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CATEGORICAL EXCLUSION DETERMINATION
STORM WATER COLLECTION BASIN
NEPA DOC. NO. 209

08/24/88

DOE/DOE
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FMPC

NEPA DOCUMENTATION

COGNIZANT PROJECT ENGINEER	S. Chee
PROJECT LOCATION	Southwest Corner of FMPC
PROJECT/PROGRAM TITLE	83-D-146 (WATER POLLUTION CONTROL) STORM WATER COLLECTION BASIN
PROJECT COST	$1,550,000
CONSTRUCTION START DATE	May, 1984
PROJECT/PROGRAM NUMBER	00-86351
NEPA DOCUMENT NUMBER	000209
NEPA SUBMITTAL DATE	AUG 09 1988

PROJECT EXECUTIVE SUMMARY

This subproject is one of four developed to enable the FMPC to enhance its water pollution control system. The storm water collection basin was constructed to provide a means of controlling suspended solids, process spills, and eliminate the flow of storm drainage from the FMPC manufacturing areas into a branch creek leading into Paddy's Run. Guardrails were also installed at the entrance gate for operator safety and as a boundary indicator.

This NEPA Checklist addresses both the Storm Water Collection Basin and Guardrail project.

PROJECT JUSTIFICATION

Certain contaminant levels in FMPC effluent have the potential for exceeding federal and state limitations. It was predicted, based on previous data on flows and analyses of FMPC effluent, that an estimated 2495 kilograms per day (5,500 pounds per day) of nitrates had to be removed from the effluent stream to meet the limits of the 1984 NPDES (National Pollutant Discharge Elimination System) permit. Construction of the storm water collection basin was also needed to meet the regulatory requirement of "Best Available Technology Economically Achievable" (BATEA).

Cumulative impacts of this project have been assessed, and it has been determined that this action does not have a net adverse impact on the environment. Other options have not been precluded by this action.

EXISTING NEPA DOCUMENTATION/DATE SUBMITTED

NONE	N.C.	ADM.	E.A.
XX			

THIS NEPA DOCUMENT

N.C.	ADM.	E.A.	E.I.S.
AUG 09 1988			

DOE APPROVAL REQUESTED

DOE/FMPC XX

DOE/ORO

DOE/HQ

COGNIZANT PROJECT ENGINEER/DATE	KSSh for S. Chee 8-5-88
SITE NEPA COORDINATOR/DATE	[signature] 8-10-88
SITE NEPA MANAGER/DATE	[signature] 8-10-88
SITE DOE OFFICER/DATE	Ray Hansen 8/24/88
ADDITIONAL DOE APPROVAL(IF NEEDED) DATE	

001
5401.2

FMPC NEPA DOCUMENTATION		COGNIZANT PROJECT ENGINEER S. Chee
		PROJECT LOCATION Southwest Corner of FMPC
PROJECT/PROGRAM TITLE 83-D-146 (WATER POLLUTION CONTROL) STORM WATER COLLECTION BASIN		PROJECT COST $1,550,000
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1.0 PURPOSE AND NEED

A system was needed to collect FMPC storm water runoff and process it at a holding station to ensure that the FMPC would be able to meet the plant effluent requirements. The NPDES permit under which the FMPC has been operating since July 1977, has been revised by the U.S. Environmental Protection Agency to reflect more stringent effluent limitations. A collection basin process was needed to adhere to the following limitations set by the BATEA objectives:

Dissolved solids.....100 mg/l
Nitrates (N).....20 mg/l
Ammonia (N).....1 mg/l
Chlorides.....100 mg/l
Fluorides.....1 mg/l
Suspended solids.....5 mg/l

2.0 PROPOSED ACTION

The proposed action was to construct a basin sized to hold all the storm water drainage, 9.7 X 10^{-3} kiloliters (2.6 million gallons) with an available flow of approximately 1,137 liters/minute (300 gallon/minute) to the discharge stream from the bioreactor and the coal pile. A guard rail was also installed at the driveway as a safety accessory to prevent accidental falls and serve as a boundary indicator.

During the process, less than 5 ppm of suspended solids concentration in the storm water would be pumped from the collection basin. This project was conducted in conformance with DOE, OSHA, and FMPC regulations governing health and safety. All relevant permits required for construction were obtained.

3.0 ALTERNATIVES CONSIDERED

3.1 No Action

If no action were taken, the FMPC would not have been able to comply with the plant effluent requirements established under the provisions of the Federal Water Control Act of 1972.

3.2 Alternative Action

An alternative would have been to construct a new facility adjacent to the existing sump and to combine both systems under a single process control system. However, this system would not

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have been effective because an expanded process of this type would have been very difficult to use to control pollutants and would have required a highly complex instrumentation control system.

3.3 Proposed Action

The previously proposed action was preferred because it easily alleviated the problem of excess contaminants entering natural streams by utilizing a simple, maintainable control system. This action also met the "Best Available Technology Economically Achievable" (BATEA) requirements.

4.0 POTENTIAL ENVIRONMENTAL IMPACTS OF PROPOSED ACTION

This project was undertaken in order to meet source wastewater limitations imposed by the NPDES permit. Since the pollution control system has been operating, fewer contaminants have been discharged to the Great Miami River and anticipated revisions of the site 1977 NPDES permit have been met.

Uncontaminated soil and scrap were the only construction wastes generated during the installation of the basin. Table 1 identifies these materials and their related quantities:

TABLE 1

Material	Quantity
Soil	450 metric tons
Scrap metal and wood	1,400 kg

Heavy equipment such as a grader and earth-moving pan was required for soil excavation. Overall construction was completed in approximately 12 man-years. The storm water collection basin is basically an earthen pit, rubber lined to prevent seepage. It is a staging area for processing storm water runoff. The amount of construction waste generated is included in the bi-monthly report (WMCO:SR:(IA):88-0188).

5.0 CONCLUSION

The storm water collection basin has provided for the impoundment and settling of all rain water falling within the production area. In doing so, contaminant levels in the effluent from the FMPC have less potential to exceed federal and state limitations.

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This project represents an action taken during the course of an ongoing EIS, as defined by the Council on Environmental Quality (40 CFR 1506.1). As such, this action:

1) Had no net adverse environmental impact. Constructing the new storm water collection basin helps improve and maintain the water quality coming from the FMPC. A significant amount of uncontaminated construction rubble was generated during the course of this project; however, this was largely offset by the reduction of contaminated stormwater discharged into Paddy's Run and the Great Miami River.

2) Did not preclude the choice of reasonable alternatives. Should the new storm water collection basin no longer be needed, it can be demolished and dispositioned.

6.0 CUMULATIVE IMPACTS

No net negative environmental impacts have resulted from this project. Other reasonable alternatives have not been precluded by this action.

FMPC NEPA DOCUMENTATION ATTACHMENT		COGNIZANT PROJECT ENGINEER S. Chee
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PROJECT/PROGRAM TITLE 83-D-146 (WATER POLLUTION CONTROL) STORM WATER COLLECTION BASIN		PROJECT COST $1,550,000
PROJECT/PROGRAM NUMBER 18-83501	THIS NEPA DOCUMENT 000209	CONSTRUCTION START DATE May, 1984
		NEPA SUBMITTAL DATE [illegible] 1988

1.0 Will any of the following be encountered, handled, stored, used, or disposed of during the construction of the proposed program or project?

	Y	N	U
Radioactive materials (identify)		X	
Hazardous materials (identify)		X	
Toxic materials (identify)		X	
Mixed hazardous and radioactive materials (identify)		X	
PCB's (identify source)		X	
Asbestos (identify source)		X	
Organic chemicals (identify)		X	
Heavy metals (identify)		X	

2.0 Will program activities involve discharges to any one of the following systems during the construction of the proposed project?

	Y	N	U
Low level waste disposal (describe)		X	
Process waste stream		X	
Sanitary waste stream		X	
Storm sewer		X	

3.0 Will any of the following be encountered, handled, stored, used, or disposed of during operation of, or following the proposed program changes?

	Y	N	U
Radioactive materials (identify) Contaminated storm water in reduced amounts	X		
Hazardous materials (identify) Contaminated storm water in reduced amounts	X		
Toxic materials (identify)		X	
Mixed hazardous and radioactive materials (identify) Same as above	X		
PCB's (identify source)		X	

	Y	N	U
Asbestos (identify source)		X	
Organic chemicals (identify) Motor oils and fuels in reduced amounts	X		
Heavy metals (identify)		X	

4.0 Will program activities involve discharges to any one of the following systems during operation of, or following the proposed program changes?

	Y	N	U
Low level waste disposal (describe)			X
Process waste stream			
Sanitary waste stream		X	
Storm sewer Waste water	X		

5.0 Are uncontrolled emissions, discharges, or spills possible during:

	Y	N	U
The construction phase of this project?		X	
The operational phase, upon completion of the project?		X	

6.0 Will the project involve any of the following:

	Y	N	U
Need for aboveground storage during construction?			
Liner materials, piping	X		
Need for underground storage during construction?		X	
Need for aboveground storage during operations?		X	
Need for underground storage during operations?		X	

7.0 Is the project located in close proximity to a natural stream or within the floodplain of a natural stream?

	Y	N	U
		X	

8.0 Are controlled emissions or discharges planned during:

	Y	N	U
The construction phase of this project?		X	
The operational phase, upon completion of this project?			
Processed storm water	X		