

Section 10

Written Description of the Routine Operations of the Facility

A written description of the routine operations of the facility. Include a description of how each piece of equipment will be operated, how controls will be used, and the fate of both the products and waste generated. For modifications and/or revisions, explain how the changes will affect the existing process. In a separate paragraph describe the major process bottlenecks that limit production. The purpose of this description is to provide sufficient information about plant operations for the permit writer to determine appropriate emission sources.

The Roper Construction, Inc. Alto Concrete Batch Plant will include an aggregate feed hopper (Unit 2), aggregate feed hopper conveyor (Unit 3), 4-bin aggregate bin (Unit 4), aggregate weigh batcher with conveyor (Units 5 and 6), cement/fly ash split silo (Units 9 and 10) with screw conveyors and dust collectors (Units 9b and 10b), cement/fly ash batcher (Unit 8) and concrete truck loading area (Unit 7) with central dust control system (Unit 7b) to control fugitive dust from the truck loading area and cement/fly ash batcher, and aggregate and sand storage piles (Unit 11). The facility will be identified as Alto CBP.

A front-end loader dumps aggregate and sand into the aggregate feed hopper. The aggregate feed hopper conveyor transfers the material to the 4-bin aggregate bin. The aggregate and sand in the 4-bin aggregate bin is measured by the aggregate weigh batcher and transferred to the batcher conveyor. Fugitive dust created at transfer points, aggregate feed hopper conveyor (Unit 3), 4-bin aggregate bin (Unit 4), aggregate weigh batcher with conveyor (Units 5 and 6), will be controlled to minimize visible emissions by either adding water with water sprays at the aggregate feed hopper conveyor (Unit 3) or adding additional water at the aggregate storage piles. From the batcher conveyor, the aggregate and sand is transferred to the truck loading area where it is loaded into the concrete trucks. Fugitive dust created while loading concrete trucks will be controlled by the central dust control system. Dust collected in the dust control system will be recycled back to the cement silo.

Measured amounts of fly ash and cement from the cement/fly ash split silo are transferred by screw conveyors or gravity feed to the cement/fly ash batcher. From the cement/fly ash batcher, the measured material is loaded into the concrete trucks at the same time as the aggregate, sand, and water. Fugitive dust created during transfer to the cement/fly ash batcher is controlled by the central dust control system. During loading of the cement/fly ash split silo, fugitive dust is controlled by a dust collector for each compartment of the split silo.

Haul roads on site will be paved and maintained to reduce particulate emissions from truck traffic.

A process flow diagram is presented as Figure 4-1 in Section 4.