Tier II Reporting Guidance for Whole Grains and Grain Dust

What are the Tier II reporting requirements?
The Environmental Protection Agency’s (EPA) Tier II reporting is required for all facility types if, at any time during the last calendar year, they had any material requiring a Safety Data Sheet (SDS) on-site in quantities over:

- 10,000 pounds, or
- if it is an Extremely Hazardous Substance (EHS) such as aluminum phosphide or ammonia, 500 pounds or the threshold planning quantity (TPQ), whichever is lower.

Some of the commonly reported materials at grain elevators and feed mills are fuels, fertilizer and pesticides. Facilities are required to report this information using their state’s reporting system by March 1 of each year. The Tier II reports assist Local Emergency Planning Committees (LEPCs) in developing and managing local emergency response plans.

Significantly, section 311(e) of the Emergency Planning and Community Right-to-Know Act (EPCRA) excludes from the reporting requirement any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration (FDA). This exemption applies to both human and animal food (feed) products regulated by FDA.

Do I need to report grain and grain dust?
In 2012, the Occupational Safety and Health Administration (OSHA) changed its Hazard Communication standard to make it consistent with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). OSHA also took that opportunity to add combustible dust as a hazard category. This addition impacted the classification of grain and grain dust and is related to the EPA’s Tier II reporting. Grain and grain dust may require safety data sheets as discussed in Section 4 of the NGFA’s Guidance: Hazard Communication Program at Grain Handling, Feed, Ingredient and Processing Facilities.

As previously stated, the EPA’s Tier II reporting requirements still exempt food and food additives regulated by the FDA, which typically includes grain and grain dust. However, if the grain or grain dust was not sold or otherwise used as food (i.e. it is distributed for an industrial use or is off-specification, rotten, contaminated, etc.), that quantity of grain or grain dust may need to be counted towards the 10,000-pound reporting threshold.

The requirements also exempt non-carcinogenic materials in mixtures present at a concentration less than 1%. Therefore, grain dust incorporated in grain would not have to be included unless there is evidence that the grain has more than 1% grain dust. Grain dust stored separately from grain, such as in a dust tank or baghouse, would need to be counted towards the 10,000-pound threshold.

An article posted by EPA described how to report combustible dust in a Tier II: “Facility owners and operators can use their best professional judgment or engineering calculations to determine the amount of dust present at their facility when making threshold determinations and when calculating amounts to include on the Tier II chemical inventory form (e.g., maximum amount and average amount on site).”

Under the Tier II regulations, any material with a SDS needs to be reported if it was on-site above the applicable thresholds in the previous year. OSHA could consider whole grain a hazardous chemical requiring an SDS, so facilities should consider including it on a Tier II report.
To assist in determining whether to report grain or grain dust in a Tier II report, the NGFA has prepared the following flowcharts:

**Flowchart for Tier II Reporting of Grain**

Was all the grain used as food or feed?  
Yes  
No  
At any time, last year, did the facility store over 10,000-pounds of grain that was not used as food or feed?  
Yes  
You are required to report the grain for the previous year.  
No  
You are not required to report the grain for the previous year.

**Flowchart for Tier II Reporting of Grain Dust**

Was the grain dust used as food or feed?  
Yes  
No  
At any time, last year, did the facility store over 10,000-pounds of grain dust that was not used as food or feed?  
Yes  
You are required to report the grain dust for the previous year.  
No  
You are not required to report the grain dust for the previous year.
Notes:

1. The regulation has higher thresholds for reporting gasoline and diesel fuel stored in underground tanks at retail gas stations.

2. The Federal Tier II regulation [40 Code of Federal Regulations (CFR) 370.13(a)] states “Each of the following substances are excluded under EPCRA section 311(e): (a) Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration.”

3. These flowcharts have been developed for the federal Environmental Protection Agency requirements. State, county and other local requirements may differ. Guidance from the State of South Dakota and North Carolina’s Guilford County implies you should assume one-tenth of one percent of your grain contains combustible dusts. Therefore, if you had over 178,500 bushels of corn, you would have had roughly 10,000 pounds of combustible dust (178,500 bushels corn * 56 pounds per bushel * 0.1% = ~10,000 pounds). However, this calculation conflicts with the Tier II regulation [40 CFR 370.14], which exempts mixtures when a hazardous chemical is present in a mixture at a concentration less than or equal to 1 percent. However, South Dakota and Guilford County’s guidance is contrary to the EPA’s clarification on combustible dust, as previously mentioned, (Combustible-food-dust-and-EPCRA-311-312-reporting) which specifies that if a facility “accumulates” 10,000 pounds of dust, this may imply that the presence of dust entrained in grain is not counted towards the threshold.

4. You are not required to report materials that are foods or food additives regulated by the FDA. However, this exemption does not apply if you sell the grain or grain dust for non-food-related use (i.e., a soil amendment) or dispose of the grain or grain dust.

5. If the dust is present in a mixture (i.e., dust entrained in grain), you are not required to include the quantity of dust that is present in less than or equal to 1% concentration [40 CFR 370.14(c)].

Disclaimer: The National Grain and Feed Association make no warranties, expressed or implied, concerning the accuracy, application or use of the information contained in this publication. Further, nothing contained herein is intended as legal notice. Competent legal counsel should be consulted on legal issues. Grain handling facilities should contact experienced safety and health legal counsel or a third-party expert if they have questions about the proper way to implement the items addressed in the document.