February 13, 1998

M E M O R A N D U M

TO: Orville D. Green, Assistant Administrator
Air and Hazardous Waste

FROM: Susan J. Richards, Chief
Air Quality Permitting Bureau

SUBJECT: P-970132, General Mills Operations, Inc., Pocatello
(Grain Conditioning Facility, Permit to Construct #005-00013)

PROJECT DESCRIPTION

General Mills Operations, Inc. (General Mills) plans to construct a new grain conditioning facility at their plant in Pocatello, Idaho. In addition, reclaim equipment will be installed to recover grain products. This facility will utilize wheat stored in the existing grain elevator.

DISCUSSION

On December 31, 1997, the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) received a Permit to Construct (PTC) application from General Mills Operations, Inc. (General Mills) for the construction and operation of the grain processing facility in Pocatello, Idaho. The project includes the installation of grain conditioning and reclaim equipment, as well particulate emission control equipment.

FEES

This facility is not a major facility as defined in IDAPA 16.01.01.008.14. Therefore, registration and registration fees, in accordance with IDAPA 16.01.01.526, are not applicable.

RECOMMENDATION

Based on review of application materials and state and federal rules and regulations, staff recommend that General Mills be issued a PTC for this new equipment. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD PTC requirements.

SJR/GEF/ms ...\FINK\GENMILLS\970132.MM

cc: P. Rayne/AFS
R. Wilkosz/TSB
Pocatello RO
Source File (005-00013)
COF

February 13, 1998

M E M O R A N D U M

TO: Susan J. Richards, Chief
Air Quality Permitting Bureau

FROM: George E. Fink, P.E., Air Quality Engineer GEF
New Source Review Section

SUBJECT: ***Permit to Construct Technical Analysis***
P-970132, General Mills Operations Inc., Pocatello
(Grain Conditioning Facility)

PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01.200 (*Rules for the Control of Air Pollution in Idaho*) for issuing Permits to Construct (PTC).

PROJECT DESCRIPTION

The General Mills Operations, Inc. (General Mills) has submitted a PTC application to construct and operate a new grain conditioning facility which will process wheat stored in the existing grain elevator.

SUMMARY OF EVENTS

On December 31, 1997, the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ), received a PTC application from General Mills to construct a grain conditioning facility at their Pocatello site. Grain will be transferred from the existing grain elevator.

DISCUSSION

1. Facility Process Description

The proposed grain conditioning facility will process (clean) wheat stored in the adjacent grain elevator. The equipment to be installed includes: aspirators; screens; storage bins; elevators; conveying systems; and receiving, storage, and loadout equipment. A ventilation system with filters will be used to control particulate emissions from the grain cleaning process equipment.

Also, a reclaim leg will be installed to recover oversized materials from a new pre-cleaner. Emissions from this equipment will be controlled by a new ventilation system and baghouse.

2. Equipment Information

Listed below are major process equipment and emission sources for the grain conditioning facility and reclaim equipment.

2.1	Location:	Grain Conditioning Facility
	Maximum Design Capacity:	1,000 bushels/hour
	Equipment:	M208 Separator Aspirator Quad Stacked Indent Cylinders Destoner Horizontal Scourer Buhler Tempering System Universal Legs L-2, L-3 & L-4
	Fuel Type:	N/A
	Maximum Heat Input:	N/A
	Control Device:	Baghouse filter LMC West Model 144 FSD-12 99.97% control efficiency
	Stack Height:	8.0 ft. (110 ft. above grade)
	Stack Diameter:	32 inches
	Exit Volume:	24,000 acfm
	Exit Gas Temp:	Ambient
2.2	Location:	Reclaim Facility
	Maximum Design Capacity:	1,800 bushels/yr
	Equipment:	S206 Carter Day Aspirator Reclaim Leg Reclaim Bin Universal Leg 0
	Fuel Type:	N/A
	Maximum Heat Input:	N/A
	Control Device:	Baghouse filter LMC West Model 144 FSD-12 99.97% control efficiency
	Stack Height:	8.0 ft. (110 ft. above grade)
	Stack Diameter:	32 inches
	Exit Volume:	28,500 acfm
	Exit Gas Temp:	Ambient

As part of this proposed project, General Mills plans to install a new particulate emission control system for the reclaim process. This ventilation/emission control system will also be used to control particulate emissions from selected grain elevator equipment. No other modifications to the grain elevator are planned at this time. No combustion equipment has been proposed to be included in the process at this time.

3. Area Classification

General Mill's grain conditioning facilities will be located in Pocatello, Idaho. Pocatello is located in Bannock County which is part of Air Quality Control Region 61, which is designated as a non-attainment for PM-10.

4. Facility Classification

This facility is not a designated facility as defined in IDAPA 16.01.01.006.25. This facility is not a major facility as defined in IDAPA 16.01.01.006.54 and as defined in IDAPA 16.01.01.008.14. The grain conditioning facility is not subject to New Source Performance Standards (NSPS). However, the adjacent grain elevator which is currently grandfathered, if modified, is potentially subject to the standards contained in 40 CFR 60.300 (Subpart DD-Standards of Performance for Grain Elevators). The facility's Standard Industrial Classification (SIC) Codes are 5153 for the grain elevator and 2041 for the grain conditioning facility.

The AIRS Facility Subsystem source/pollutant classification for this facility is A2 because actual emissions are less than 100 tons per year (T/yr), but potential uncontrolled emissions could exceed 100 T/yr.

5. Emission Estimates

Air emissions estimates (PTE) from the new grain conditioning were calculated based on process data provided by General Mills and AP-42 emission factors. PM-10 (particulate matter) is the primary air pollutant generated by the processing of grains. General Mills has submitted maximum operating rates of 1,000 bushels per hour for the grain conditioning process and 1,800 bushels per hour for the aspirator on the reclaim process.

All point sources of emissions in the grain conditioning process sources will be controlled using a central ventilation/baghouse system. These particulate filters has a vendor guarantee of 99.97% control efficiency. Further, vendor calculations are based on proposed maximum grain loading of 7 grains per cfm and flow rates of 28,500 acfm and 24,000 acfm for the reclaim/grain elevator (System 3) and grain conditioning system (System 1), respectively. Based on these assumptions, the emissions from the baghouse filter stacks are 0.513 pounds per hour and 0.432 pounds per hour for the reclaim and grain conditioning systems, respectively.

However, in order to allow more operating flexibility, the permit allowable emission calculations were based on operating rates of 1,200 bushels per hour and 2,000 bushels per hour for the grain conditioning and reclaim processes, respectively. In addition, the filter control efficiency for each ventilation/emission control system was set at 99.9%. The calculated emission rates are given in Table 1.

There are also fugitive emissions associated with the loading of reclaim materials and conditioned grain into trucks and rail cars. The reclaim truck loadout and railcar loadout systems are new. These emissions are also summarized in Table 1.

The annual emission calculations are based on facility operations of 8,760 hours per year. All emission calculations are located in Appendix A of this memo. The uncontrolled potential to emit from this facility is more than 100 T/yr.

Table 1
Permit Allowable Emission Summary: Particulates (PM-10)
(Controlled - 8,760 hours/year)

No.	SOURCE DESCRIPTION	PM-10 (lb/hr	PM-10 (T/yr)
Reclaim System			
EP-1	System 3 - Grain Elevator/Reclaim System Filter Stack (Reclaim process sources: Carter Day Aspirator, Reclaim Leg/Bin)	1.710	7.470
Grain Conditioning System			
EP-2	System 1 - Grain Conditioning System Ventilation System Filter Stack (Grain Conditioning process sources: Universal Leg L1/Surge Bin, Separator/Aspirator M-208, Bin Hopper, Quad Stacked Indent Cylinders, Bin Hopper, Destoner, Universal Leg L2/Horizontal Scourer, Universal Leg L3/Buhler Tempering, Bin Loading (2-3,500 bu. each), Universal Leg L4/Surge Bin/Bagger)	1.440	6.290
F-1	Truck Loadout (grain)	0.108	0.470
F-2	Railcar Loadout (grain)	0.108	0.470
F-3	Dust Bin	0.025	0.110
F-4	Truck Loadout (dust)	0.015	0.070
	Totals	3.410	14.880

6. Modeling

Conservative modeling of PM-10 emissions from point sources was conducted using EPA-approved SCREEN3 computer-run model. The point sources modeled include the following: reclaim/elevator process ventilation system filter stack (EP-1) and grain conditioning process ventilation system filter stack (EP-2). The other sources are assumed to be negligible sources. The maximum PM-10 impacted from all point sources, using the proposed permit emission limits, are summarized below.

Table 2
Modeled Ambient Concentrations Summary: Particulates (PM-10)

Emission Point No.	Description	24-hour Ambient Conc. ($\mu g/m^3$)	Annual Ambient Conc. ($\mu g/m^3$)
EP-1	System 3 - Reclaim/Elevator Ventilation System Filter Stack	2.97	0.594
EP-2	System 1 - Grain Conditioning Ventilation System Filter Stack	2.69	0.538

Both of these values are below the non-attainment significant concentrations of 5.0 μg/m3 24-hour and 1.0 μg/m3 annual.

7. Regulatory Review

7.1 PTC Applicability Review

A PTC is required because General Mills proposes to construct a stationary source in Pocatello, Idaho. This new facility, before state enforceable permit limits, has an uncontrolled PTE greater than 100 T/yr for PM. The facility is located in a non-attainment area and has the potential to exceed the non-attainment significant concentrations levels.

7.2 Federal Regulatory Review

A review of 40 CFR 60.300 (Subpart DD-Standards of Performance for Grain Elevators) has been conducted and it has been determined that the grain conditioning and reclaim equipment at this facility are not subject to these requirements.

7.3 Permitting Requirements Review

7.3.1 Emission Limits

The only pollutant required to be regulated at this new plant has been determined to be PM-10. The PTC will limit point source PM-10 emissions to a total of 75.6 pounds per day and 13.8 T/yr. Individual point sources (EP-1 and EP-2) have the emission limits stated in Table 1.

7.3.2 Operating Requirements

The facility PM-10 PTE is based primarily on the filter grain loading factors provided by the vendor which are not a function of throughput. However, since the design of the filters and subsequent grain loading guarantee

includes the air and product flow rates, the throughput is inherently limited by this design. In the permit, the control efficiency is set at a minimum of 99.9% and the operating rates are set at 1,200 bushels per hour and 2,000 bushels per hour for the grain conditioning and reclaim, respectively.

This facility will be involved in the receiving, loadout, handling, and processing of grains and is expected to have some fugitive emissions. Therefore, the facility will be required, when practical and reasonable, to control these fugitives in accordance with Idaho Rules. The facility will also be limited in visible emissions, emanating from activities from this facility, not leaving the property boundary for more than three (3) minutes in any 60-minute period.

An Operation and Maintenance Manual will be required for the air pollution control equipment (filters) which describes the methods and procedures to be followed for proper operations (i.e., pressure drop, inspection frequencies, etc.).

In summary, this facility is subject to the following new source review requirements:

IDAPA 16.01.01.201	Permit to Construct Required;
IDAPA 16.01.01.202	Application Procedures;
IDAPA 16.01.01.203	Permit Requirements for New and Modified Stationary Sources;
IDAPA 16.01.01.209	Procedures for Issuing Permits;
IDAPA 16.01.01.211	Conditions for Permits;
IDAPA 16.01.01.212	Obligation to Comply;
IDAPA 16.01.01.575	Air Quality Standards and Area Classification;
IDAPA 16.01.01.625	Visible Emissions;
IDAPA 16.01.01.650	Rules for the Control of Fugitive dust; and
40 CFR 60 Subpart DD	Standards of Performance for Grain Elevators.

8. Compliance Assurance Bureau Review

A draft copy of the PTC was presented to the Compliance Assurance Bureau for review and comment before final PTC issuance.

9. AIRS Information

The emission units identified in this document are added to the AIRS database as shown in Appendix C of this document.

FEES

This facility is not a major facility as defined in IDAPA 16.01.01.008.14. Therefore, registration and registration fees, in accordance with IDAPA 16.01.01.526, are not applicable.

RECOMMENDATIONS

Based on review of application material and state and federal rules and regulations, staff recommend that General Mills be issued a PTC for the new grain conditioning and reclaim equipment. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD Permit to Construct requirements.

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cc: P. Rayne/AFS
R. Wilkosz/TSB
Pocatello Regional Office
Source File (005-00013)
COF

APPENDIX A

EMISSION ESTIMATES

General Mills Operations, Inc. -- Pocatello Cleaning/Tempering Faclity

File: GENERAL1.wk1

02-10-98

Estimated Maximum Actual Emissions

Description	Emiss. Point No.	Feed Rate (ton/hr)	Feed Rate (ton/yr)	Emission Factor (lb/ton)	Uncntrld. PTE PM-10 (lb/hr)	Uncntrld. PTE PM-10 (ton/yr)	Filter Control Effcy. 99.97%	Calc. Controlled PTE PM-10 (lb/hr)	Calc. Controlled PTE PM-10 (ton/yr)	Controlled Emissions PM-10 (lb/hr)	Controlled Emissions PM-10 (ton/yr)	Dispersion Factor (ug/m3 per lb/hr)	Est. Ambient Concent. 24-hr Max. (ug/m3)	Est. Ambient Concent. Annual Max. (ug/m3)	AAQS - Non-Attain. PM-10 24-hr Std (ug/m3)	AAQS - Non-Attain. PM-10 Annual Std (ug/m3)
Carter Day Aspirator AK-6	EP-1a	54.00	473,040	0.08	4.32	18.92	99.97%	0.00130	0.00568	N/A[a]			0.00E+00	0.00E+00	5	1
Reclaim Leg/Bin	EP-1b	15.00	131,400	0.08	1.20	5.26	99.97%	0.00036	0.00158	N/A[a]			0.00E+00	0.00E+00	5	1
Reclaim/Elevator Dust Filter	EP-1	0.00	0	0.08	0.00	0.00	99.97%	0.00000	0.00000	0.513	2.24	4.34	8.91E-01	1.78E-01	5	1
					5.52	24.18	T/yr PTE	0.00	0.01	T/yr Actual						
Universal Leg L-1/Surge Bin	EP-2a	30.00	262,800	0.08	2.40	10.51	99.97%	0.00072	0.00315	N/A[a]			0.00E+00	0.00E+00	5	1
Separator/Aspirator M-208	EP-2b	30.00	262,800	0.08	2.40	10.51	99.97%	0.00072	0.00315	N/A[a]			0.00E+00	0.00E+00	5	1
Bin hopper	EP-2c	30.00	262,800	0.005	0.15	0.66	99.97%	0.00004	0.00020	N/A[a]			0.00E+00	0.00E+00	5	1
Quad Stacked Indent Cylinders	EP-2d	30.00	262,800	0.08	2.40	10.51	99.97%	0.00072	0.00315	N/A[a]			0.00E+00	0.00E+00	5	1
Bin hopper	EP-2e	30.00	262,800	0.005	0.15	0.66	99.97%	0.00004	0.00020	N/A[a]			0.00E+00	0.00E+00	5	1
Destoner	EP-2f	30.00	262,800	0.08	2.40	10.51	99.97%	0.00072	0.00315	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-2/Horizontal Scourer	EP-2g	30.00	262,800	0.08	2.40	10.51	99.97%	0.00072	0.00315	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-3/Buhler Tempering	EP-2h	30.00	262,800	0.08	2.40	10.51	99.97%	0.00072	0.00315	N/A[a]			0.00E+00	0.00E+00	5	1
Bin Loading (2-3,500 bu each)	EP-2i	30.00	262,800	0.005	0.15	0.66	99.97%	0.00004	0.00020	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-4/Surge Bin/Bagger	EP-2j	30.00	262,800	0.08	2.40	10.51	99.97%	0.00072	0.00315	N/A[a]			0.00E+00	0.00E+00	5	1
Grain Conditioning Dust Filter	EP-2	0.00	0	0.08	0.00	0.00	99.97%	0.00000	0.00000	0.432	1.89	4.67	8.07E-01	1.61E-01	5	1
					17.25	75.56	T/yr PTE	0.01	0.02	T/yr Actual						
Truck Loadout	F-1	30.00	262,800	0.003	0.09	0.39	0.00%	0.09000	0.39420				0.00E+00	0.00E+00	5	
New Rail Loadout	F-2	30.00	262,800	0.003	0.09	0.39	0.00%	0.09000	0.39420				0.00E+00	0.00E+00	5	
Dust Bin	F-3	1.00	8,760	0.005	0.01	0.02	0.00%	0.00500	0.02190				0.00E+00	0.00E+00	5	1
Truck Loadout	F-4	1.00	8,760	0.003	0.00	0.01	0.00%	0.00300	0.01314				0.00E+00	0.00E+00	5	1
					0.19	0.82	T/yr PTE	0.19	0.82	T/yr Actual						

NA[a] - Particulates from this piece of equipment are captured by a ventilation system and discharged via the noted dust filter stack.

Calculated Permittable Emissions -- Option 1: Higher Process Rate

Description	Emiss. Point No.	Feed Rate (ton/hr)	Feed Rate (ton/yr)	Emission Factor (lb/ton)	Uncntrld. PTE PM-10 (lb/hr)	Uncntrld. PTE PM-10 (ton/yr)	Filter Control Effcy. 99.97%	Calc. Controlled PTE PM-10 (lb/hr)	Calc. Controlled PTE PM-10 (ton/yr)	Controlled Emissions PM-10 (lb/hr)	Controlled Emissions PM-10 (ton/yr)	Dispersion Model Factor (ug/m3 per lb/hr)	24-hr Max. (ug/m3)	Annual Max. (ug/m3)	AAQS - Non-Attain. PM-10 24-hr Std (ug/m3)	AAQS - Non-Attain. PM-10 Annual Std (ug/m3)
Carter Day Aspirator AK-6	EP-1a	60.00	525,600	0.08	4.80	21.02	99.97%	0.00144	0.00631	N/A[a]			0.00E+00	0.00E+00	5	1
Reclaim Leg/Bin	EP-1b	60.00	525,600	0.08	4.80	21.02	99.97%	0.00144	0.00631	N/A[a]			0.00E+00	0.00E+00	5	1
Reclaim/Elevator Dust Filter	EP-1	0.00	0	0.08	0.00	0.00	99.97%	0.00000	0.00000	0.513	2.24	4.34	8.91E-01	1.78E-01	5	1
					9.60	42.05	T/yr PTE	0.00	0.01	T/yr Actual						
Universal Leg L-1/Surge Bin	EP-2a	36.00	315,360	0.08	2.88	12.61	99.97%	0.00086	0.00378	N/A[a]			0.00E+00	0.00E+00	5	1
Separator/Aspirator M-208	EP-2b	36.00	315,360	0.08	2.88	12.61	99.97%	0.00086	0.00378	N/A[a]			0.00E+00	0.00E+00	5	1
Bin hopper	EP-2c	36.00	315,360	0.005	0.18	0.79	99.97%	0.00005	0.00024	N/A[a]			0.00E+00	0.00E+00	5	1
Quad Stacked Indent Cylinders	EP-2d	36.00	315,360	0.08	2.88	12.61	99.97%	0.00086	0.00378	N/A[a]			0.00E+00	0.00E+00	5	1
Bin hopper	EP-2e	36.00	315,360	0.005	0.18	0.79	99.97%	0.00005	0.00024	N/A[a]			0.00E+00	0.00E+00	5	1
Destoner	EP-2f	36.00	315,360	0.08	2.88	12.61	99.97%	0.00086	0.00378	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-2/Horizontal Scourer	EP-2g	36.00	315,360	0.08	2.88	12.61	99.97%	0.00086	0.00378	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-3/Buhler Tempering	EP-2h	36.00	315,360	0.08	2.88	12.61	99.97%	0.00086	0.00378	N/A[a]			0.00E+00	0.00E+00	5	1
Bin Loading (2-3,500 bu each)	EP-2i	36.00	315,360	0.005	0.18	0.79	99.97%	0.00005	0.00024	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-4/Surge Bin/Bagger	EP-2j	36.00	315,360	0.08	2.88	12.61	99.97%	0.00086	0.00378	N/A[a]			0.00E+00	0.00E+00	5	1
Grain Conditioning Dust Filter	EP-2	0.00	0	0.08	0.00	0.00	99.97%	0.00000	0.00000	0.432	1.89	4.67	8.07E-01	1.61E-01	5	1
					20.70	90.67	T/yr PTE	0.01	0.03	T/yr Actual						
Truck Loadout	F-1	36.00	315,360	0.003	0.11	0.47	0.00%	0.10800	0.47304				0.00E+00	0.00E+00	5	1
New Rail Loadout	F-2	36.00	315,360	0.003	0.11	0.47	0.00%	0.10800	0.47304				0.00E+00	0.00E+00	5	
Dust Bin	F-3	5.00	43,800	0.005	0.03	0.11	0.00%	0.02500	0.10950				0.00E+00	0.00E+00	5	
Truck Loadout	F-4	5.00	43,800	0.003	0.02	0.07	0.00%	0.01500	0.06570							
					0.26	1.12	T/yr PTE	0.26	1.12	T/yr Actual						

Calculated Permittable Emissions -- Option 2: Higher Process Rate and Lower Filter Efficiency

Description	Emiss. Point No.	Feed Rate (ton/hr)	Feed Rate (ton/yr)	Emission Factor (lb/ton)	Uncntrld. PTE PM-10 (lb/hr)	Uncntrld. Actual* PM-10 (ton/yr)	Filter Control Effcy. 99.90%	Calc. Controlled PTE PM-10 (lb/hr)	Calc. Controlled PTE PM-10 (ton/yr)	Controlled Emissions PM-10 (lb/hr)	Controlled Emissions PM-10 (ton/yr)	Dispersion Model Factor (ug/m3 per lb/hr)	24-hr Max. (ug/m3)	Annual Max. (ug/m3)	AAQS - Non-Attain. PM-10 24-hr Std (ug/m3)	AAQS - Non-Attain. PM-10 Annual Std (ug/m3)
Carter Day Aspirator AK-6	EP-1a	60.00	525,600	0.08	4.80	21.02	99.90%	0.00480	0.02102	N/A[a]			0.00E+00	0.00E+00	5	1
Reclaim Leg/Bin	EP-1b	60.00	525,600	0.08	4.80	21.02	99.90%	0.00480	0.02102	N/A[a]			0.00E+00	0.00E+00	5	1
Reclaim/Elevator Dust Filter	EP-1	0.00	0	0.08	0.00	0.00	99.90%	0.00000	0.00000	1.71	7.47	4.34	2.97E+00	5.94E-01	5	1
					9.60	42.05	T/yr PTE	0.01	0.04	T/yr Actual						
Universal Leg L-1/Surge Bin	EP-2a	36.00	315,360	0.08	2.88	12.61	99.90%	0.00288	0.01261	N/A[a]			0.00E+00	0.00E+00	5	1
Separator/Aspirator M-208	EP-2b	36.00	315,360	0.08	2.88	12.61	99.90%	0.00288	0.01261	N/A[a]			0.00E+00	0.00E+00	5	1
Bin hopper	EP-2c	36.00	315,360	0.005	0.18	0.79	99.90%	0.00018	0.00079	N/A[a]			0.00E+00	0.00E+00	5	1
Quad Stacked Indent Cylinders	EP-2d	36.00	315,360	0.08	2.88	12.61	99.90%	0.00288	0.01261	N/A[a]			0.00E+00	0.00E+00	5	1
Bin hopper	EP-2e	36.00	315,360	0.005	0.18	0.79	99.90%	0.00018	0.00079	N/A[a]			0.00E+00	0.00E+00	5	1
Destoner	EP-2f	36.00	315,360	0.08	2.88	12.61	99.90%	0.00288	0.01261	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-2/Horizontal Scourer	EP-2g	36.00	315,360	0.08	2.88	12.61	99.90%	0.00288	0.01261	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-3/Buhler Tempering	EP-2h	36.00	315,360	0.08	2.88	12.61	99.90%	0.00288	0.01261	N/A[a]			0.00E+00	0.00E+00	5	1
Bin Loading (2-3,500 bu each)	EP-2i	36.00	315,360	0.005	0.18	0.79	99.90%	0.00018	0.00079	N/A[a]			0.00E+00	0.00E+00	5	1
Universal Leg L-4/Surge Bin/Bagger	EP-2j	36.00	315,360	0.08	2.88	12.61	99.90%	0.00288	0.01261	N/A[a]			0.00E+00	0.00E+00	5	1
Grain Conditioning Dust Filter	EP-2	0.00	0	0.08	0.00	0.00	99.90%	0.00000	0.00000	1.44	6.29	4.67	2.69E+00	5.38E-01	5	1
					20.70	90.67	T/yr PTE	0.02	0.09	T/yr Actual						
Truck Loadout	F-1	36.00	315,360	0.003	0.11	0.47	0.00%	0.10800	0.47304				0.00E+00	0.00E+00	5	1
New Rail Loadout	F-2	36.00	315,360	0.003	0.11	0.47	0.00%	0.10800	0.47304				0.00E+00	0.00E+00	5	1
Dust Bin	F-3	5.00	43,800	0.005	0.03	0.11	0.00%	0.02500	0.10950				0.00E+00	0.00E+00	5	1
Truck Loadout	F-4	5.00	43,800	0.003	0.02	0.07	0.00%	0.01500	0.06570							
					0.26	1.12	T/yr PTE	0.26	1.12	T/yr Actual						

APPENDIX B

MODELING IMPACT ANALYSES

02/10/98 15:02:19

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 95250 ***

P-970132 General Mills Operations, Pocatello: Reclaim/Elevator System

SIMPLE TERRAIN INPUTS:
SOURCE TYPE = POINT
EMISSION RATE (G/S) = .126000
STACK HEIGHT (M) = 33.5000
STK INSIDE DIAM (M) = .8128
STK EXIT VELOCITY (M/S)= 25.2861
STK GAS EXIT TEMP (K) = 295.0000
AMBIENT AIR TEMP (K) = 293.0000
RECEPTOR HEIGHT (M) = 1.5000
URBAN/RURAL OPTION = URBAN
BUILDING HEIGHT (M) = .0000
MIN HORIZ BLDG DIM (M) = .0000
MAX HORIZ BLDG DIM (M) = .0000

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 27800.000 (ACFM)

BUOY. FLUX = .278 M**4/S**3; MOM. FLUX = 104.885 M**4/S**2.

*** FULL METEOROLOGY ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
50.	.8799E-01	2	5.0	6.0	1600.0	43.79	16.11	12.64	NO
100.	1.997	2	3.5	4.2	1120.0	48.19	31.66	25.52	NO
200.	3.294	3	2.0	2.5	640.0	57.71	42.90	40.59	NO
300.	3.306	3	1.0	1.3	320.0	81.91	63.88	61.57	NO
400.	3.285	6	1.0	1.4	10000.0	52.81	41.22	25.89	NO
500.	4.118	6	1.0	1.4	10000.0	52.81	50.51	30.74	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 50. M:

606.	4.337	6	1.0	1.4	10000.0	52.81	60.15	35.56	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	4.337	606.	0.

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 95250 ***

P-970132 General Mills Operations, Pocatello: Grain Conditioning Facility

SIMPLE TERRAIN INPUTS:
SOURCE TYPE = POINT
EMISSION RATE (G/S) = .126000
STACK HEIGHT (M) = 33.5000
STK INSIDE DIAM (M) = .8128
STK EXIT VELOCITY (M/S)= 21.8297
STK GAS EXIT TEMP (K) = 295.0000
AMBIENT AIR TEMP (K) = 293.0000
RECEPTOR HEIGHT (M) = 1.5000
URBAN/RURAL OPTION = URBAN
BUILDING HEIGHT (M) = .0000
MIN HORIZ BLDG DIM (M) = .0000
MAX HORIZ BLDG DIM (M) = .0000

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 24000.000 (ACFM)

BUOY. FLUX = .240 M**4/S**3; MOM. FLUX = 78.171 M**4/S**2.

*** FULL METEOROLOGY ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
50.	.1198	2	5.0	6.0	1600.0	42.38	16.04	12.56	NO
100.	2.313	1	3.0	3.6	960.0	48.30	31.66	25.52	NO
200.	3.856	3	1.5	1.9	480.0	61.36	43.08	40.78	NO
300.	3.802	3	1.0	1.3	320.0	75.30	63.50	61.18	NO
400.	3.737	6	1.0	1.4	10000.0	51.00	41.16	25.79	NO
500.	4.528	6	1.0	1.4	10000.0	51.00	50.46	30.65	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 50. M:

581.	4.673	6	1.0	1.4	10000.0	51.00	57.88	34.39	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	4.673	581.	0.