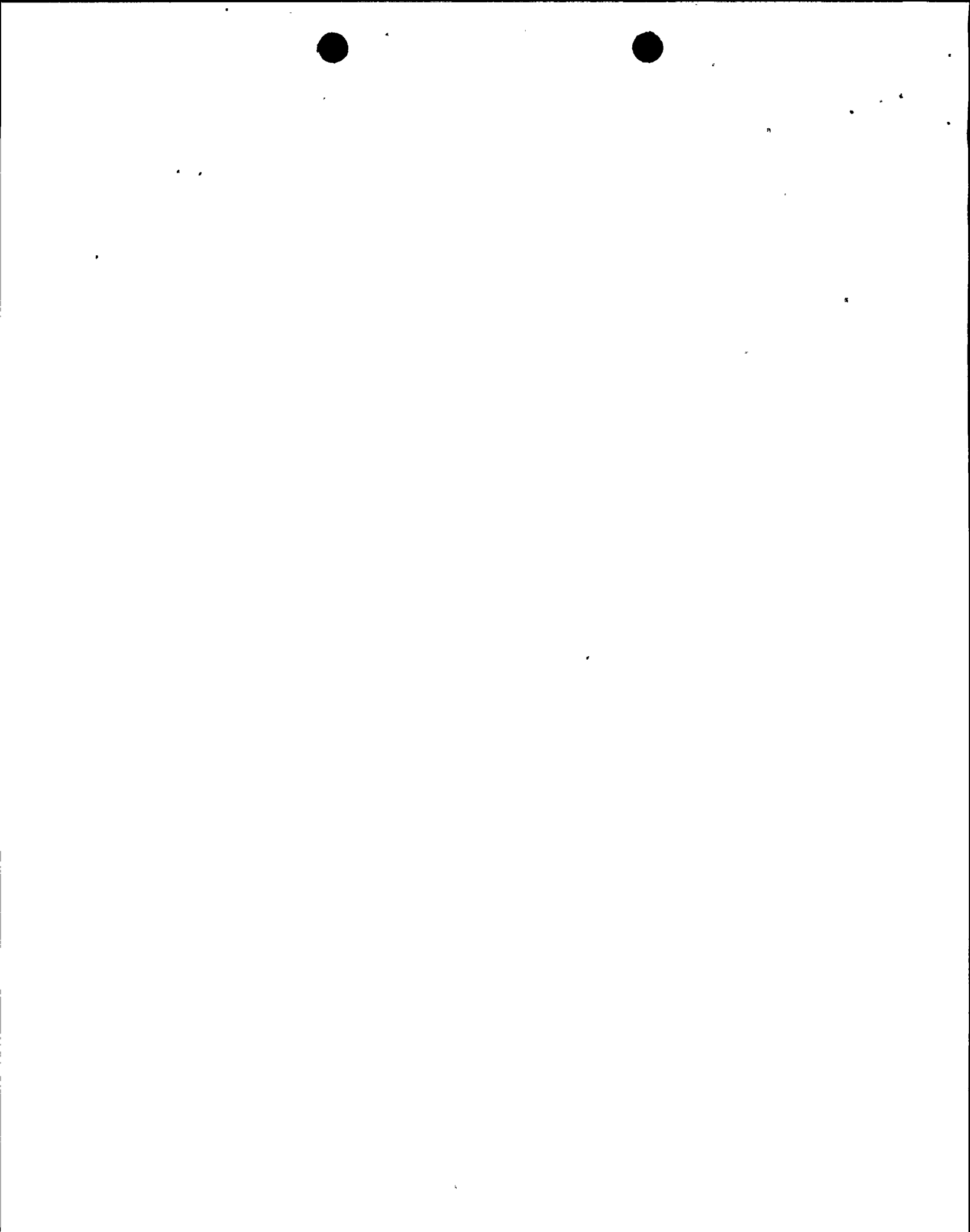
- (82) GENERAL RADIO INC
- (83) GENERAL TECHNICAL SERVICES
- (84) GOULDS PUMPS INC
- (85) GRINNELL CORP (FULLERTON, CA)
- (86) GRINNELL CORP (CRANSTON, RHODE ISLAND)
- (87) HARMISCHFROGER P&H INC
- (88) HATCH INC
- (89) HAYWARD-TAYLOR PUMP CO
- (90) HEWLETT-PACKARD CO
- (91) HILTI INDUSTRIES INC
- (92) HOLTEC INTERNATIONAL
- (93) HUB INC
- (94) IMPERIAL CLEVITE EASTMAN
- (95) ISOTOPE PRODUCTS LAB
- (96) ITT BARTON (ITT GENERAL CONTROLS)
- (97) ITT ENGINEERED VALVE
- (98) JOHNSTON PUMP CO
- (99) JOY MANUFACTURING
- (100) KEROTEST MFG CORP
- (101) KNOPP INC
- (102) KRAUTERAMER-BRANSON INC
- (103) LIBERTY EQUIPMENT SUPPLY CO
- (104) MASCHILLAN-DRESSER INDUSTRIES
- (105) METAL BELLOWES CORP
- (106) MINE SAFETY APPLIANCES CO
- (107) MRS INSTRUMENTS
- (108) MOORE INDUSTRIES INC



- 25715-158 17742 F&E RESEARCH CENTER 8557250 128817 P.8
- (109) NIS SYSTEMS CORP
 - (110) NAMCO CONTROLS
 - (111) NATIONAL TECHNICAL SYSTEMS
 - (112) NPS INDUSTRIES
 - (113) NUCLEAR AIR FILTRATION TESTING ASSOCIATES
 - (114) NUCLEAR CONSULTING SERVICES INC
 - (115) NUCLEAR ENERGY SERVICES INC/DYNACON-JDE SERVICES
 - (116) NUTHEM INTERNATIONAL
 - (117) OAT, JOSEPH CORP
 - (118) PACIFIC CALIBRATION SERVICES
 - (119) PACIFIC NUCLEAR SYSTEMS
 - (120) PACIFIC SCIENTIFIC CO
 - (121) PACIFIC & WORTHINGTON PUMPS
 - (122) FALL TRINITY MICRO CORP
 - (123) PARKER SEAL CO
 - (124) PAUL-MONROE ENERTECH
 - (125) PCB PIEZOTRONICS
 - (126) PLANT INSPECTION CO
 - (127) POTTER & BRUNFIELD
 - (128) PRESEAY CORP
 - (129) PROMATEC
 - (130) QUALINETRICS
 - (131) RADCAL CORP
 - (132) RADIAN RESEARCH
 - (133) RADIATION STERILIZERS
 - (134) RADNOR ALLOYS (GUYON ALLOYS)
 - (135) RAYCHEM CORP



- (136) REED NATIONAL AIR PRODUCTS
- (137) REUTER-STOKES
- (138) RICK LAKE BEARING
- (139) ROBYN RACKING RING
- (140) ROCKBESTOS CO
- (141) ROCKWELL INTERNATIONAL
- (142) ROSEMOUNT INC
- (143) ROTEK INSTRUMENT CORP
- (144) ROTORK CONTROLS INC
- (145) RUSKA INSTRUMENTS CORP
- (146) RUSKIN MANUFACTURING CO
- (147) SATIN AMERICAN CORP
- (148) SORRENTO ELECTRONICS
- (149) STARRETT. L. S.
- (150) STAVLEY INSTRUMENT
- (151) SULZER BIRNORAM PUMPS
- (152) TARGET ROCK CORP
- (153) TAYLOR INSTRUMENT INC
- (154) TECHALLOY MARYLAND
- (155) TECHNOLOGY FOR ENERGY
- (156) TEKTRONIX INC
- (157) TELEDYNE ENGINEERING
- (158) TERRY STEAM TURBINE CO
- (159) THERMON MFG CO
- (160) TIoga PIPE SUPPLY CO
- (161) TRACOR WESTONICS INC
- (162) TUBE SALES



- (163) ULTRA VIOLET PRODUCTS INC
- (164) UNISTRUT
- (165) US TESTING CO INC
- (166) US WELDING CORP
- (167) VALCOR ENGINEERING CORP
- (168) VELAN VALVE CORP
- (169) VENTURA VALVE & FITTING
- (170) VIBRACON (BOUCHER LABORATORIES)
- (171) VICTOREEN INC
- (172) VISALIA ELECTRIC MOTOR SHOP
- (173) VOUT, HENRY MACHINE CO
- (174) VOIOMETRICS
- (175) WAHL INSTRUMENTS
- (176) WALLACE & TIERRA
- (177) WEBBER GASE DIVISION
- (178) WELDSTAR CO
- (179) WESTINGHOUSE - MITTMAN
- (180) WFI NUCLEAR
- (181) WILSON INSTRUMENT
- (182) WYLE LABORATORIES
- (183) YANWAY CORP
- (184) ZETEC INC
- (185) ZURN INDUSTRIES



ENCLOSURE 2

NRC Request:

2. Your specific plans and schedules to fully assess the adequacy of your vendor audit and of your quality assurance program in general;

PG&E Response:

OVERVIEW

As a result of a previous Part 21 notification by PG&E involving its contractor, Sulzer Bingham (submitted in PG&E's Letter DCL-88-255, dated October 26, 1988), PG&E had already commenced efforts to assess the adequacy of audits involving Sulzer Bingham and the overall quality assurance program (Enclosure 3).

Additionally, NRC Information Notice No. (IN) 88-35 was issued to "alert addressees to potential problems resulting from inadequately performed licensee audits at vendor facilities which may not reveal the vendor's failure to implement critical portions of its quality assurance (QA) program." Further, subsequent to the issuance of IN 88-35, NRC IN 88-95 was issued and noted that "... it appears that past licensee audits have not been effective in assuring compliance with regulatory requirements."

PG&E has been actively pursuing that focus on issues raised in the previous Part 21 notification as well as the NRC Notices. PG&E is participating with the NUMARC Nuclear Plant Equipment Procurement (NPEP) Work Group as part of a unified nuclear industry interaction with NRC management on concerns related to procurement. Activities include industry interactions relating to the improvement of procurement practices. In addition, PG&E is actively participating in the performance of joint utility audits as a member of the Nuclear Procurement Issues Council (NUPIC), which is a combination of the previous Nuclear Supplier QA Committee (NSQAC) and the Coordinating Agency for Supplier Evaluation, Nuclear Section (CASE).

The awareness of these industry concerns led PG&E to identify that, contrary to PG&E QA Manual requirements, a contract QA auditor potentially performed incomplete and/or inadequate supplier audits which did not identify the suppliers' failure to implement portions of their QA programs. PG&E Nonconformance Report (NCR) DCO-89-QA-N007 was initiated to investigate and resolve this concern.

PG&E has initiated ongoing efforts to evaluate, investigate and resolve the issues as discussed in the July 25, 1989 meeting with the NRC. The nature of these efforts include technical and non-technical investigations. Different groups have been assigned for each review. In addition, a coordinator (Special Investigation Coordinator) has been appointed by the PG&E President to assure cohesiveness in the investigations and provide an independent review of the findings.



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1

The technical review is being conducted in accordance with PG&E's existing procedures for Nonconformance Review by a Technical Review Group (TRG). The non-technical review is being conducted by PG&E's Internal Auditing Department (IAD) which is responsible for Corporate audits of financial records and contract administration data within all areas of PG&E. The special investigation coordinator will facilitate the interface process for all investigative efforts.

TECHNICAL INVESTIGATION

PG&E is using the Nonconformance/TRG process to investigate the technical issues related to suspected incomplete and/or inaccurate supplier audits conducted under an outside contractor's QA program. The TRG is chaired by the Manager of Quality Assurance and has representation from all potentially affected departments. The TRG investigation will include an evaluation of all reports of contracted supplier audits in question, the qualification status of all suppliers that were qualified by the audits in question, the acceptability of all equipment/parts purchased from any supplier in question, the impact on the operation of Diablo Canyon, the reportability and determination of root cause, and any necessary corrective actions. The technical review includes discussions with the outside contractors and the results of their internal investigation. An outline of the plan and schedule for the investigation are detailed in Attachment 1.

NON-TECHNICAL INVESTIGATION

The IAD is conducting an independent audit of the nontechnical issues of this incident. This audit will determine how alleged irregularities with the supplier audit program, if true, were able to occur and continue uncorrected. This will include all phases of contract administration and related activities from vendor qualification, bid, award, execution administration, contract compliance and settlements to date. The audit will encompass an examination of the business relationship between PG&E and its outside contractors and their personnel. The tentative scope of this audit will cover the period 1987 through the current date. Pertinent contract documents and invoices will be examined. Selected personnel from both PG&E and consultants will be interviewed. The consultants' offices will be visited to examine their records as well as to interview pertinent personnel. Attachment 2 details the plan and schedule for this audit.

INVESTIGATION COORDINATION

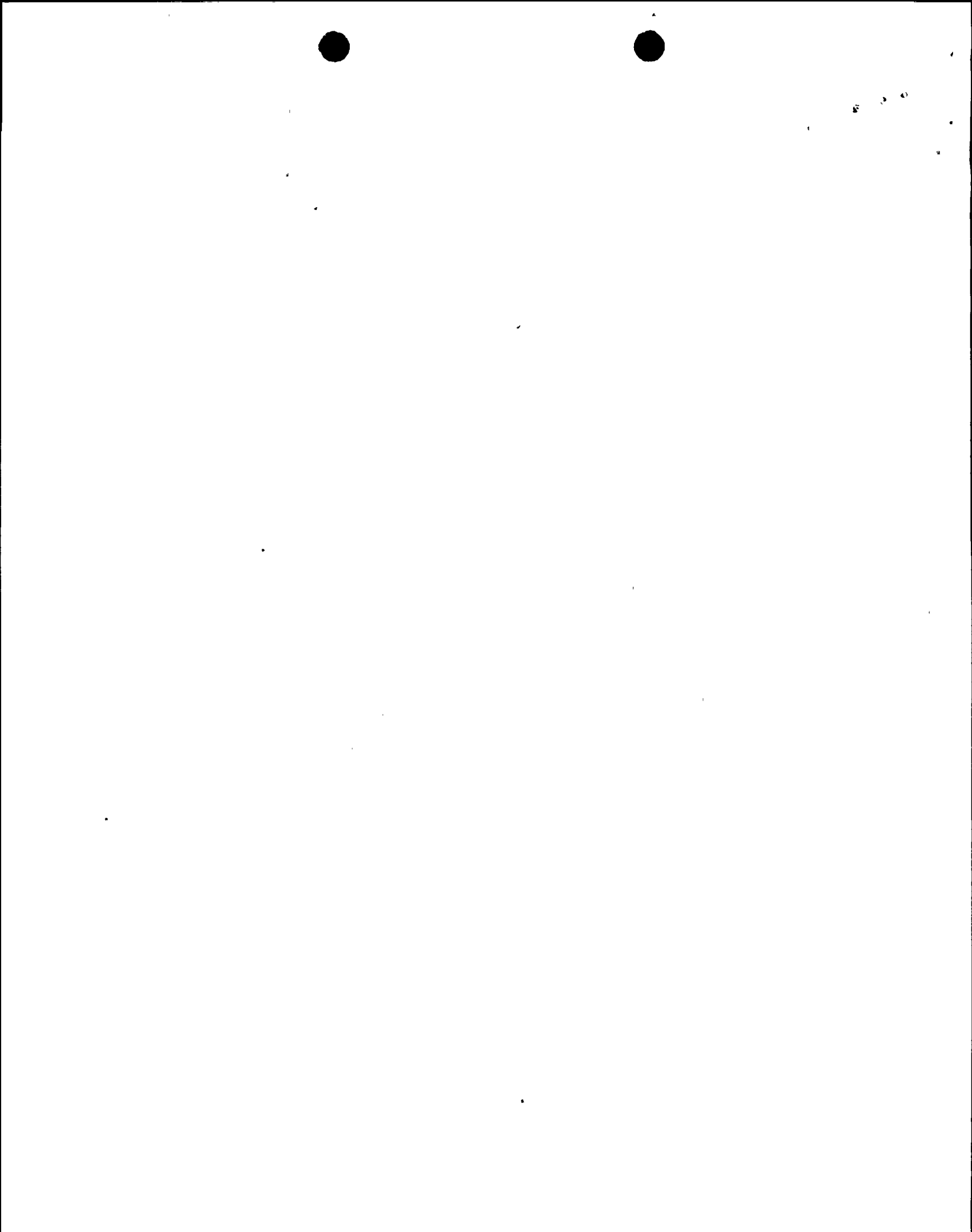
PG&E's President has appointed a special investigation coordinator to provide an effective interface between the TRG and the IAD audit team. This coordinator will provide an integrated assessment of the results of these two efforts to the President. The scope of the IAD audit is of sufficient breadth to uncover issues beyond the scope of the technical investigation by the TRG. Any issue identified which could potentially affect the quality program in general will be evaluated by the special investigation coordinator and recommendations for resolution will be made to the President. If warranted, external resources will be used to make further evaluations and recommendations regarding any identified weaknesses or deficiencies in the quality assurance program.



6 2 4

SUMMARY

PG&E has initiated comprehensive investigative efforts to fully assess the adequacy of the vendor audit and quality assurance program in general and its implications including the results of investigations conducted by the contractor's organization. PG&E will thoroughly review and evaluate these and any other issues which arise through the investigations.



ENCLOSURE 2

Attachment 1

TECHNICAL INVESTIGATION OUTLINE

Actual/Projected
Time Frames
1989

Work Outline

06/29	PG&E QA Manager informed of potentially inadequate audits performed by a contract auditor based on previous audits 87208S of Sulzer Bingham; 87148S and 88232S of Pacific and Worthington Pump; and 88012S of ITT Barton not identifying critical inadequacies in the suppliers QA program.
07/04	Performed review of suspect audit reports and compared them with latest audits of Sulzer Bingham (88244S); Pacific and Worthington Pump (89103S) and ITT Barton (89129S).
07/07	Initiated Nonconformance Report DCO-89-QA-N007 to investigate and resolve this concern. Contractor senior management contacted and advised of this concern.
07/11	Held first TRG meeting.
07/11 - 07/24	Reviewed audit files to determine scope of problem.
07/25	Met with NRC Region V/OI
07/26	Held second TRG meeting.
07/28 - 08/03	Verified the qualification status of suppliers who provided equipment/materials installed at DCP, that were audited by contractors.
07/31 and 08/02	Met with senior representatives of outside contractor.
08/04 - 08/05	Held third TRG meeting.
08/05	Issued JCO.
08/05	Met with senior representatives of outside contractor to discuss contractor's report.
08/07 - 08/31	Perform evaluation of audit reports of remaining suppliers (suppliers who have not provided installed equipment/services) that were audited by contractors to verify acceptability of qualification; evaluate the adequacy of PG&E's audit program in general; assess the adequacy of PG&E's vendor audit program in general as performed by PG&E and its contractors.



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ENCLOSURE 2

Attachment 1 (Continued)

TECHNICAL INVESTIGATION OUTLINE

Actual/Projected
Time Frames
1989

Work Outline

10/01

Review and evaluate the results of the IAD report that are pertinent to the technical investigation. Identify root causes and any contributing causes and schedule all necessary corrective actions.



11-11-11

ENCLOSURE 2

Attachment 2

INTERNAL AUDITING DEPARTMENT
AUDIT OF CONTRACTOR PERFORMANCE ON SUPPLIER AUDITS

Actual/Projected
Time Frames
1989

Work Outline

- | | |
|---------------|---|
| 07/28 - 08/04 | A. Perform preliminary work. <ul style="list-style-type: none">• Collect and review vendor contracts, invoices, and related files. |
| 07/31 | <ul style="list-style-type: none">• Obtain contractor concurrence of dates of IAD's review of their records. |
| 07/31 - 08/11 | B. Review expense reports of QA employees involved with vendors. |
| 08/07 - 08/11 | C. Determine location of contractor records. Prepare and submit preliminary document requests to contractor for audit-related records. |
| 08/14 - 08/18 | D. Review QA contract files, correspondence, and procedures for indications of favoritism or questionable situations. |
| 08/11 - 08/18 | E. Interview PG&E employees and former employees, as necessary, to clarify concerns and gather detailed information. |
| 08/01 - 08/18 | F. Interview contractor employees and former employees, as necessary, to clarify concerns and gather detailed information. |
| 08/21 - 09/08 | G. Perform audits in the offices of contractor (and other contractors as appropriate) for compliance with the contract and to provide assurance that PG&E employees involved in the administration of the contract have carried out their responsibilities in conformity with the Company's policies. |
| 09/15 | H. Prepare draft audit report for the special investigation coordinator to incorporate in NPG's response to the NRC. |

Note: The above time frames are subject to change if more than the expected number of individuals are interviewed, audits of additional contractors are necessary, contractor records are found to be in more than two locations, the condition and accessibility of these records are below the normal standards expected, and/or additions to the audit scope are deemed necessary by IAD and/or NPG management.

2811S/0071K



10-11-11

ENCLOSURE 3

NRC Request:

3. Your determination of reportability and generic applicability of the concerns.

PG&E Response:

DETERMINATION OF REPORTABILITY

As discussed in the previous enclosures, the potential deficiencies of inadequate supplier audits have been evaluated for their impact upon safe operation of Units 1 and 2 of the Diablo Canyon Power Plant (DCPP). PG&E has performed a technical evaluation of these concerns and determined that any discrepant material identified to be installed at DCPP during the period of question did not have any adverse impact upon operation. A similar evaluation had already been performed to support a previous Part 21 notification involving the concern with the ASW pump impellers. This previous Part 21 notification (PG&E Letter DCL-88-255, dated October 26, 1988) forwarded LER 1-88-029-00 which concluded that the discrepant impellers did not have an adverse impact upon DCPP operation. The NRC performed a technical review of this notification (NRC memorandum dated February 24, 1989 from C. Y. Cheng to C. H. Berlinger) and found PG&E's actions to be adequate. In particular, PG&E JCO 89-18 (Enclosure 1 of this letter) provides a further safety analysis and a 50.59 evaluation, which also conclude that these issues do not create an unreviewed safety question and will not adversely affect the public health and safety. Consequently, PG&E is confident that the issues raised in the July 27 Region V letter do not involve a substantial safety hazard at DCPP.

Based on the investigations to date, PG&E has concluded that these issues do not have any generic applicability and do not constitute a defect or noncompliance under Part 21. PG&E is continuing its investigations and the results of these investigations will be furnished to Region V as additional information to this initial response pursuant to 10 CFR 50.54.

The following is PG&E's assessment of reportability.

ASSESSMENT OF REPORTABILITY

As referenced above, PG&E has submitted a previous Part 21 notification, dated October 26, 1988, which forwarded LER 1-88-029-00 for Diablo Canyon Units 1 and 2. That notification identified the root cause to be that the vendor, Sulzer Bingham, failed to provide the impeller as specified in procurement documents due to deficiencies regarding the contractor's control of special processes and suppliers of special processes. As discussed in that notification, PG&E's corrective actions included continuing to investigate this problem, and plans to supplement that notification when PG&E's investigation and determination of further corrective actions are completed, including the identification of any further significant information. Further, PG&E also removed the vendor from the qualified suppliers list, pending



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resolution of deficiencies identified by QA audit 88244S and documented evidence of deviation from purchase specifications on items that require special processes.

As noted in Enclosure 1, one of the examples leading to the potential concern of inadequate supplier audits involving failures to implement portions of the supplier's QA program was Sulzer Bingham. As part of PG&E's ongoing investigations of Sulzer Bingham and concerns resulting from the October 1988 Part 21 notification, it was found that Audit 88244S identified deficiencies that a previous Audit, 87208S, failed to find. These deficiencies included (1) failure to use the ASME Section III QA program and (2) substitution of materials contrary to the requirements of purchase orders. However, as documented in the October 1988 notification and as discussed above, these deficiencies do not constitute a safety concern. Further, with respect to the matter of inadequate audits, PG&E believes that reasonable audit/supervision mechanisms at other utilities should preclude similar occurrences; therefore, this matter would not have generic applicability. Consequently, PG&E has concluded these issues do not involve a reportable event. Nevertheless, as stated in LER 1-88-029-00, additional information regarding these issues, as well as PG&E's continued investigations and evaluations into this matter, will be documented in a supplement to that LER. That supplement will also be provided as additional information to this initial 10 CFR 50.54(f) response as stated above.

Additionally, PG&E has shared potentially deficient audit reports with other parties. PG&E will immediately notify them of the potentially deficient audit reports. Further, PG&E has determined that parts delivered to DCPD from potentially affected vendors have not been provided to other parties by PG&E.

Finally, PG&E did find suppliers that either did not have a QA program that complied with 10 CFR 50 Appendix B or failed to implement that program for supplying non-code safety-related parts. However, these issues have been previously identified by the nuclear industry and confirmed with NRC IN 88-35 and IN 88-95 and, consequently, are not reportable by PG&E under 10 CFR 21. PG&E will, however, continue its investigations to address the issues raised in these notices and will inform Region V of any significant developments.



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