

# Occurrence Causal Analysis Report

## Fugitive Dust Control Notice of Violation for Building 812 Construction

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Occurrence Number: NA-SS-SNL-4000-2020-0007

Event Date: 7/1/2020

REPORT DATE: 7/22/20



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## 1. Executive Summary

On June 30, 2020, a Notice of Violation (NOV) was issued by the City of Albuquerque (COA) Environmental Health Department, Air Quality Program. The NOV identified two violations of New Mexico Administrative Code (NMAC) 20.11.20, Fugitive Dust Control, stemming from an August 30, 2019 inspection of the construction site at Sandia/New Mexico (SNL/NM) Building 812. After the August 30 inspection, a Post-Instruction Notification (PIN) was issued to the SNL Construction Facilities Manager. The PIN was acknowledged by Department 4722 and sent to the COA on September 13, 2020 via email. The PIN "Comply by" date was September 13, 2019 was transmitted by National Nuclear Security Administration/ Sandia Field Office (NNSA/SFO) to COA offices on November 12, 2019. The PIN response was 48 business days past due for various reasons which were explored during the causal analysis.

The causal analysis identified two issues and three causes that resulted in eight corrective actions. See Table 1.

**Report Number:** NA-SS-SNL-4000-2020-0007

**Title of Report:** Fugitive Dust Control Notice of Violation for Building 812 Construction

**Categorization Criteria and Reporting Level:** DOE Order 232.2A 9(1) - Any written notification from an outside regulatory agency that a site/facility is considered to be in noncompliance with a schedule or requirement.

- Reporting Level: Informational
- Discovery date and time: 7-1-2020 7:37 a.m. (All times are in MDT)
- Categorization date and time: 7-1-2020 9:28 a.m.
- SFO contact date and time: 7-1-2020 11:49 a.m.

**Location of Event:** SNL/NM, Tech Area 1, NOV issued for compliance concerns in the Building 812 construction area.

**Responsible Manager (RM):** 4722

**Causal Analysis Information:**

- Date of fact-finding meeting: 7-14-2020
- Name and level of causal analysis lead: 635 Causal Analysts
- Type(s) of analysis performed: timeline
- Date(s) of causal analysis meeting: 7-16-2020

**Causal Analysis Team**

Role	Name and Organization #	Invited	Attended
Responsible Manager	4722 Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Causal Analysis Facilitator	635	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Individuals involved in the event	4722, Project Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Center 600 ES&H Coordinator	637 ES&H Coordinator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Division Integration Manager	637 Division Integration Manager	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Center 600 ES&H SMEs	641 Air Quality Compliance Program Lead Air Quality Compliance SME	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SFO Representative or Occurrence Program Manager	Air Quality Compliance Program Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Member of Safeguards and Security Regulatory Support Program	Manager	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Department 635 Performance Assurance Reporting Specialist	635 Reporting Specialist	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Others at the discretion of the Responsible Manager or Reporting Specialist	641 Environmental Compliance and Monitoring Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**2. Event Details**

**Problem Statement:** Overlapping construction project areas were not recognized as a compliance risk which resulted in an NOV with an associated fine.

**Event Narrative:** On June 30, 2020, the City of Albuquerque Environmental Health Department, Air Quality Program, issued a NOV identifying two violations of NMAC 20.11.20, Fugitive Dust Control. These were identified during an August 30, 2019 inspection of the construction site of Building 812. A PIN was issued to the SNL Construction Facilities Manager. The PIN was acknowledged by Department 4722 and sent to the COA on 9/13/20 via email. The PIN “*Comply by*” date was 9/13/19. The PIN response was transmitted by NNSA/SFO to COA on November 21, 2020.

The NOV has an associated financial penalty and Settlement Agreement/Stipulated Final Order to be signed and returned to the Air Quality Program or otherwise addressed by July 19, 2020.

**Operating Conditions of Facility at Time of Event:** At the time of the August 30, 2019 pre-disturbance inspection by the COA, utility construction activities were ongoing at the Building 812 site.

**Immediate Actions:** Departments 641 and 4722 collaborated on the response, signature, and payment of the NOV fine.

**Extent of Condition:** It was communicated that there may be a lack of understanding of roles and responsibilities in responding to compliance issues for other environmental compliance programs, not just the AQC Program. In light of this, it is suggested that 641 Management shall consider defining roles and responsibilities (reference LT8) in responding to compliance issues for all other environmental programs within Department 641.

### **3. Causal Analysis Results**

The causal analysis identified two issues and three causes which resulted in eight corrective actions. Refer to Table 1 for details.

#### **Evidentiary Support:**

- Photos of 812 construction site
- NEPA NM19-0148
- Notice of Violation from the COA for Building 812
- Map of Project Overlap
- PIN Response for Building 812
- Issued FDCP for Building 812
- Final TA-IV Escarpment PIN
- Final 3-27-14 NOV and Signed Settlement Agreement
- 2013-10-09 DOE-signed PIN
- Timeline PIN 812 Building

### **4. Corrective Action Plan**

Refer to Table 1 for details.

**Table 1. Corrective Action Plan**

**Problem Statement:** Overlapping construction project areas were not recognized as a compliance risk which resulted in an NOV with an associated fine.

Fact(s)	Issue	(C#) Cause and Cause Code	(CM#) Compensatory Measure Action	CM Action Owner & Due Date	(LT#) Long Term Corrective Action	LT Action Owner & Due Date
<p>F1. A utilities project, NEPA checklist NM19-0148, overlapped with the future construction area for Building 812.</p> <p>F2. According to 4722, this utilities work was planned, funded and executed independent of the proposed future Building 812 construction project.</p> <p>F3. No Fugitive Dust Control Permit (FDCP) was required for the utilities project, as the disturbance area was less than 0.75 acres.</p> <p>F4. The COA Inspector arrived for the required pre-disturbance site inspection of the future Building 812 construction site on 8/30/2019.</p> <p>F5. During the pre-disturbance site inspection, the COA Inspector observed disturbance of the utilities project occurring within the construction area for Building 812.</p> <p>F6. Despite the two projects being planned, funded, and executed independent of one another, the perception of the COA Inspector was that disturbance had begun without an approved FDCP.</p> <p>F7. A PIN was issued on 9/6/20.</p> <p>F8. The utilities project NEPA checklist was submitted on 2/12/2019.</p> <p>F9. Funding was received and project execution for Building 812 began in the March timeframe.</p> <p>F10. Department 4722 does not have a mechanism or process to identify construction projects that will overlap.</p> <p>F11. Department 4722 stated that they rely on the NEPA process to identify overlapping projects and identify permitting requirements.</p> <p>F12. Per the NEPA Program Lead, the NEPA Program does not evaluate projects for potential overlap. The NEPA process relies on the author of the NEPA checklist to specify if overlap is a possibility.</p> <p>F13. Department 4722 stated that Department 4800, Strategic Planning, may be able to identify construction project areas that overlap.</p> <p>F14. The Air Quality Compliance (AQC) Program does not have a mechanism or process to identify construction projects that may overlap.</p> <p>F15. Department 4722 and the AQC Program attest that overlapping projects have not been an issue in the past.</p>	<p>I1. During the COA pre-disturbance inspection for Bldg. 812, the COA Inspector observed disturbance at the construction site.</p>	<p>C1. There is no process for Department 4722 or the AQC Program to identify construction projects that may overlap.</p>	<p>CM1. Dept. 4722 stated the following in the PIN response: <i>“Internal processes are being adjusted to ensure better coordination when planning for multiple, distinct projects in the future.”</i></p>	<p>4722 Manager Complete: 8/28/20</p> <p>4722 Manager shall communicate the definition of a common area development and overlapping projects. Provide lessons learned associated with the NOV for Bldg. 812.</p>	<p>LT1. The AQC Program to update the relevant AOP to include a step of the AQC SME inviting the 4722 Project Manager (PM) and Construction Manager (CM) to meet at the inspection site to ensure no surface disturbances are occurring, prior to the COA pre-disturbance inspection.</p> <p>LT2. AQC Program to update the relevant AOP to include the step of inviting the PM/CM to the pre-disturbance site inspection with the COA Inspector. The final decision to attend or not is at the discretion of the PM/CM.</p> <p>LT3. Department 4722 will ensure coordination of Sandia’s construction planning process and submissions for permitting by inviting an AQC SME to the attend the monthly PM/CM synergy meeting.</p> <p>LT4. Dept. 4722 request that “Potential Project Overlap” be added as a standing agenda item to the PPET meetings.</p> <p>LT5. The AQC Program to develop a proposal about the benefits of having a fugitive dust SME in Department 4700 or 4800 to address overarching planning questions. Collaborate with personnel with Department 4700 or 4800 as needed. Proposal to be presented to Department 641 managers for consideration and feasibility determination.</p>	<p>641 Manager 8/30/20</p> <p>641 Manager 8/30/20</p> <p>4722 Manager 8/28/20</p> <p>4722 Manager 10/30/20</p> <p>641 Manager 10/31/20</p>
<p>F16. There is evidence that it is unclear to whom the COA should address fugitive dust compliance notifications. The September 6, 2019 PIN went directly to an AQC SME and then subsequently was readdressed to SFO. On a separate occasion (April 10, 2019), a PIN was issued directly to the “responsible person” (Summit Construction).</p> <p>F17. There is evidence that the process of responding to Fugitive Dust compliance notifications is not clear. Summit construction responded directly to the COA for the PIN received on 4/10/19. Department 4722 attempted to respond directly to the COA for the PIN received on 9/6/19 however, was instructed that it needs to go through SFO for submittal to the COA.</p> <p>F18. SFO requested that the COA address the 9/6/19 PIN to SFO, not the AQC SME. This caused a delay of 1-business day.</p> <p>F19. On 9/23/2019, SFO requested that 4722 re-address the response letter to William Wechsler (SFO) instead of directly to the COA. The response letter with the updated address was not provided until 11/6/19. This resulted in a delay of 32-</p>	<p>I2. When Fugitive Dust compliance issues arise, the roles and responsibilities of the stakeholders are unclear.</p>	<p>C2. The COA is unclear what entity to address compliance issues to.</p> <p>C3. There is no documentation for who is responsible for responding to compliance notifications, who should review the response, or who should send the</p>			<p>LT6. The AQC Program to verify with SFO to who fugitive dust compliance notifications should be addressed and communicate the determination to the COA.</p> <p>LT7. The AQC Program to schedule a “Meet and Greet” (virtual or in-person) with the COA and the 4722 Manager to discuss the following:</p> <ul style="list-style-type: none"> <li>COA compliance position about independent projects that may overlap</li> <li>4722 Manager to provide overview of types of SNL/NM construction processes</li> </ul> <p>LT8. The AQC Program to develop a roles and responsibilities document. The document shall include, but not be limited to, the following:</p>	<p>641 Manager 8/31/20</p> <p>641 Manager 11/30/20</p> <p>641 Manager 10/31/20</p>

Fact(s)	Issue	(C#) Cause and Cause Code	(CM#) Compensatory Measure Action	CM Action Owner & Due Date	(LT#) Long Term Corrective Action	LT Action Owner & Due Date
<p>business days. The cause of this delay was attributed to upper management discussions.</p> <p>F20. The re-addressed letter was provided to SFO on 11/6/19. SFO sent the COA the response on 11/21/19. This resulted in a 10-business day delay. The cause of this delay is unknown but may have been caused by the SFO signature and review internal process.</p> <p>F21. The “Comply By” date (i.e., response date) for the NOV was 9/13/19. The response was provided to the COA on 11/21/19. The PIN response was 48 business days late. The regulator may have perceived the significant delay as a lack of responsiveness by Sandia.</p> <p>F22. According to an agreement between SFO and SNL management, compliance and enforcement documents should go through SFO.</p> <p>F23. According to NMAC regulation, the “Responsible Person” is responsible for Fugitive Dust compliance.</p>		response to the COA.			<ul style="list-style-type: none"><li>Who is responsible for responding to PINs and NOVs?</li><li>Who will review the response before finalization (e.g., SFO, managers, legal, AQC, etc.)?</li><li>To whom should the response be addressed?</li><li>Who should send the response?</li><li>Who is responsible for fines?</li><li>What person or organization is responsible for ensuring the entire compliance response process is completed?</li></ul> <p>The AQC Program will collaborate with stakeholders (e.g., SFO, 4722, Legal, management) as needed. Communicate the final product to all stakeholders.</p>	

## **5. Occurrence Report Approval**

*Signature(s) confirm approval of the completed occurrence report and the corrective action*

*plan.* Responsible Manager: 4722 Manager

Signature: James R. Doyle Date: 7/29/20

Concurrence from: 641 Manager

Signature: Andrew Gough Date: 7/29/2020

Andrew Gough for Paula Schuh