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September 14, 2015

Mr. Ken Bruno
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: State of California – Public Utilities Commission

General Order 112 Audit – PG&E's Yosemite Division

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112 audit of PG&E's Yosemite Division from May 4-8, 2015. On August 13, 2015, the SED submitted their audit report, identifying violations and findings. Attached is PG&E's response to the CPUC audit report.

Please contact Larry Berg at (925) 328-5758 or lmb5@pge.com for any questions you may have regarding this response.

Sincerely,

/S/

Michael Falk

Attachments

cc: Banu Acimis, CPUC Aimee Cauguiran, CPUC Dennis Lee, CPUC Larry Deniston, PG&E Sumeet Singh, PG&E

Finding				
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Туре				
[Internal,				Associated Attachment
NOV, AOC]	Finding #	Finding	Response	(File Name)
A. Internal	1	Prior to the start of the inspection, PG&E provided SED its findings from the internal review it conducted for	2) Four specific programming enhancements to SAP to address rectifier maintenance are scheduled to be	8&9) 2013 Yosemite Late Leaks_CONF.pdf
Findings		Yosemite Division (Division). Some of PG&E's internal review findings are violations of PG&E's standards, and	completed by March 2016.	2014 Grade 1 Late Leak Repair_CONF.pdf
		are therefore violations of Title 49 Code of Federal Regulations (CFR), §192.605(a). Table 1 lists all of the	5) All exposed span inspections in Yosemite Division are in the SAP maintenance plan. An enhancement to SAP is	2014 Grade 2 Late Leak Repair_CONF.pdf
		violations from PG&E's internal review.	planned for the end of March 2016 to capture the AC Span inspection data and the generation of notification for	2014 Grade 3 Late Leak Rechecks_CONF.pdf
		Please provide an update to the pending preventive actions including the items listed as N/A for gas leaks	possible remediation work.	
		repaired or rechecked late which were not complete at the time of the audit along with supporting documents	. 7) The validations for Welder ID and Weld Inspection are in mobile A-form entry and in SAP. Based on the repair	
		2 2014 Missed Rectifier Maintenence SAP Fix to be completed 12/31/15	activity and material selections, these fields become mandatory. The supervisor review, which is now required for	
		5 Missed span inspection/corrective action Spans to be in SAP by 12/31/2015	all belowground repairs, must include a review of the correct repair activity and material to ensure that the correct	
		7 Welder/Inspector ID not in recorded on A-form SAP update by 12/31/2015	choices are being made to activate the validations.	
		8 2014 Leaks repaired or checked Late N/A - Provide Supporting doc	8&9) All 7 leaks reported late in 2013 have been repaired.	
		9 2013 Leaks repaired or checked Late N/A - Provide supporting doc	13 of the 20 leaks reported late in 2014 have been repaired.	
			7 of the Grade 3 leaks checked late in 2014 are still open and being rechecked on a normal cycle.	
			To prevent recurrence, a new Daily Repair and Recheck Report is being generated and distributed to all	
			Construction and Leak Survey Supervisors and Superintendents as well as the Mapping Group. This report brings	
			visibility to the repairs and rechecks that are coming due, up to 90 days out. This allows the work to be scheduled	
			and executed prior to the compliance dates.	

Finding Type [Internal, NOV, AOC]	<u> </u>	Response	Associated Attachment (File Name)
B. NOV	1. Title 49 Code of Federal Regulations (CFR) 192.465 External corrosion control: Monitoring §192.465 (e) states in part: "(e) After the initial evaluation required by §§ 192.455(b) and (c) and 192.457(b), each operator must, not less than every 3 years at intervals not exceeding 39 months, reevaluate its unprotected pipelines and cathodically protect them in accordance with this subpart in areas in which active corrosion is found. The operator must determine the areas of active corrosion by electrical survey. However, on distribution lines and where an electrical survey is impractical on transmission lines, areas of active corrosion may be determined by other means that include review and analysis of leak repair and inspection records, corrosion monitoring records, exposed pipe inspection records, and the pipeline environment" Division records show that Division has a total of 6.58 miles of bare unprotected distribution pipeline and it conducts leak surveys as per §192.465 (e) in order to determine the areas of active corrosion for this pipeline. In a review of Division's 3-year leak survey records of the bare unprotected pipelines, SED found two plat maps, 3301E1 & 3301F1, where Division did not conduct leak surveys in 2009. Specifically, area shown on plat map 3301E1, that consisted of 158 ft. of main pipeline, was last leak surveyed on 9/18/2012; however, the same facilities existed in 2009, were not leak surveyed in 2009. Similarly, area shown on plat map 3301F1, that consists of 3420 ft. of main pipeline, was last leak surveyed on 9/24/2012; however, only a portion of that pipeline that consists of 900 ft. of main pipeline, was leak surveyed on 9/9/2009. The remaining approximately 2400 ft. main pipeline was not leak surveyed in 2009. Please inform SED of the measures that Division has taken to prevent similar deficiencies in the future.	Project. As part of this project we will create a new "world view" cathodic protection area map which will identify the boundaries of all known cathodic protection areas (CPAs). These maps will also be used to identify any pipe not included in an existing CPA which will be the unprotected pipe. PG&E will confirm this pipe is being leak surveyed every 3 years and will evaluate the pipe and either protect it or have it replaced. The goal of the Project is to eliminate unprotected steel distribution pipe. The Project is anticipated to run through the end of 2021.	

Finding				
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[Internal,				Associated Attachment
NOV, AOC]	Finding #	Finding	Response	(File Name)
NOV	2	2. Title 49, CFR, §192.481 Atmospheric corrosion control: Monitoring.	These 16 exposed span locations were previously reported during the October 21-25, 2013 CPUC audit of Yosemite	,
		§192.481 states in part:	Division. See Item #18 of PG&E's internal review findings in the attached 2013 Yosemite Division Audit Letter. The	,,,
		(a)"Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for	April 2, 2015 letter from CPUC served as the official closure of the 2013 Division Inspection for Yosemite Division.	
		evidence of atmospheric corrosion, as follows: If the pipeline is located onshore, then the frequency of	These locations are in the SAP maintenance plan for 3-year atmospheric corrosion inspection intervals.	
		inspections is at least once every 3 calendar years, but within intervals not exceeding 39 months."	3 of these 16 locations have jobs created to remediate their coating condition, 7 are currently being evaluated and	
			prioritized, and 6 have no outstanding coating issue. Based on the last inspection date, for the 16 locations, PG&E	
		SED reviewed Division's Exposed Piping & Span inspection records and noted that Division exceeded the 39-	is currently within the required 39-month inspection timeline.	
		month inspection timeline for atmospheric corrosion (AC) inspections of the spans and mains shown in Table 2; therefore, Division failed to comply with §192.481 (a) requirements.	including spans. PG&E estimates that a new procedure, TD-4188P-02, "Atmospheric corrosion Inspection of	
		SED noted that for Spans # 3 & 13, Division exceeded eight years, and for Span # 4, Division exceeded seven	Exposed Assets," will be completed by the 4th quarter of 2015.	
		years between inspections. Additionally, SED noted that most of the findings from previous inspections were	In addition, PG&E currently has a program in place to remediate all existing atmospheric corrosion conditions for	
		not corrected; therefore, they were identified again during the following inspections.	exposed spans. This program includes data gathering, field investigation, engineering prioritization, planning,	
			design, construction, and recoating. The prioritization process is based on the severity of the coating condition	
		Table 2- Span inspections exceeded 39-month inspection cycle (16 locations not shown here due to size. See	found during the Engineering Inspection. The scheduling process is based on the risk and consequences associated	
		SED August 13, 2015 letter)	with the project. Once these steps are completed, the assets that require remediation are assigned to the	
			Corrosion PMO (Project Management Organization) for the planning and permitting phase of the project.	
NOV	3	3. During the inspection, Division was unable to provide AC maps showing the last two AC inspections	See attached "NOV 3 - Table 3 - Updated AC Meter Set Inspections_CONF.pdf"	NOV 3 - Table 3 - Updated AC Meter Set
		conducted in the Division. After the inspection, PG&E provided several files that showed the list of services		Inspections_CONF
		where Division conducted AC inspections in the years 2011, 2012, and 2014. Additionally, in some of areas,		
		Division scheduled some AC inspections to be performed in 2015. However, Division was not able to demonstrate that it completed inspections of its exposed pipeline for		
		evidence of AC within 39 months from the previous inspections and Division did not provide records		
		demonstrating that the AC indications discovered during the inspections have been corrected.		
		SED analyzed the excel spreadsheets and compiled the following data shown in Table 3 below:		
		Table 3- AC meter-set inspections conducted in the Division by years		
		Based on the data Division provided, SED could not verify that Division complied with the requirements of		
		§192.481(a) and (c).		
		Please provide SED with documents to show compliance with §192.481 (a) and (c) and update the numbers in Table 3. Please also specify the total number of services that required AC inspections in the Division in 2011 and		
		the total number of services that were inspected by the end of 2014 along with the remaining services to be		
		inspected after 2014.		
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NOV, AOC]	Finding #	Finding 4. Title 40 CER \$102.491 Atmospheric corrector control: Manitoring Title 40 CER \$102.491 states in parti/s) If	Response	(File Name)
NOV	4	4. Title 49 CFR §192.481 Atmospheric corrosion control: Monitoring. Title 49 CFR §192.481 states in part:(c) If atmospheric corrosion is found during an inspection, the operator must provide protection against the	All 9 of these locations are currently under engineering inspection and prioritization of the coating condition and do not constitute a threat to the integrity of the pipe.	
		corrosion as required by §192.479.Title 49 CFR §192.605 Procedural manual for operations, maintenance, and	as not so notice a time at the integrity of the piper	
		emergencies. §192.605 states in part:"(a) Each operator shall prepare and follow for each pipeline, a manual of	PG&E is currently updating the inspection and remediation process and procedure for atmospheric corrosion,	
		written procedures for conduction operations and maintenance activities and for emergency response"SED	including spans. PG&E estimates that a new procedure, TD-4188P-02, "Atmospheric corrosion Inspection of	
		reviewed Division's Exposed Piping and Span inspection records and noted that Division conducted inspections	Exposed Assets," will be completed by the 4th quarter of 2015.	
		in 2010 and identified some deficiencies. SED also noted that since most of the findings from the 2010		
		inspections were not corrected by the next inspection, the same issues were found again during the 2013	In addition, PG&E currently has a program in place to remediate all existing atmospheric corrosion conditions for	
		inspections. SED also found that majority of these deficiencies were still pending corrective actions as of May 2015. Division has conducted latest inspections at most of these spans in April 2015 and recorded the same	exposed spans. This program includes data gathering, field investigation, engineering prioritization, planning, design, construction, and recoating. The prioritization process is based on the severity of the coating condition	
		deficiencies as the previous ones documented in 2010 and 2013. PG&E's Utility Procedure: TD-4412P-07	found during the Engineering Inspection. The scheduling process is based on the severity of the counting condition	
		Effective: September 2009 states:	with the project. Once these steps are completed, the assets that require remediation are assigned to the	
		Patrolling Pipelines and Mains "Corrective Actions:1) Be prepared to correct minor conditions found during the	Corrosion PMO (Project Management Organization) for the planning and permitting phase of the project.	
		patrol, if possible (e.g., missing stickers, ensure markers are upright). 2) Contact the responsible supervisor or		
		superintendent as soon as possible concerning conditions that require immediate attention but cannot be		
		corrected during the patrol itself. 3) Enter conditions which require follow-up attention and priority work		
		scheduling (but which can be deferred) into a work management database as a Systems Applications and Products [SAP] Notification or Pipeline Maintenance [PLM] Work Request" Additionally, Gas Information		
		Bulletin, Bulletin Number: 171 FOR IMMEDIATE RELEASE Date: 11/26/03 for Atmospheric Corrosion Program		
		for Exposed Mains and ServicesTable titled "Patrolling Gas Distribution Mains and Service Lines Normally		
		Exposed to the Atmosphere" specifies the Recommended Corrective Time Period based Conditions for two		
		categories:Identified Atmospherically Corrosive Location and Non-Atmospherically Corrosive Location.		
		According to Table titled "Patrolling Gas Distribution Mains and Service Lines Normally Exposed to the		
		Atmosphere" the longest allowed corrective time period is 12 months for both categories. TD-4412P-07		
		Effective: September 2009 was effective until PG&E published another version, Rev. 5, with Publication Date: 12/18/2013. According to the latest version of TD-4412P-07-F02, "Exposed Piping and Spans" form, employees		
		are instructed to do the following: "Describe abnormal conditions below (boxes other than "OK" checked		
		above). If corrosion pitting or mechanical damage is observed, contact the local supervisor and corrosion		
		engineering as soon as possible. Record corrective actions taken, including contacting other parties." Table 4		
		shows the findings of the last 3 span inspections conducted in 2010, 2013, and 2015. SED determined that after		
		about five years after the initial discovery of the conditions requiring remedial actions, Division has not taken		
		necessary corrective actions. This is beyond the allowed mitigation interval stated in PG&E's procedures and		
100	4	forms. Division failed to follow PG&E's internal procedure TD-4412P-07; therefore, PG&E is in violation of	CDA 2404 04	AOC 4 CDA 2404 04 CONF will
AOC		1. Title 49 CFR §192.465 External corrosion control: Monitoring. §192.465 (d) states in part:	CPA 3181-01 was restored 8/10/2015 after the new deep well was commissioned. See attached file AOC-1 CPA 3181-01_CONF.pdf.	AOC-1 CPA 3181-01_CONF.pdf
		"Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring."	3101-01_CONF.puj.	
		Each operator shall take prompt remedial action to correct any deficiencies maleuted by the monitoring.		
		On 11/4/2014, Division found two bi-monthly P/S locations less negative than85 volts (13737 and 13236		
		Yosemite Blvd (Hwy 132)), CPA-3181-01, Waterford. When staff checked the rectifier, 16-377, located at N/S La		
		Gallina Ave. @ "D" St., Waterford, they discovered that the rectifier was not functioning. Action plan record		
		dated 12/8/14 stated "submitted paper work for new deep well anode". During the field visit on 5/4/15		
		Division recorded771 V at the test locations and the anode has not been installed yet.		
		Please inform SED of the corrective actions when they are completed.		
		in lease another see of the corrective actions when they are completed.		

Finding Type [Internal, NOV, AOC]	Finding #	•	Response	Associated Attachment (File Name)
AOC	2	2. CPA-3178-04, at two locations noted below, Division recorded the following P/S reads which did not meet the minimum85 V criteria. P/S read locations Date Read (V) Date Read (V) Date Read (V) Date Read (V) 3416 WYCLIFF DR 10/19/14393 12/6/14 .493 2/5/15526 4/7/15522 2825 SCENIC BEND 10/19/14426 12/6/14 .551 2/5/15731 4/7/15783 On 12/17/14, staff checked the Rectifier located at W/S Lakewood Ave. 12' N/O Freeport Way, Modesto and recorded 0.0 amperage. Division corrosion records showed that the action plan was created on 11/5/14 and stated that the anode bed depleted. Follow up action plan dated 12/8/14 stated the following: "Possibly tie to another system. Replace deep well anode". 12/17/14 action plan comments are as follows: "Install new deep well anode at rectifier 16-200 to replace failed anode bed on Lakewood Dr., Modesto. Single rectifier system CPA is currently unprotected with no way of bonding to another CPA." Division has other updates after this date; however, the job has not been completed. Therefore, the pipeline in this CPA has not been cathodically protected since October 2014. Please inform SED of the corrective actions when they are completed.	CPA 3178-04 has a replacement deep well, Job # 31129362, scheduled for completion in December 2015. As a temporary measure, a shallow bed anode has been installed and the CP Area has been restored on August 28, 2015.	
AOC	3	3. On 11/1/2013, Division recorded835 V annual P/S read at 322 W. Sierra Dr., Modesto in CPA- 3235-01. Follow action comments dated 1/15/2014 stated "install anodes". Division installed four 32 lb. anodes on 1/31/14 and recorded855 V on 2/25/14. However, the next annual read at this location recorded -570 mV on 11/20/14. Comments on 12/17/14 stated "to have meter insulated". SED did not find any other P/S reads and noted that the system has been down since 11/20/14. Please inform us with the corrective action taken to address the deficiency.	CPA 3235-01 is a small segment of steel main and is monitored annually at 322 West Sierra Drive. PG&E installed galvanic anodes in 2014 to restore adequate cathodic protection without success. The steel main is being replaced with new plastic main as part of a pipe replacement job, pm # 31017437. The job is currently in construction and scheduled for completion in November of 2015. See "AOC-3 3235-01 ANN_CONF.pdf".	AOC-3 3235-01 ANN_CONF.pdf
AOC	4	SED reviewed Division's 10%er P/S reads and noted that Division recorded91 V on 9/22/14. According PG&E's Utility Standard: TD-4181S Publication Date: 03/26/2014 Rev: 0 "6.4 10 Percent (10%er) Monitoring Separately protected short sections of mains less than 100 feet, or separately protected service lines may be monitored on a sampling basis per 49 CFR 192.465 (a). 1.4.3 To ensure facilities are protected until the next monitoring cycle, a driveable anode must be installed if the P/S potentials are less negative than -950 mV with reference to a copper-copper sulfate electrode, with cathodic protection current applied" On 5/7/15, SED and Division visited a 10%er P/S location at 3411 Ellie Ct., Denair and recorded -0.94 V. Division informed SED that this location had been identified as low P/S in September, 2014 and was scheduled to be corrected by installing a driveable anode. SED also noted that Division had already called USA to excavate in order to install the anode. Please inform SED when Division completes the corrective action along with the latest P/S read taken at this	The isolated steel riser (10%er) at 3411 Ellie Ct. was restored 5/14/2015 with a P/S read of -1035 mV. See attached file AOC-4 3411 Ellie Ct_CONF.pdf.	AOC-4 3411 Ellie Ct_CONF.pdf

Finding Type [Internal,				Associated Attachment
NOV, AOC]	Finding #	Finding	Response	(File Name)
AOC		On 5/8/15, during the field visit, SED and Division took the following P/S reads which did not meet the minimum850 V criteria: 833 V at 4573 Hope Ln., N/O Salida Blvd, Salida (bi-monthly), that's been down since 3/3/15831 at 5025 Curtis St., Salida834 2020 Briggsmore Food Max, Modesto, (bi-monthly) Please inform SED when Division completes the corrective actions along with the latest P/S reads taken at this location.	CPA 3176-01 containing the two bi-monthly read locations in Salida was restored 5/22/2015. See attached file AOC-5 CPA 3176-01_CONF.pdf. CPA 3177-13 containing the bi-monthly read location at 2020 Briggsmore was restored 5/13/2015. See attached file AOC-5 CPA 3177-13_CONF.pdf.	AOC-5 CPA 3176-01_CONF.pdf AOC-5 CPA 3177-13_CONF.pdf
AOC		On 5/8/15, during the field visit SED inspected the exposed span GasFM No: E19, Claribel/Claus DFM, Riverbank, Plat # 3178-B5, pipe diameter 8-in and noted that pipe needed to be recoated. Division also noted the same deficiency during the last inspection on 4/24/15. Inspection record also indicated that both air-to-soil transitions and main piping showed light surface rust and require recoating. Please inform SED when Division completes the corrective action along with photos taken at the exposed span.	Notification #110359437 has been created for this location to be evaluated and prioritized for remediation, similar to the 9 locations noted in NOV-4 above. PG&E will notify the SED following the corrective action along with photos.	

Finding Type [Internal, NOV, AOC]	Finding #					Fin	ding			Response	Associated Attachment (File Name)	
AOC	7	Upon reque SED review the followin Table 5 – N Grade 1 2+ 2 3 Total AC: Atmosh Atmospher As can be s SED review Division dis Most of Div Some of the 03.04 Atmos SED's analy (company of conditions CFR, §192.4 SED also re	red Division' rng: lumber of le Number of AC 37 4 12 5 58 noeric Corrosion een from Ta ed A-Forms covered a t vision's AC ii e personnel ospheric Cor sis found th or contractor (AOCs) and 481 (c). viewed OQ	eaks discover f Leaks by C 2013 EC 29 5 12 17 63 osion, EC: R an: able 5, there is for the AC otal of 69 G inspections I who repair rrosion covernat Division or) qualification AOCs discoverecords of	ered in 20 Cause IC 2 - 1 - 3 Rxternal C Grade 1 le were and the le were the le ered task a should votions and overed as	a list of gas I action and Gas I action and Gas I action and 2014 Number of AC 32 4 6 3 45 Corrosion, IC total of 103 d determined eaks caused I action ac	leaks cause as Quarterles Quarterles as Quar	Corrosion ed by AC i wing: 013 and 20 and 2014, not have o AC inspect t they correct		See attachment "AOC 7 - AC Meter Inspection QC Plan_CONF.pdf" for a copy of the Atmospheric Corrosion (AC) Meter Inspection and Quality Control (QC) Plan for information on our training and QC of AC inspections. PG&E requires all field personnel responsible for atmospheric corrosion inspections to be qualified (Operator Qualification 03-04 "Atmospheric Corrosion") and requires documented training on PG&E Utility Procedure, TD-4188P-01: Atmospheric Corrosion Inspection of Gas Distribution Meters. Additionally, PG&E builds QC requirements into contractual specifications by implementing an independent QC review of the contractor requirements. PG&E utilizes PG&E and / or third-party inspectors who are qualified and trained to ensure quality work is being provided by each production contract field personnel. Performing an inspection of existing pipe by personnel performing repairs requires the 03-05 Pipe Inspection OQ-covered task. Please see the attached "AOC 7 - OQ Records - Identifying Leak Causes_CONF.pdf" The Training and Qualifications department is currently working with applicable teams to identify all the work captured on A-forms and will specify what OQ-covered tasks may be required for each type of work activity noted on the A-form. This job aid is expected to be completed by December 2015. To clarify the responsibilty of inspecting the inside surface of existing metallic pipe whenever it is visible, PG&E conducted a 5-Minute Meeting training of all Maintenance and Construction personnel systemwide in August 2015 Please see the attached "AOC 7 - 5MM A-form Internal Inspection_CONF.pdf".	AOC 7 - AC Meter Inspection QC PlanCONFpdf AOC7 - OQ - Records - Identifying Leak CausesCONFpdf AOC 7- 5MM - A-form Internal Inspection_CONF.pdf	
		have the required qualifications for some OQ tasks: Tommy Victor has not been qualified for covered task OQ- 03.04 Atmospheric Corrosion, but he determined the leak cause was AC for the leaks that he repaired. Paul Fisicaro was not qualified for OQ- 03.04 before 8/19/13, and was not qualified for OQ-03.05 Pipe Inspection, before 8/19/13 even though the repaired the following Grade 1 leaks, and determined the leak										

Finding Type [Internal, NOV, AOC] Fin	nding#	Finding	Response	Associated Attachment (File Name)
AOC		Division informed SED that PG&E no longer requires supervisors to review corrosion records and forms filled out in the field by using mobile technology. PG&E's Utility Bulletin: TD-4001B-003 Publication Date: 07/17/2013 Rev: 0 Permitted Use of Electronic Record Keeping for Gas M&O Activities states: "What does this mean? For work processes using mobile technology, this bulletin allows the following deviations from existing standards and work processes: 5. Electronic validation of data entry replaces supervisor review and signature." (Emphasis added) SED reviewed several Corrosion Control records and found that even though certain electronic field validations satisfy the need to have supervisor approval, Division records showed that some data fields on the forms were left blank and the system allowed the field personnel to finalize and close the inspection forms. For example, rectifier site evaluation records showed that about one third of the questions appear on the forms do not have electronic validations for data entry, i.e., they can be left blank or out of range data can be entered. The system does not generate any warning; therefore, the rectifier maintenance can be closed with no or invalid data. Elimination of the supervisor review of inspection forms that are incorrectly filled out or left blank may result in data verification issues. Even though data validation requires certain fields being entered in the field and does not allow the field personnel record anything out of range for some fields; SED is concerned this new electronic validation process should not completely replace the supervisor review process. SED recommends that PG&E require supervisors to verify data accuracy and completeness of a sample of Corrosion Control records that will help the Division take necessary actions if some record keeping deficiencies are identified.		