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Via Fax - 1-404-347-3050

August 22, 1994

Mr. David McNeal  
United States Environmental Protection Agency  
Region IV

RE: NSPS (Subpart X) Applicability to GTSP Distribution Facilities  
Background Information Document (BID) Pages

Dear Mr. McNeal:

Attached are copies of pages from the BID (EPA-450/2-74-019a) that are referenced in our letter to the Environmental Protection Commission of Hillsborough County dated July 20, 1994, faxed to you last week.

If you have any questions or need additional information, please do not hesitate to call me at 813-834-3922, ext. 3616.

*Jeffrey M. Stewart*

Jeffrey M. Stewart  
Environmental Programs Coordinator

cc: w/o attachment  
J. N. Allen, Jr.  
L. Sellers, Holland & Knight (Fax)  
G. G. Williams

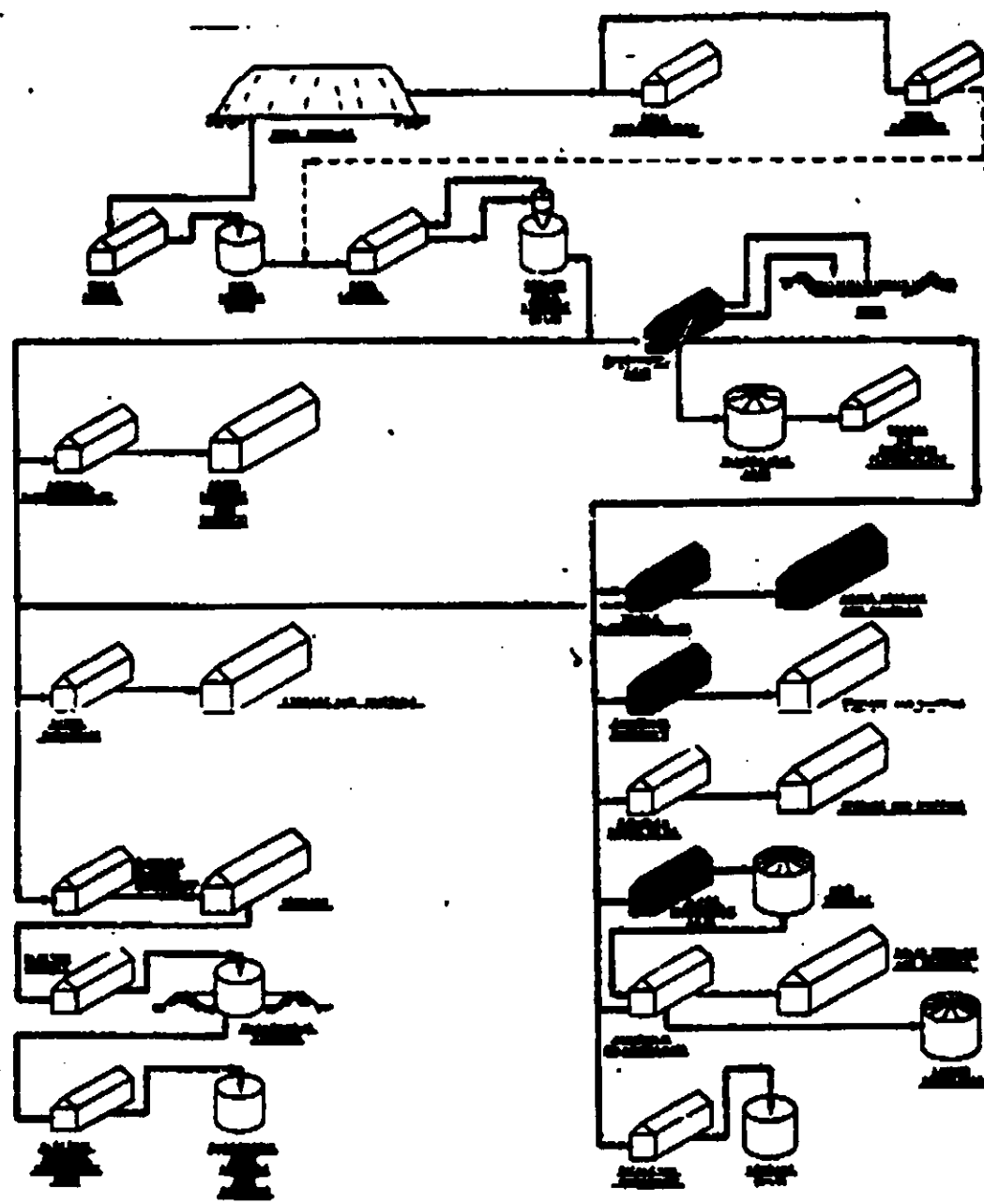


FIGURE 1  
 PHOSPHATE ROCK PROCESSING PLANT

### GRANULAR TRIPLE SUPERPHOSPHATE STORAGE

#### SUMMARY OF PROPOSED STANDARDS

Standards of performance are being proposed for new granular triple superphosphate (GTSP) storage facilities. The proposed standard would limit emissions of fluorides from the storage building, which is the affected facility. Major sources include but are not limited to the product pile, transfer conveyors and elevators, screens, and mills. The standards apply at the point(s) where emissions are discharged from the air pollution control system or from the affected facility if no air pollution control system is utilized.

The proposed standards would limit emissions to the atmosphere as follows:

#### Total Fluorides

No more than 0.25 gram total fluoride per hour per metric ton of  $P_2O_5$  in storage ( $5 \times 10^{-4}$  pound per hour per ton).

#### Visible Emissions

Visible emissions shall be less than 20 percent opacity.

#### DESCRIPTION OF PROCESS

After manufacture, GTSP is moved to a storage building where it remains until the reaction is completed or the product is "cured." Figure 17 illustrates the activities in the storage building. The GTSP is distributed

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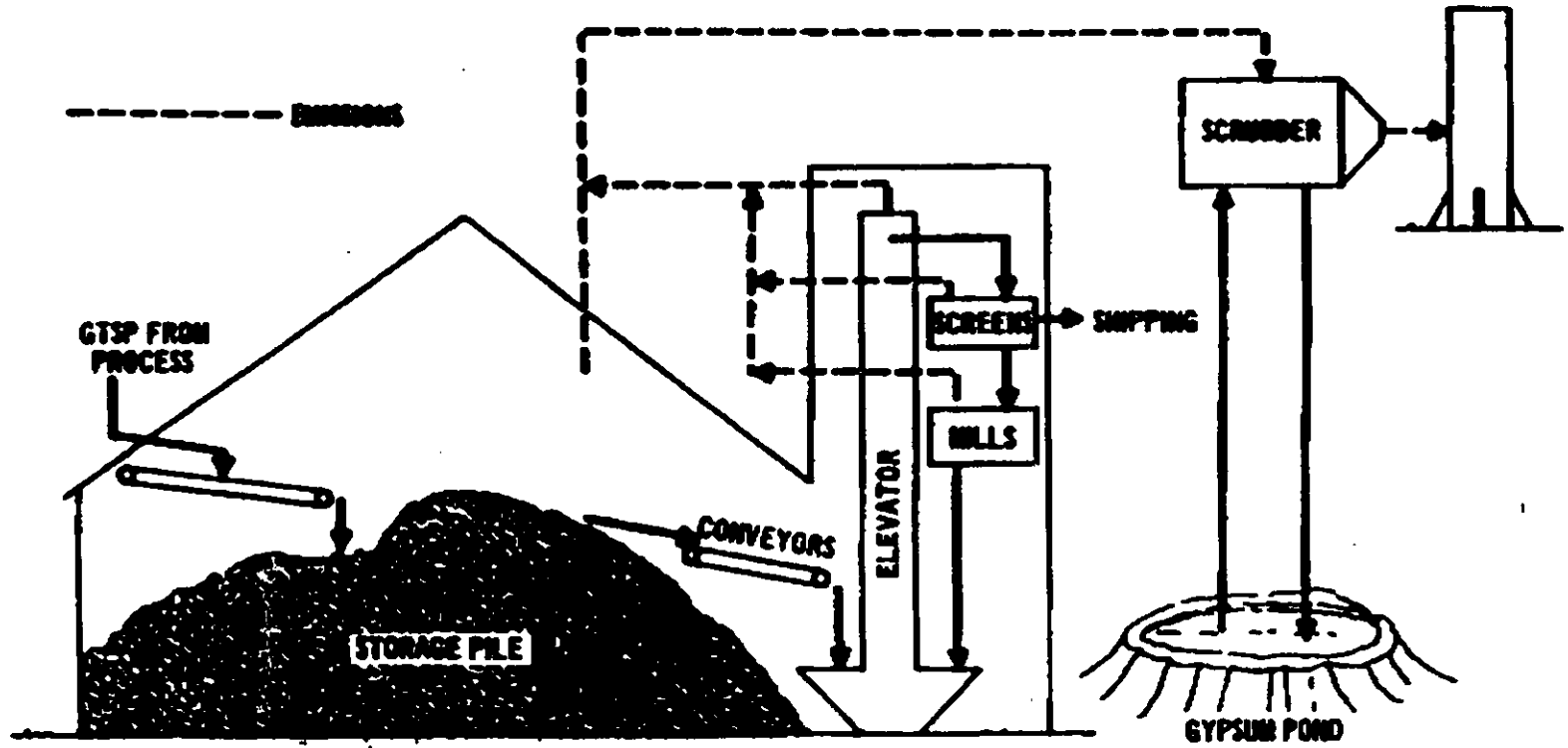


Figure 17. GRANULAR TRIPLE SUPERPHOSPHATE STORAGE

to a predetermined area in the building by conveyors. After 3 to 5 days, during which fluorides evolve from the storage pile, the product is considered cured and ready for shipping. Front-end loaders move the GTSP to elevators or hoppers where it is conveyed to screens for size separation. Oversize material is rejected, pulverized, and returned to the screen. Undersize material is returned to the GTSP production plant. Material within specification is shipped as product.

#### EMISSIONS AND METHODS OF CONTROL

Emissions from GTSP storage are limited to fluorides and particulates. The fluorides are emitted both in the gaseous form and as a constituent of the particulate emissions. Emissions of gaseous and solid particulate fluorides are greater during periods when the GTSP product is being rearranged rather than when it is in piles where it has lain undisturbed.

Some poorly controlled GTSP storage facilities can release as much as  $15 \times 10^{-4}$  pound of fluoride per hour per ton of  $P_2O_5$  in storage. Such a storage facility with 1,500 tons of  $P_2O_5$  could emit 55 pounds of fluoride each day of storage. Well-controlled GTSP storage facilities can restrict fluoride emissions to less than  $5 \times 10^{-4}$  pound fluoride per hour per ton of  $P_2O_5$  stored (see Figure 18). A well-controlled 1,500-ton  $P_2O_5$  storage facility achieving  $5 \times 10^{-4}$  pound of fluoride per hour per ton of  $P_2O_5$  stored would emit about 18 pounds of fluoride each day of storage.