Subject: PLANT POND, PIT AND PAD PUMP-OUT

TABLE OF CONTENTS

* Revised

TT-27

1.0 INTRODUCTION

1.1 Purpose

To establish the procedure for discharging water from the various in-plant pits, ditches, ponds, lagoons, and other surface run-off collection points not addressed in other operating procedures.

1.2 Background

There are several places in the plant where potentially contaminated water is collected and analyzed for subsequent controlled discharge to the combination stream or other place as described in the body of the procedure. Controlled discharge is necessary to guard against contaminating the outfall streams.

2.0 SAFETY PRECAUTIONS

The health and safety precautions and requirements contained in Operating Procedure G-160 are to be followed.

3.0 REFERENCES

3.1 Operating Procedure N-290-8, "Combination Stream Contamination Control"

3.2 Operating Procedure G-160, "Health and Safety Precautions and Requirements"

4.0 PROCEDURE

4.1 No. 1 Emergency Basin

4.1.1 The basin is normally discharged directly to the combination stream by way of the outfall of the sanitary lagoon.

4.1.2 The basin pump discharge should be sampled approximately every 8 hours while pumping. Analyze for nitrates, fluorides, uranium and pH.

4.1.3 The pump discharge flow rate should be checked and logged once during each shift.

4.1.4 Monitor the routine sample results of the combination stream, and adjust the basin discharge rate as necessary to prevent exceeding the limits listed in Operating Procedure N-290-8.

4.2 Yellowcake Pad Sumps

4.2.1 The sumps are normally drained to the combination stream as necessary to maintain the sumps at low level in readiness to receive surface run-off from the yellowcake pad.

4.2.2 The drains are to be kept closed except during intentional draining operations.

4.2.3 Sumps are to be sampled prior to each draining. Additional samples of the sumps are to be taken approximately every 8 hours when additional rainfall is experienced while draining. Analyze for uranium. The northeast yellowcake sump should also be analyzed for nitrates and fluorides.

4.2.4 The discharge rate must be reduced whenever necessary to prevent contamination of the combination stream.

4.2.5 The northeast yellowcake pad sump drains to the roof drain sewer which, in turn, normally drains to the combination stream.

4.2.6 If the northeast yellowcake sump becomes contaminated, the sump discharge may be diverted to the No. 1 Emergency Basin by closing the valve on the roof drain sewer going to the combination stream. This directs the roof drain sewer to No. 1 basin by way of the containment ditch north of the cooling tower.

4.2.7 In certain emergency situations, it may be necessary to transfer water overland by hose and portable pump from a yellowcake pad sump to the raffinate clarifiers. An example would be nitric acid spillage to the sump from the ADU Slurry Building.

4.3 Solid Waste Holding Area Sump

4.3.1 Pump out the sump as necessary to maintain the sump at low level. Pump directly into the combination stream at the sanitary lagoon outfall, or into the No. 1 Emergency Basin as directed by the Waste Management Supervisor.

4.3.2 Sample the sump once a day on the day shift during pumping operations. Analyze for nitrates, fluorides, uranium and pH.

4.4 Incinerator Pit

4.4.1 Pump out the pit directly to the No. 1 Emergency Basin or to the containment ditch lagoon north of the cooling tower as necessary for incinerator operations.

4.4.2 Sample the pit for uranium prior to pumping.

4.5 Containment Ditch/Lagoon North of the Cooling Tower

4.5.1 Drain the ditch to the No. 1 Emergency Basin or transfer directly to the combination stream at the sanitary lagoon outfall to maintain the ditch at low level.

4.5.2 Sample the pump discharge prior to pumping and approximately every 8 hours while pumping directly to the combination stream.

4.5.3 Regulate the transfer pump discharge flow to prevent exceeding the limits for the combination stream.

4.5.4 Shut down the transfer pump whenever there is known or suspected chemical spillage to the containment ditch. Re-sample the ditch and obtain the supervisor's approval to restart the pump.

4.6 Miscellaneous Sumps, Ditches, Containments, and Wells

Occasionally, liquids must be transferred out of miscellaneous sumps, ditches, containments, wells, etc. The transfers from them must be considered on a case by case basis and procedural action will be directed by the shift supervisor.

* 4.7 Pumping Utility Trench Sumps

4.7.1 Pump Utility Trench Sumps (listed a & b) once per week (pumping date will be scheduled by supervision).

a. Sample each utility trench sump prior to pumping. Submit samples to process laboratory for uranium (U), nitrates (NO_3), and pH.

b. Determine and record quantity (gallons) of liquid pumped from each utility trench sump. Also, record date and time.

* Revised

4.7.2 Disposition of Liquids Pumped

a. Liquids from the following sumps are to be transferred to S-X for processing:

(1) Sump # 2
(2) Sump # 9

b Liquids from the following sumps are to be transferred to 2A clarifier for processing:

(1) Sump # 1
(2) Sump # 3
(3) Sump # 5
(4) Sump # 6
(5) Sump # 10
(6) Sump # 11
(7) Sump # 12
(8) Sump # 13
(9) Sump # 14
(10) Sump # 15
(11) Sump # 15A
(12) Sump # 16
(13) Sump # 23
(14) Sump # 24

4.8 Digestion Area - Between Floors Inspection Well

4.8.1 Inspect once per week for liquid accumulation between the stainless steel and concrete floor.

4.8.2 If any liquid is found during the inspection, extract, determine quantity and submit a sample to the process laboratory for uranium (U), nitrates (NO_3) and pH. Record all activities and data: date, time, quantity, analysis, etc.

4.9 Denitration Area - Denitration Subfloor Monitors

4.9.1 Inspect once per day for liquid accumulation in denitration subfloor monitor.

4.9.2 If any liquid is found, pump, determine quantity and submit a sample to the process laboratory for uranium (U), nitrates (NO_3), and pH. Record all activities and data: date, time quantity, analysis, etc.

* Revised

Subject: PLANT POND, PIT AND PAD PUMP-OUT

REVIEWED AND APPROVED BY:

Manager, Engineering: S R Fuyer

Manager, Laboratory: D. R. Kahn

Manager, Maintenance: R Abbott

Manager, Operations: M. Cobb

Manager, Health, Safety & Environment: Rick Callahan for Mr Nichols

PORC Chairman/ Manager, Procedures & Training: Denise Martin — 12-13-90 Date

APPROVED BY:

Senior Vice President: J H Montgomery — 12-13-90 Date

This procedure is effective 12/21/90.

TRAINING/IMPLEMENTATION TABLE

The following implementation action is required:

Department	Action Level				
	0	1	2	3	4
Engineering	✓				
Laboratory	✓				
Maintenance	✓				
Operations		✓			
Health & Safety	✓				
Security	✓				
Administration	✓				
Other					

LCS case

* Revised