

# Abay GERD Token Smart Contract Audit Summary

## Contract Overview

Token: Abay GERD Token (GERD)

Decimals: 2

Fixed Supply: 120,000,000,000 GERD (minted once)

Security: No owner, no minting after deployment, no upgrade hooks

Compiler Optimization: Not enabled

## Security Review

- Reentrancy: Safe
- Integer Overflows: Safe (Solidity ^0.8.3)
- Access Control: No admin roles or ownership
- Upgradeability: Immutable
- External Calls: Safe usage

## ERC-20 Compliance

Fully implements core ERC-20 interface: name, symbol, decimals, transfer, approve, transferFrom, allowance.

Emits Transfer and Approval events as expected.

Missing: burn() function, permit() (optional).

## Gas Efficiency

- Optimizer: Not enabled at deployment (missed opportunity for gas savings)
- Looping: No gas-heavy patterns
- Decimals override implemented efficiently

## Recommendations

1. Add burn() function to allow users to destroy their own tokens.
2. Enable compiler optimization in future contracts to improve gas performance.

## Verdict

The contract is safe, minimal, immutable, and ERC-20 compliant.

No critical vulnerabilities found.

Ready for public use with only minor feature enhancement recommendations.